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PRESERVATION SERVICES
LEAFLET

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Disaster Prevention and Protection Checklist

The inspection checklist provided on the following seven pages is designed to be used as part of an institutional disaster preparedness program. Through the periodic inspections and information-gathering activities outlined here, staff can reduce an institution's vulnerability to disaster. Some of this information may be gathered in regular tours of the building, while other elements can be ascertained in conversations with others in the organization.

The information gathered is of use in two primary ways. First, some conditions will require repair, replacement, or other maintenance activity. For example, if drains are not flowing freely from the roof, a simple cleaning will remedy that condition. Or if fire extinguishers are missing from a critical area, they may be purchased and installed. Second, staff will identify some conditions that are not easily remediable. The existence of such conditions will alert the institution to vulnerabilities that must be considered in the institution's disaster plan. For example, if there is no automatic fire suppression capability, it may not be immediately installed. But this vulnerability should signal the disaster preparedness team to plan carefully for other strategies that will reduce the risk of fire.

In actual use, an institution may create its own checklists based on the frequency with which each item needs to be checked. Some will need attention only once or every few years (e.g., identifying the type of roof on the structure). Others will require annual or semi-annual inspections, as is the case with furnace and boiler inspections. Others will merit monthly or quarterly attention, such as fire extinguisher inspections and examination of the plumbing.

Many of the inspections outlined here are likely to be the duty of personnel responsible for facilities maintenance. In those cases, the repository staff need only (a) develop mechanisms for learning of remedial actions that are needed and (b) verify that the inspections are done as scheduled. Those areas not included in inspections by facilities staff should be assigned to staff in the library/archives. One individual should keep copies of the completed checklists and track progress in completing repairs and other actions noted on the forms; this may be done by the administrator responsible for the building or by the chair of the disaster preparedness committee.

Most librarians and archivists require some education in order to carry out a disaster preparedness program. A bibliography of readings (available from SOLINET Preservation Services) will provide a good starting point. Training programs on disaster preparedness are offered by SOLINET and other organizations throughout the country. Contact the Preservation staff at the above address for further information.

Area/Item to be Inspected	**Condition OK?**	**Action Required (Describe in detail)**	**Action Complete (date and initial)**

1. Outdoor hazards:

*   **Railings, benches, planters, light/flag poles well anchored?**   yes / no   _____   _____

*   **Overhanging trees/branches trimmed?**   yes / no   _____   _____

2. Building:

*   **No sign of cracks/seepage visible in exterior or interior walls?**   yes / no   _____   _____

*   **Compliance with seismic, fire, electrical, and other codes?**   yes / no   _____   _____

3. Roof:

*   **"Sloped" or "pitched" (i.e., not flat)?**   yes / no   _____   _____

*   **Roof covering sound? No buckling/bubbles, leaks, cracks, standing water?**   yes / no   _____   _____

*   **Flashing/caulking intact?**   yes / no   _____   _____

*   **Equipment on roof prohibited? or (if present) properly anchored?**   yes / no   _____   _____

4. Drainage: (eaves, gutters, downspouts, scuppers, drains, interior columns)

*   **Connected into sewer system? Water directed away from building footings?**   yes / no   _____   _____

*   **Draining freely?**   yes / no   _____   _____

*   **Good drainage around doors?**   yes / no   _____   _____

Area/Item to be Inspected	Condition OK?	Action Required (Describe in detail)	Action Complete (date and initial)

5. Windows and skylights:

*   **Caulking/sealants sound?**   yes   _____   _____
                                        no   _____   _____

*   **Trees/limbs trimmed away?**   yes   _____   _____
                                        no   _____   _____

6. Fire safety:

*   **Fire-resistant structure?**   yes   _____   _____
                                        no   _____   _____

*   **Concrete flooring, with no air passages between floors?**   yes   _____   _____
                                        no   _____   _____

*   **Concealed spaces (e.g., false ceilings) identified?**   yes   _____   _____
                                        no   _____   _____

*   **Fire detection in all concealed spaces?**   yes   _____   _____
                                        no   _____   _____

*   **Stairways and pipe shafts enclosed?**   yes   _____   _____
                                        no   _____   _____

*   **Electrical wiring in good condition?**   yes   _____   _____
                                        no   _____   _____

*   **Appliance cords in good condition?**   yes   _____   _____
                                        no   _____   _____

*   **Appliances unplugged nightly?**   yes   _____   _____
                                        no   _____   _____

*   **Do staff have keys to mechanical rooms and janitorial closets?**   yes   _____   _____
                                        no   _____   _____

*   **Regular Fire Marshall visits?**   yes   _____   _____
                                        no   _____   _____

*   **Fire Marshall visits used productively? (e.g., floor plans given to Fire Department; high priority collection areas noted; appropriate follow-up on observed Code violations)**   yes   _____   _____
                                        no   _____   _____

Area/Item to be Inspected	Condition OK?	Action Required (Describe in detail)	Action Complete (date and initial)
(Fire Safety, continued)			
* **Detection systems:** **- appropriate type(s) present?**	**yes** **no**	_____ _____	_____ _____
- wired to 24-hour monitoring station?	**yes** **no**	_____ _____	_____ _____
- tested regularly?	**yes** **no**	_____ _____	_____ _____
* **Appropriate extinguishers present? Inspected appropriately and on schedule?**	**yes** **no**	_____ _____	_____ _____
* **Automatic suppression system (i.e., sprinklers, Halon) present and operating?**	**yes** **no**	_____ _____	_____ _____
* **Staff trained in:** **- sounding alarms?**	**yes** **no**	_____ _____	_____ _____
- interpreting annunciator panels (if present)?	**yes** **no**	_____ _____	_____ _____
- notifying Fire Dept. and others as called for?	**yes** **no**	_____ _____	_____ _____
- using extinguishers?	**yes** **no**	_____ _____	_____ _____
- turning off power, HVAC, sprinklers, gas main?	**yes** **no**	_____ _____	_____ _____
- closing fire doors?	**yes** **no**	_____ _____	_____ _____
- overseeing evacuation?	**yes** **no**	_____ _____	_____ _____

Area/Item to be Inspected	Condition OK?	Action Required (Describe in detail)	Action Complete (date and initial)

7. Heating, ventilation, and air-conditioning (HVAC) system:

* Automatic shut-off capacity in event of fire?	yes no	_____ _____	_____ _____
* Furnace/boiler inspected each fall?	yes no	_____ _____	_____ _____

*   Air conditioning:
        - no leaks?
        - no mold present?
	yes
	no
	yes
	no
		_____
		_____
		_____
		_____
			_____
			_____
			_____
			_____

- effective drainage from condensation-collecting pans?	yes no	_____ _____	_____ _____
- dehumidification capacity?	yes no	_____ _____	_____ _____
- capable of operating on exhaust to reduce smoke?	yes no	_____ _____	_____ _____

8. Stack areas:

* Shelves well braced?	yes no	_____ _____	_____ _____
* No water sources located above collections?	yes no	_____ _____	_____ _____
* Books shelved snugly?	yes no	_____ _____	_____ _____
* Shelving 4-6" off floor?	yes no	_____ _____	_____ _____
* "Canopies" atop shelving units?	yes no	_____ _____	_____ _____
* No valuable materials in basement?	yes no	_____ _____	_____ _____
* Exits unobstructed?	yes no	_____ _____	_____ _____
* Important collections away from windows?	yes no	_____ _____	_____ _____

Area/Item to be Inspected	Condition OK?	Action Required (Describe in detail)	Action Complete (date and initial)

9. Protection from water damage:

* **Pipes and plumbing well supported?**   yes / no   _____ _____   _____ _____

* **No pipe/plumbing leaks?**   yes / no   _____ _____   _____ _____

* **Water detectors present?**   yes / no   _____ _____   _____ _____

* **Sump pumps and back-ups present?**   yes / no   _____ _____   _____ _____

* **Appropriate dehumidifiers available?**   yes / no   _____ _____   _____ _____

* **No leakage/seepage through walls?**   yes / no   _____ _____   _____ _____

* **Valuable materials stored above ground level?**   yes / no   _____ _____   _____ _____

* **Valuable and fragile media stored in protective enclosures?**   yes / no   _____ _____   _____ _____

* **Do staff have keys to mechanical rooms and janitorial closets?**   yes / no   _____ _____   _____ _____

* **Do staff know location of water main and have appropriate tools (if needed) for shut-off?**   yes / no   _____ _____   _____ _____

10. Security:

* **Book drops (if any) located away from building or in fire resistant enclosure?**   yes / no   _____ _____   _____ _____

* **Building exterior well lighted?**   yes / no   _____ _____   _____ _____

* **Locks/alarms on all windows and doors?**   yes / no   _____ _____   _____ _____

Area/Item to be Inspected	Condition OK?	Action Required (Describe in detail)	Action Complete (date and initial)

(Security, continued)

*   **Intrusion detectors/alarms present and monitored 24 hours?**   yes / no   _____ / _____   _____ / _____

*   **Effective closing procedures to ensure building is vacant?**   yes / no   _____ / _____   _____ / _____

11. Housekeeping:

*   **Cleaning supplies and other flammables stored safely?**   yes / no   _____ / _____   _____ / _____

*   **Trash removed nightly?**   yes / no   _____ / _____   _____ / _____

*   **Staff room cleaned daily and well?**   yes / no   _____ / _____   _____ / _____

*   **Smoking prohibited?**   yes / no   _____ / _____   _____ / _____

*   **Food and drink prohibited? And prohibition enforced?**   yes / no   _____ / _____   _____ / _____

*   **Pest management strategies in place and effective?**   yes / no   _____ / _____   _____ / _____

12. Insurance:

*   **Policy up to date?**   yes / no   _____ / _____   _____ / _____

*   **"Acts of God" covered?**   yes / no   _____ / _____   _____ / _____

*   **Replacement costs specified as needed?**   yes / no   _____ / _____   _____ / _____

*   **Staff aware of records required for claim, and those records maintained safely?**   yes / no   _____ / _____   _____ / _____

*   **Duplicate shelflist, catalog, inventory, and/or back-up computer tapes for entire collection?**   yes / no   _____ / _____   _____ / _____

Area/Item to be Inspected	Condition OK?_____	Action Required (Describe in detail)	Action Complete (date and initial)

13. Construction projects:

* **Responsibility for fire safety precautions clearly specified in contract?**	**yes** **no**	_____ _____	_____ _____
* **Fire guards used in all cutting/welding operations?**	**yes** **no**	_____ _____	_____ _____
* **Debris removed nightly?**	**yes** **no**	_____ _____	_____ _____
* **Fire-resistant partitions used?**	**yes** **no**	_____ _____	_____ _____
* **Extra fire extinguishers on hand?**	**yes** **no**	_____ _____	_____ _____

SOLINET™

In-House Supply Stockpile Checklist

OPERATIONAL SUPPLIES

	Location	Quantity	Date Checked
batteries	_____	_____	_____
book trucks	_____	_____	_____
boots, rubber	_____	_____	_____
brooms, regular	_____	_____	_____
brooms with squeegees	_____	_____	_____
cleaning compounds	_____	_____	_____
extension cords (3-wire, grounded, 50 feet)	_____	_____	_____
first aid kits	_____	_____	_____
flashlights	_____	_____	_____
fungicide (Lysol)	_____	_____	_____
garbage bags	_____	_____	_____
generator, portable	_____	_____	_____
identification badges	_____	_____	_____
light sticks, chemical	_____	_____	_____
lights, shop	_____	_____	_____
mop buckets	_____	_____	_____
mops	_____	_____	_____
plastic sheeting	_____	_____	_____
protective masks and gloves	_____	_____	_____
scissors	_____	_____	_____
shovel	_____	_____	_____
walkie-talkies	_____	_____	_____
wet/dry vacuum(s)	_____	_____	_____

_____   _____   _____   _____

_____   _____   _____   _____

_____   _____   _____   _____

PACKING SUPPLIES

	Location	Quantity	Date Checked
boxes, cardboard	_____	_____	_____
bread trays, plastic buckets	_____	_____	_____
(for photos)			
freezer or waxed paper	_____	_____	_____
hoses, water	_____	_____	_____
labels, adhesives	_____	_____	_____
milk crates, plastic	_____	_____	_____
notepads	_____	_____	_____
packing slips	_____	_____	_____
pens/pencils	_____	_____	_____
plastic sheeting	_____	_____	_____
scissors	_____	_____	_____
tape, filament	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

DRYING SUPPLIES

	Location	Quantity	Date Checked
clothesline (30lb monofilament	_____	_____	_____
or nylon			
clothes pins, plastic	_____	_____	_____
dehumidifiers	_____	_____	_____
fans	_____	_____	_____
hygrometers	_____	_____	_____
paper for interleaving (paper	_____	_____	_____
towels or unprinted newsprint)			

_____   _____   _____   _____
_____   _____   _____   _____
_____   _____   _____   _____

<u>CONSTRUCTION MATERIALS</u>

	Location	Quantity	Date Checked
crowbar	_____	_____	_____
duct tape	_____	_____	_____
hammers	_____	_____	_____
hand saw	_____	_____	_____
ladders	_____	_____	_____
nails, miscellaneous sizes	_____	_____	_____
plywood, assorted sizes	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

DISASTER CONTROL PLAN COMMENTARY

CONTENTS

Introduction

This commentary is designed to be read in conjunction with the Disaster Control Plan template. It will provide guidance to completing the template in a manner which will result in a useful, institutionally specific, disaster control plan. This commentary and the template are available for download at the M25 disaster planning website: http://www.m25lib.ac.uk/m25dcp.

Fostering a Disaster Management Culture

Fostering a Disaster Management Culture will involve everyone, including the senior management in the library or archive and the release of resources in terms of time and money. It is essential that such action be taken for disaster planning to be effective within the organisation, particularly in the area of prevention. Planning should be approached with the worst-case scenario in mind. Preparation and resourcing for a large scale disaster can be scaled down to deal with minor disasters. The reverse does not apply.

The resources necessary to assure successful disaster planning will include:
- Cost of emergency stores.
- Cost of trolleys/bins to contain those stores.
- Staff time in preparing the Disaster Control Plan.
- Staff time in maintaining the Disaster Control Plan.
- Staff time in undertaking any action identified by the risk assessment.
- Financial costs of undertaking any action identified by the risk assessment.
- Staff time in training and testing the Disaster Control Plan.

Careful consideration should be given to the staff member(s) chosen to undertake the managerial responsibility for disaster planning, as only senior staff will have the access to resources and influence with senior institutional management necessary, to progress the plan. There are three distinct roles to be undertaken. These may be combined in a single person, especially in smaller institutions:

The **Disaster Manager**, who has budgetary control and liaises with senior institutional management and other departments; e.g. Estates, Finance and Security.

The **Disaster Reaction Manager**, who co-ordinates the immediate response to any disaster. This individual must be a senior manager in order that he/she has the necessary authority to deal with the situation. He/she must also be capable of remaining calm, decisive and level headed under great pressure. The Disaster Reaction Manager must also be able to communicate well, organise staff teams and have a good knowledge of the Library or Archive and its holdings.

The **Disaster Recovery Manager**, who undertakes those tasks leading to the restoration of the Library's or Archive's services, e.g. bringing temporary accommodation or storage on line, activating access agreements, arranging for the disaster area to be cleaned and restored and overseeing conservation and restoration

of damaged stock. This person will link the recovery procedures to the institution's business and service continuity plans.

Special Collections

Many institutions' collections contain material that falls under the broad heading of "Special Collections". Such material, by virtue of its uniqueness, rarity, significance or physical fragility, merits special attention in any Disaster Control Plan. It is particularly important for smaller institutions, where Special Collections material perhaps constitutes only a very small proportion of the total holdings and where no one member of staff is responsible for this material, to take account of the particular requirements of this rarest and most valuable area of stock. Special Collections may take many forms or formats; the list below is by no means exhaustive:

- Printed volumes, which may range in date from the fifteenth to the twenty-first centuries and can also vary greatly in physical structure (paper type, binding type, whether printed throughout or containing manuscript illuminations or inscriptions) and state of physical robustness.

- Manuscripts, which, again, may vary widely in date, type of ink or other substance used or physical format (codex, roll, single sheet, etc.).

- Archives or institutional records. These, again, can vary greatly in format (bound volumes, albums, folders, files, loose sheets, disks, etc.); material may be boxed, mounted in bound volumes or enclosed in envelopes or may be without any protective housing.

- Photographs (negatives, slides or prints).

- Works of art (on paper, on canvas, sculptural, etc.).

- Artefacts (which may be textiles, ceramics, metalwork, etc.)

- Maps (flat or rolled)

- Audio-visual material (tapes, LP records, CDs, rolls of cinematic film, videos, DVDs, etc.)

- Microform (film or fiche).

The special requirements of whichever of these formats an institution's collections contain should be borne in mind at all stages of the compilation of the Disaster Control Plan.

Press and media relations
During a disaster the media can take up a great deal of time and will search tenaciously for a "good story". They can also be very helpful in disseminating information, e.g. on temporary services. Larger libraries may wish to consider appointing and training their own Press Officer, although the latter role will be undertaken by the relevant department in many institutions. All enquiries from the media should be directed to the Press Officer, who will need to recognise and fulfil the needs of journalists as far as is consistent with the work in progress. The Press Officer should liaise with the Disaster Recovery Manager.

The Press Officer should make use of the following publicity channels:

- Notices on the doors of all site libraries or reading rooms.

- Press releases.

- Library, information science and archivists' professional press.

- Email discussion lists and bulletin boards.

- Letters to volunteers and Friends organisations.

- The institution's home page.

- Letters to sponsors and funding bodies.

- Notification to other libraries or archives from which referrals are regularly received.

(Adapted from London Guildhall University, Academic Services, The Fawcett Library, The Fawcett Library Disaster Plan. Prepared by Christine Wise. 1995-6. Revised 1997.)

Conclusion
Almost all library staff and archivists of any experience will have been involved either in a disaster (major or minor) or in a near escape. Although it may be easy to engage initial interest, it can be difficult to maintain a level of awareness and enthusiasm over the long term. Management attitudes, a written Disaster Control Plan, a training programme based on that plan and adequate resources should combine to foster a Disaster Management Culture and equip staff to be in a state of readiness should a disaster occur.

Prevention

The objective of the prevention phase of disaster planning is, so far as possible, to foresee and avert potential disasters, by assessing areas of vulnerability and taking preventive action.[3]

Risk Assessment

The first step in disaster prevention is to undertake a risk assessment. It should be noted that disasters - other than natural catastrophes - are seldom caused by a single incident[3] and are therefore to some extent preventable. The risks to each institution may vary, but the following should be considered: fire, flood, theft, vandalism, document deterioration, environmental conditions, infestation and bomb threats. Expertise to help in undertaking the risk assessment may be available in-house, or from local emergency services e.g. fire and crime prevention officers. It is also possible to retain external consultants to carry out the work. Where archive collections are held, the advice and assistance from a local archives repository should be sought, and particularly the services of a conservator.

When completed, the risk assessment is likely to highlight several areas in which improvements need to be made or where more information is required. Implementing the recommendations which come out of the risk assessment, as well as ensuring that your plan works smoothly should it ever have to be implemented, will almost certainly involve liaison with other departments within the organisation, such as senior institutional management, Estates, Security and Finance. It is very important that relations with these departments are good and that regular contact is maintained at a senior level. This underlines the need for the staff member responsible for Disaster Management to hold a senior position within the Library and Archive structure

The results of the risk assessment should be noted in the prevention section of the written Disaster Control Plan along with the status of any necessary remedial action and all maintenance or security routines etc. Simple good housekeeping practices can mitigate the likelihood of many disasters

Risk assessments will need to be repeated and documented regularly, particularly after building alterations

Building Maintenance

A regime of planned and documented building maintenance will go a long way towards minimising the risk of floods, fire, theft, vandalism and invasion by pests. Routines should include regular temperature and humidity checks in areas designated as vulnerable to damp. Extra precautions should be taken during building work. Those responsible should sign to state that the relevant checks and maintenance routines have been carried out. Establish the optimum period of review.

Equipment Maintenance

Equipment maintenance is essential both to ensure that equipment failure does not cause a disaster and to assure the reliability of equipment in a disaster situation. Ensure that equipment stored to deal with a disaster is included in maintenance routines. Those responsible should sign to state that the relevant checks and maintenance routines have been carried out. Establish the optimum period of review.

Security Measures

Security measures may need to be reviewed and if necessary tightened to prevent damage arising from break-ins, vandalism, bomb attacks or arson. For example, remove large shrubs and trees from around buildings to reduce cover for prowlers and position book drops where they can be monitored. Use toughened glass and increase security patrols where resources permit. Readers should be encouraged not to leave their belongings unattended. Staff should be encouraged to observe readers and note any unusual behaviour. Consultation between library and institutional security staff can provide library staff with advice on improving security procedures.

Security measures within the library need to be particularly tight where the threat of bomb attacks is considered a genuine risk. Expert advice should be sought before drawing up procedures to deal with a bomb alert.

The special needs and vulnerability of archival and special collections material should be considered. Where archives, particularly those containing loose, unmounted items, are held, advice should be sought from a professional archivist on supervision procedures. However common security procedures include: not allowing readers to take bags into the reading room; placing security cameras in the reading room; strictly supervising the reading room; limiting the number of files or volumes a reader can consult at any one time (generally 4-6); not allowing readers to bring their own stationery into the reading room; requiring that notes are taken in pencil only and posting security guards at the exit to the reading room empowered to search readers' files as they leave. Document scales can be used to weigh files before they are given to readers and again when they are returned. These scales will detect the absence of a small item, such as a stamp or snipped-out signature.

Institutions holding collections of rare printed books or manuscripts should bear in mind the desirability of such material to professional thieves, and the fact that the growth of online catalogues has made it far easier for the location of such items to be discovered. The Rare Books Group of CILIP has produced a helpful policy[§] and the Antiquarian Booksellers' Association (ABA) can also provide help and support. If material is exhibited outside the reading room, its security when on display needs to be ensured.

Location of Collections

[§] CILIP Rare Books Group. *Theft of Books and Manuscripts from Libraries: an advisory code of conduct for booksellers and librarians*. At http://www.cilip.org.uk/groups/rbg/theftpolicies.html.

The location of material, especially valuable material, relative to sources of water e.g. windows, pipes, toilets and basements should be considered. If a basement must be used, it is recommended not to use bottom shelves less than 6" above the floor. A Royal Commission on Historical Manuscripts standard[21] recommends that records should be housed in an archival strong room.

Suitability of Storage

Shelving should be as robust as feasible to reduce the risk of collapse in a disaster situation. It has been found that rolling stacks provide extra protection from water damage and these should left closed at night. Canopies also offer additional protection. Some non book material may be stored in metal cabinets. Storage for museum objects may need to be custom made. Maps, plans, posters and prints should be stored flat or, if too large, rolled and fitted with a protective cover. Separate photographs and negatives and store in acid free envelopes. Avoid covers or envelopes made from plastics other than mylar or melinex. Archive material which often consists of loose papers should be boxed and the boxes marked in water-resistant inks. Archive boxes should be acid free. Avoid tapes and glues, which come unstuck and metal paper clips which rust in wet conditions. Brass paper clips are preferred.

Standards for archival quality storage, including shelving, are contained in BS5454 : 2000 *Recommendations for the storage and exhibition of archival documents.*[32]. This standard is appropriate for the storage of other predominantly paper-based special collections material and contains recommendations for the storage of modern media (photographs and audio-visual material). Storage conditions should meet BS5454 : 2000 standards for environmental conditions wherever possible. Advice on storage, or archival quality stationery, should be sought from a professional archivist or conservator.

Preservation surrogates
In the case of special collections material or other documents of particular value to the institution, consideration should be given to the creation of preservation surrogates of unique items, preferably in microform, to be stored in multiple locations off-site.[33] Such work may also be undertaken as part of the library's digital strategy.

Exhibitions
The exhibition of material from an institution's collections can be a valuable way of attracting interest and raising the profile of the collections. However, as exhibition areas may be located at some distance from the storage and consultation area of such material, care should be taken to ensure the security of material when on display. This applies equally to exhibitions held within the institution and to those involving the loan of items to another institution. The National Preservation Office's *Guidance on exhibiting archive and library materials*[§] provides expert advice on this topic.

Fire Hazards

[§] http://www.bl.uk/services/npo/exhib.pdf

Reduce fire hazards by replacing old and worn-out equipment or furniture with those made from fire-resistant materials, as part of an ongoing replacement programme. Remove redundant and obsolete equipment and materials. Have wiring checked regularly. Fit smoke alarms and sprinkler systems. Sprinklers may damage part of a collection but may also prevent the destruction of the whole. Advances in recovery techniques mean restoration of wet material is accomplished more easily than fire damaged material. A fire brought under control quickly by a few sprinklers is likely to result in less wet material than a fire which has to be tackled by the fire service. If the library has a book drop the location of a smoke detector and sprinklers above the book drop may prevent the spread of a fire started by arson as happened recently in an American library[30]. Especially valuable and rare material may be protected by fire-proof doors in an area without windows. Gas-based fire suppression systems are also available and are ideal for libraries and archives. These systems work by suppressing oxygen in order to starve the fire and immediate evacuation of any area where they are fitted is absolutely essential when a fire is suspected or discovered.

Infestation

Regular checks should be made for signs of infestation. The identification of library pests has been made easier by a document produced by the European Commission on Preservation and Access. This web site shows examples of pests and of the tell-tale signs that they are present.

Training in handling and collection care

All library and archives staff should receive regular training in the importance of good handling as a means of collection care. Guidance should also be given to users, particularly where special collections material is concerned. Non-library staff who may be in the library building outside library opening hours (e.g. porters, security staff, cleaners, maintenance staff) should also receive training in collection care and disaster prevention and reaction.

Procedure Manuals

Avoid key information being stored in just one person's head! If major illness or a serious accident causes key staff to be absent for an extended period, others at a similar level should be able to step in. Wherever possible (i.e. where confidentiality will allow) procedures should be documented and stored in manuals. Manuals should be checked regularly for accuracy and currency, and updated where necessary. Any updates to the procedures manuals should be signed and dated. All holders and locations of manuals should be listed in the Disaster Control Plan. Consideration should be given to training staff on tasks they would not normally undertake. They will also need sufficient time to maintain their new skills.

IT

Given that there are so many variables consultation with the institution's IT professionals is recommended, before drawing up procedures. Depending on institutional policy and the extent of library responsibility for IT services consideration may be given to devising a separate IT disaster plan.

However, there are basic measures which should be taken. All software and data should be backed up regularly on industry-standard digital tape or other approved media (decisions on frequency should be taken after considering the nature of the data and the demands on the systems involved). Off-site storage for back ups is essential. For multi-site institutions other sites within the library service may suffice. For single site other storage will need to be found, which is secure and preferably not vulnerable to fire, flood etc. It is advisable to use media from a variety of sources to minimise the risk from manufacturing faults. Archived data should be checked periodically for readability and if necessary migrated to new media. The integrity of data files should be checked periodically.[24] Particularly crucial data may be stored using more than one type of software to reduce the risks from malfunction or viral attack.
Running anti virus software is the best defence against virus attack, but clean emergency start-up discs for each computer should also be available to reboot machines after virus attacks, should they occur.

Network security is a complex and technical subject and professional advice should be sought on implementing virus protection, installing access controls, securing menus and installing back up power supplies[31]. Depending on the nature of the data involved it may be necessary to consider the use of encryption and firewall computers.

All backup routines, storage locations and security procedures should be documented. Any updates to the procedures manuals should be signed and dated. All holders and locations of manuals should be listed in the Disaster Control Plan.

Preparedness

Written Plan

The creation of an institution-specific, written Disaster Control Plan must form the basis for the preparation phase of disaster management planning. The Library's plan must be compatible with other relevant plans elsewhere in the organisation. A designated person must be made responsible for its accuracy and currency, and a clear timetable for reviewing and updating the plan must be agreed upon. The plan should ideally be kept in a loose-leaf binder to allow for easy updating, and if a version is available via the Library's intranet, care should be taken that the electronic and hard copy versions remain in step. Any major revisions of the plan should result in it being reprinted in its entirety, to avoid confusion. Pages should be numbered and dated. Any updates to the procedures manuals should be signed and dated. The plan should be divided into four sections: prevention, preparedness, reaction and recovery. It should be clear, succinct, flexible and easy to understand, whilst also including all the information necessary to inform a speedy reaction in a disaster situation. Jargon should be avoided, so that the plan may be easily understood by other professionals such as fire officers. Flow charts may be used where they will aid understanding of the procedures to be followed. It may help to use appendices for charts, plans and other local information, to keep the plan succinct.

All members of the Disaster Reaction Teams, the Disaster Manager, Disaster Reaction Manager and the Disaster Recovery Manager should have two copies of the plan, one to be kept at work and one at home. Senior management and site managers may also need copies of the plan. Each site should have access to the plan, although some sections (such as the location of rare or valuable items or home phone numbers) may be kept out of general circulation. All holders and locations of the Disaster Control Plan should be listed.

For multi-site institutions the next step will be to decide whether to adopt an institution wide or a local response, how to store salvage supplies etc

Chain of Command

A clear chain of command must be established and followed in the event of a disaster. This may include the appointment and training of some or all of the following:

- Disaster Manager
- Library Director
- Disaster Reaction Manager
- Disaster Recovery Manager
- Press Officer
- Senior manager in the institution

Disaster Reaction Teams

Personnel available to be called on in a disaster situation must be identified and trained. The precise structure of the reaction teams will vary according to the needs and the resources of each institution

Health and Safety

A library disaster may well affect the working environment of staff, and their health and safety must be the primary concern. Health and Safety regulations cover working in a disaster area and must be followed. Advice may also be obtained from local emergency services attending the incident. Circumstances may dictate that staff not trained to deal with a disaster, (i.e. those staff not part of a Disaster Reaction Team) should be evacuated from the area and be found another place of work, should a disaster occur during working hours. The Disaster Control Plan should lay down the circumstances under which the library should be closed and the building evacuated along with local procedures for achieving this. It should be borne in mind that the Library management may not be in control of the whole building when drawing up evacuation procedures or consequent working arrangements. Consideration should be given to procedures for evacuating staff and students with disabilities in an emergency, especially those with mobility, sight or hearing impairments.

Training

A training programme must be devised, based around the Library's own Disaster Control Plan. This will encompass several levels of involvement in the disaster planning process. All staff should receive training, similar to that undertaken for Health and Safety procedures, covering reporting potential problems, raising the alarm, key personnel and the circumstances under which evacuation procedures would be implemented. It should be borne in mind that the Library management may not be in control of the whole building when drawing up evacuation procedures or consequent working arrangements. Once initial training has been completed, the training programme should become part of induction training for new staff.

Disaster Reaction Team members will obviously receive more detailed training covering the role of team members and its limits, when and where to seek advice and the work involved during a disaster scenario. These sessions should ideally contain a practical "hands-on" element and a detailed tour of the building.

Training for the managers who will have to co-ordinate the reaction and recovery in response to a disaster should include a simulated disaster (table-top exercise), to help them understand the processes involved. This will also help to reveal any weaknesses in the Library's Disaster Control Plan, in advance of any actual implementation of the plan. In addition, training must cover the skills necessary for managing staff under great stress, as staff who have not previously experienced a similar disaster may find it unexpectedly upsetting and/or exhausting.

Regular training should also take place on the procedures for the restoration of IT services in an emergency.

It should be noted that disasters which occur out of hours may well be discovered by non-library staff, such as security or maintenance staff. These staff should receive training based on the Procedures for Initial Action on Discovering a Disaster. They should also be made aware in advance of the need for prompt action in the event of all types of disaster

Insurance

As part of the preparation phase of disaster planning library staff should familiarise themselves with the insurance cover provided by their institution. If possible, talk with the insurers (via the finance department or other central administration as appropriate) to discover:

- The scope of the insurance.

- Whether the valuation of the library's collections and other contents is realistic. Special collections and other valuable/unique material may require separate insurance and it may sometimes be deemed advisable to insure for the cost of conservation, as opposed to the cost of replacement; specialist advice should be sought.

- Whether there is any limit on the value of single items covered.

- The level of spending the Disaster Reaction Manager will be able to authorise in the event of an emergency.

- Any extra insurance needed to cover stock in transit or temporary storage or extra opening hours or emergency accommodation for readers and staff.

- Any extra insurance needed to cover hired equipment.

- Any extra insurance needed to cover staff working out of hours and or in a disaster situation.

The insurance company should be contacted as soon as possible after a disaster is discovered. The plan should specify whether this is the responsibility of the Disaster Reaction Manager or whether the insurer should be alerted via the finance or other central department, in line with institutional policy. In the event of a major disaster the insurance company will appoint a loss adjuster to assess the institution's claim. The loss adjuster will usually offer advice and in some cases, will arrange for labour to help with very heavy work unsuitable for Disaster Reaction Team members. If necessary, extra labour may also be obtained via agencies for tasks such as data entry.

NB It will be necessary to prove loss in the event of an insurance claim using catalogues and inventories of equipment and furniture [3] Back-up copies of these should be kept at another location. This is especially important in the case of special collections material, which, by its nature, is often not catalogued online; back-up copies of any existing manual catalogues should be made and stored off-site.

Library Floor Plans

Floor plans of all areas covered by the Disaster Control Plan should be prepared and included in the plan. It may be useful to laminate copies so that they can be pulled out

of the Disaster Control Plan binder during a disaster and easily consulted by the emergency services or Disaster Reaction staff. The floor plans should show the locations of:

- Fire exits, fire extinguishers, smoke alarms, sprinkler systems (where present), assembly points.

- Air conditioning systems (where present).

- Electrical, water, sewerage, drainage and gas systems, highlighting fuse boxes, stop cocks and isolation valves.

- Salvage priorities and the location of the emergency equipment bins.

- First aid boxes.

To avoid plans becoming too "busy" several plans of the same area may be included, for example one for fire precautions and one for salvage priorities and the location of emergency equipment.

Salvage Priorities

In the event of a disaster there will be very little time in which to make decisions. It is therefore essential that priorities for the salvage and recovery of the library's collections are agreed and recorded before any event, and documented in the written Disaster Control Plan.

It is possible that it may be more cost effective to dispose of easily-replaced material, especially if it is badly damaged. It would be necessary to compare the value of the item, its uniqueness and its function within the library service with the unit cost of salvage, while also noting the requirements of the insurance company. This is especially true of some non-book material, such as microforms, where salvage is difficult, expensive and not very successful. Material with water-soluble ink will need to be salvaged immediately, if at all. Newspapers and cuttings also respond poorly to restoration and replacement, or replacement by surrogates, should be considered where possible. If necessary, restoration should be left until last when staff will have had most experience of dealing with damaged material.

Much special collections material is likely to be both unique and valuable and therefore will merit salvage even when severely damaged, despite the difficulties and expense involved.

Once the stock worth salvaging has been identified, it should be prioritised according to its value, uniqueness and function within the library service. The fragility of individual items may also be considered. Priorities may be set for the library or archive as a whole and also for individual departments or areas, which may save time in the event of a localised problem. Priorities will have to be implemented flexibly, where access to the affected area is restricted or where the extent of the damage varies. Remember to consider unique administration files, e.g. personnel/ financial and Inter-Library Loans records as well as collections and their ancillary files. If possible mark the prioritised material, but do not rely entirely on colour coding or marking, as light levels during a disaster may be very low. The use of fluorescent

shelf markers, which glow in low light, enabling priority items to be identified, can aid quick retrieval. Details and locations of items to be treated as priorities should be recorded in the Disaster Control Plan.

IT Preparedness

Disaster preparedness in relation to IT services in the Library should form part of the Library's written Disaster Control Plan.

IT services are at risk from "disasters" such as fire and flood but are also particularly vulnerable to theft, hardware/software failure, security breach/hacking and virus attacks.

The nature of Library automation means that a loss of IT functionality can seriously inhibit the Library's ability to provide even the most basic service to users and suppliers; and will have a detrimental effect on staff's ability in carrying out their day to day duties.

<u>Responsibilities</u>

The extent of the Library's role in IT disaster preparedness depends on the level of responsibility it has for IT provision. This will depend on the Institution's departmental structure. It is important therefore to establish levels of responsibility; in essence who is responsible for what and who has to be contacted in the event of a disaster.

Some examples of that need to be clarified are:

- Library computerised management system

- The server the management system runs on

- The server operating system software including security, virus protection.

- Periphery library systems eg ILL, intranet, online exam papers

- Network, email and Internet access, including security, virus protection.

- CD-ROM network and associated server and operating system.

- Other general PC support

- Audio-visual equipment

- Any other IT services offered in the Library.

The Disaster Manager should identify key staff to and agree levels of responsibility, bearing in mind they may not necessarily be library staff. It should include the following:

- The designated Disaster Manager

- Systems librarian or equivalent

- Appropriate staff from IT Department

All designated staff should have a copy of IT disaster plan; a copy should also be available in the server room, or the room where the Library server is located. Out of hours contact details should also be known. It is important that contact is maintained with designated staff and informing them of changes, such as in key personnel, and in the acquisition or proposed acquisition of new IT equipment.

General preparedness

Servers should be kept in a dedicated server room which provides a safe environment including security from theft, and temperature control. An Uninterrupted Power Supply (UPS) system should be installed so that, in the event of an unexpected power cut, servers will be shut down automatically or will be kept running for a period of time that would allow staff to conduct a controlled shutdown (or for power to be restored). Members of the Library Disaster team should know how to safely shut down Library IT systems should advanced warning of a power cut be given. Servers and computers should be protected by the latest anti-virus software and security patches.

Back-ups should be run on a regular basis, preferably daily. Use a separate tape for each weekday. Clearly label the contents of each tape and the date it was created. The latest back-up tape should be stored offsite. Ensure the tapes are stored in a stable environment - away from damp, dust, high temperature and humidity. Keep tape drives clean, for example, run a DAT cleaning tape regularly.Replace the tapes on a regular basis as they degrade through natural wear and tear.

It may be worth investing in an additional server to copy data and mirror discs. Consider options to back up the OPAC - e.g. membership of COPAC, or card catalogue. Many manuals are now online and may not be available during a disaster, so print out hardcopies of important sections.

Staff should be aware of the location of:
- IT equipment, servers.

- Fire exits, fire extinguishers, smoke alarms, sprinkler systems (where present), assembly points.

- Air conditioning systems (where present).

- Electrical, water, sewerage, drainage and gas systems, highlighting fuse boxes, stop cocks and isolation valves.

- Salvage priorities and the location of the emergency equipment bins.

- First aid boxes.

Maintenance contracts

All IT components should have appropriate support, servicing and maintenance contracts. Keep a list of contractors with contact details including emergency numbers/out of hours support. Make sure it is clear which vendor is responsible for what and on which circumstances they should be called out.
Some examples:

- Library system vendor

- Server hardware vendor

- CD-ROM vendor

If support is required, have the work done on site, so that regular monitoring of the quality of work is possible.

Identify data recovery firms - if need be, contact them:

- to ensure that the equipment you use is compatible with the types of systems they recover.

- to find out how much a typical recovery costs;

- to advise on what precautions should be observed to ensure highest possible chance of successful recovery.

Most data can be recovered but costs and time factor are considerations to weigh against doing it.

Inventory

Compile a current list of all computer and IT equipment held in the Library, and any equipment that is used solely by the library but is stored offsite. The inventory should list the make, model and serial number of the equipment; the location of the equipment and the date purchased and cost when purchased. This can be used to form basis of an insurance claim.

IT Priorities

It should be clear which IT functions should take priority when restoring IT services.

Service Continuity

The Library system should have an offline circulation module that allows the circulation desk to function during a library systems or network failure. Staff should be fully trained in the module and the offline system should be tested on a regular basis.
If the Library system does not have an offline module, prepare manual back-up procedures, and draw up forms which allow staff to record transactions. Make sure the forms are available at all times.

Post and new stock will almost always continue to arrive. Acquisitions and Serial check-ins may have to be done manually, or priority may need to be given to provide staff with sufficient IT facilities to enable them to cope with deliveries.

If the disaster is confined to the library only then have arrangements with IT to provide back-up computers if required.

Cooperative systems

Plans should be drawn up to ensure that alternative IT facilities are made available either elsewhere within a multi-site institution or through co-operative agreements between libraries. Such mutual support agreements should allow students access to IT facilities should their institution be affected by a major disaster.

Insurance

The nominated staff should familiarise themselves with the insurance cover provided by their institution to ensure that all IT equipment is covered. It should be ascertained whether there is any limit on the value of single items covered.
The plan should specify whether this is the responsibility of the Disaster Reaction Manager or whether it should be done through the Finance Department, in line with institutional policy.

Emergency Equipment

A rapid response will generally be called for in a disaster, especially where the disaster has resulted in damage to the collections. Having the appropriate emergency equipment available can contain the disaster and prevent damage to collections, and ensure that the Disaster Reaction Team can begin salvage work at the earliest moment. Decide what emergency equipment to hold internally, what can be obtained from other departments within the institution and what can be obtained (quickly) from outside companies. The supplies will need to be checked regularly and any faulty equipment replaced. The following factors should be considered when making decisions relating to emergency equipment:

- The size of the library or institution and the available budget.

- The nature of the Library's collections.

- How much of the collections it has been decided to attempt to salvage.

- Whether the institution has a disaster recovery contract with an organisation, which would supply heavy equipment on demand.

- Whether the institution has the space to store large items.

- Whether the institution's insurers require the equipment to be held onsite.

- Whether the Library's staff are able to use the equipment or whether it requires specialist training.

A list of the Emergency Equipment kept by the institution, its precise location and a list of firms which can supply additional equipment should be placed in the written Disaster Control Plan. It is generally recommended that the supplies be kept in a

wheeled box or wheelie bin. Thought should be given to the location of such supplies, e.g. they should be stored close at hand but in low-risk areas. Reaction times during the Colorado State University Libraries flood were slowed by the loss of the preservation disaster supply cabinet which had been stored in the basement.[28] The location of the emergency supplies should be noted in the Disaster Control Plan and clearly marked on floor plans.

Emergency equipment must be included in equipment maintenance schedules and those responsible should sign to state that the relevant checks and maintenance routines have been carried out, and the optimum period for review

Suppliers of Emergency Equipment and Services

Equipment and supplies not held locally may still be needed quickly, as may expert advice. Therefore initial contact with suppliers and specialist services should be made in advance and contracts negotiated where appropriate. Not all the categories covered in the template will be needed by every library.

If using a contractor for any part of the work, make sure the contract is clear that control of the operation is in the hands of the Disaster Managers not the contractor. If appropriate have the work done on site, so that regular monitoring of the quality of work is possible.

Emergency Ordering and Invoicing Procedures

During a disaster situation it will not be possible to handle ordering and invoicing in the normal way. Advise finance departments in advance of the sheer scale of spending and number of invoices, which will be necessary during the first and crucial 48 hours after the disaster. Some cash transactions may be necessary. Normal decision making procedures will need to be streamlined, as speed of response will be critical, although it is possible that tendering will still be required. A system for dealing with special arrangements and the extra workload should be put into place and the procedures noted in the written Disaster Control Plan, along with a named contact in the Finance Department.

Accommodation for Salvage Operations

Identify possible alternative accommodation for salvage operations, assuming that some or all of the library environment is too badly affected by the disaster for anything other than initial packing and sorting to be undertaken there. It will be necessary to identify the type of accommodation, the probable floor loading, and proportion of public area to salvage area. Obviously this will be easier for a multi-site institution as services can be provided at other sites. Assuming that they are not already in use, examination tables may be used in the salvage area to provide drying surfaces or work tables.

During almost any disaster postal deliveries and new stock will continue to arrive. Priority may therefore need to be given to providing technical and bibliographical

staff with sufficient facilities to enable them to cope with deliveries. They will also then be able to begin identifying items lost for insurance claims using the catalogue.

Consideration should be given in advance to the necessary security arrangements to protect staff, readers, the affected building and collection material during the reaction and recovery phases.

Service Continuity

A disaster which damages the library's collections will clearly adversely affect the service provided by the library. However, there are other disasters which may interrupt the continuity of service provided by the library. Theft or vandalism may cause an IT failure, for example. Plans should be drawn up to ensure that alternative IT facilities or study spaces can be made available, perhaps elsewhere within a multi-site institution or through co-operative agreements on a local or regional basis.

Reaction

Procedures for Initial Action on Discovering a Disaster

These will vary according to local conditions, but should include procedures for both during and outside opening hours, alerting the Library's chain of command, alerting other institution departments (e.g. Security), how to contact emergency services and the circumstances under which the building should be evacuated. The responsibilities and duties of staff members should be made clear. It should be noted that disasters which occur out of hours may well be discovered by non library staff, such as security, cleaning or maintenance staff. These staff should have access to the Procedures for Initial Action on Discovering a Disaster. They should also have been made aware in advance of the need for prompt action in the event of all types of disaster.

Contact Details

Include contact details of the Disaster Managers and also the Press Officer. The Disaster Reaction Manager will call out the Disaster Reaction Teams if necessary and their contact details should be included. She/he may also contact other internal departments and the appropriate personnel and contacts should be listed.

Initial Assessment of the Disaster Situation

On arrival, the Disaster Reaction Manager will need to establish contact with those in control of the site, whether from within the institution or from the emergency services. As soon as it is safe the extent of the damage must be assessed and the scale of response decided. If necessary other personnel from the list of contact details should be summoned and briefed on their arrival at the site.

Careful briefing of Disaster Reaction Teams is essential. Staff who have not previously experienced a similar disaster may find it unexpectedly upsetting and/or exhausting. Experience has shown that regular breaks are absolutely essential with a maximum work period of one and a half hours between breaks. Refreshments should be made available as close as possible to the work areas. The Disaster Managers will need to be on the look out for signs of shock or emotional problems amongst staff and react to them immediately by giving extra breaks or sending affected staff home. In some cases counselling may be provided by emergency services[22] on the first day but after that it will be up to management to put in place measures to help staff cope with the aftermath of a disaster.

It is essential to establish a Control Point early on to act as clearing house for communications between the various teams who may be widely dispersed; for example suitable facilities for drying material or for the bibliographic team may be on another site. The Control Point staff should also monitor the rotation of Disaster Reaction Teams, their location within the disaster area and the work in progress. Depending on the scale of the disaster the Disaster Recovery Manager will need to implement the contingency plans laid to allow the library to maintain some level of

service during the disaster. In the event of a disaster affecting IT, backups will need to be obtained from their safe storage location and procedures implemented to restore the service.

Guidelines for Disaster Reaction Team Members

It may be useful to include a short laminated pullout section in the Disaster Control Plan to cover guidelines for the Disaster Reaction Teams. These could then be consulted easily before leaving home and during the salvage operation.

Master Copy of Disaster Report Form

Keep master copies of the Disaster Report Form in the Reaction section of the Disaster Control Plan. Stocks of blank forms, and blank paper in various colours, should be kept with the emergency equipment.

Procedures for Salvaging Library and Archive Materials

NB The procedures for salvage contained in the template assume that all types of material is to be salvaged, they will need to be modified according to institute policy; see Preparedness - Salvage Priorities.

Water damage
Water damage is the most common form of damage to library and archive materials and a side effect of fire based disasters. However, improved technology and awareness by the fire service has greatly reduced the amount of water damage, which follows a fire. It is essential to work quickly as mould growth can be expected on the wet stock within 48 hours. In hot humid weather mould will appear in less than 24 hours. Refer to BS5454 : 2000 for safe temperature and humidity ranges.

Depending on institutional salvage policy, decisions will need to be made as to how to dry the wet material. Specialist firms exist, which will dry material using the techniques listed:

- Air-drying of damp books can be successfully undertaken in house, providing that there is sufficient space and staffing available.

- Dehumidifiers can be used to speed the process of air-drying. The equipment allows the final water content of the materials to be carefully controlled.

- Freezing books and records begins the drying process and damp books will dry completely if left in a freezer for several weeks. The process will be speeded up if the books are spread out on racks. This process results in some distortion of books.

- Vacuum drying involves placing books in a chamber with a heat source and then drawing a vacuum. It often produces distortion of books and is totally unsuitable for coated paper. It is also relatively expensive.

- Freeze drying takes place at temperatures below 0 degrees. A heat source is introduced and a vacuum is pulled. Ice crystals in the books vaporise without melting (sublimation) thus reducing the risk of distortion. This has proved a useful technique but is relatively expensive. It is generally recommended for rare and unique material, but is not suitable for vellum or parchment or documents with seals. It has the added advantage that mud, dirt and soot are lifted to the surface making cleaning easier.

Non book materials including archive material are likely to need specialist treatment. Where serious damage has occurred to archive material deemed worthy of rescue, [see Preparedness - Salvage Priorities] the use of specialist firms during salvage is likely to be essential. The services of a conservator on site would be very useful during any disaster and at a minimum a specialist should be contacted for advice.

Fire damage
Unlike single sheets books do not burn easily, since there is little oxygen between the pages of a book. Most damage is caused by smoke contamination, which can be cleaned using chemical sponges. There are specialist firms which will undertake this work, but ordinary industrial cleaners should not be used. The sooner cleaning is started the more successful it will be; so speed is of the essence. It is claimed to be extremely cost effective at "an eighteenth of the cost of true replacement"[7] i.e. including cataloguing and processing costs. It should be noted, however that the cleaning process has been known to remove stamped labels from the spines of volumes bound in buckram.[16] Re-labelling or rebinding these volumes adds to the expense of the salvage operation. The material may also need to be treated to remove the odour of soot and smoke, although experience at the Dalhousie fire[13] showed that the well ventilated conditions provided to air dry the books much reduced the smell without further treatment.

Non book material is much harder to clean and may need to be replaced. This will not be an option for unique archive material and may justify efforts at salvage depending on institutionally set salvage procedures. [see Preparedness-Salvage Procedures]. This will necessitate the use of specialist firms and is likely to be expensive.

Mould/Pest Infestation
Treating any form of infestation is a specialist job, as it involves the application of chemicals. Specialist advice should be sought after isolating the area.

IT

In the event of the building having been evacuated, or a disaster occurring out of hours, the library system may not have been shut down properly. Procedures for the restoration of the computer should be included in the written plan, and training for Disaster staff provided beforehand. Where hardware has become wet or been damaged by fire the damage will need to be assessed and a report prepared for insurance purposes. It may be useful to seek expert advice to help assess damage to hardware. Damaged hardware should be removed from public access as soon as possible and quarantined until it can be assessed.

Bombs

Any member of staff could find a suspect package or answer the telephone and receive a bomb threat. It is therefore important to have procedures and training in place before the event. Many institutions will have procedures in place and libraries should consult the relevant department and seek expert advice. In the event of damage resulting from an explosion, the Disaster Control Plan should be implemented in the normal way. As with any disaster, the safety of library personnel is paramount and the disaster area should not be entered until it is declared safe to do so by the emergency services.

<u>Recovery</u>

Disaster Recovery Manager Functions

Experience after the Norwich fire[2] has shown that initial concern and sympathy following a disaster rapidly wears off if the Library continues to be out of action for any length of time. Therefore the Disaster Recovery Manager must deal with the long-term effects of the disaster whilst simultaneously maintaining an acceptable level of service to users. Regular progress reports will help retain the support of users and senior management. The Disaster Recovery Manager should continue to keep the Press Officer informed as long as the media remain interested in the story.

If staff levels permit it is best to have two separate teams; one to deal with recovery and the other with service continuity. It is possible, depending on the scale of the disaster, that both teams will for a time be operating out of temporary accommodation. This will be a difficult time for staff, particularly if the recovery period is a protracted one. Staff must be kept busy, motivated and informed, if their morale is to be maintained beyond the immediate recovery period.

Service Continuity

Priorities for the continued provision of service must be set locally, but will include, for example:

- Post receipt, processing invoices and fetching undamaged stock from accessible areas or from storage. For some parts of the collections, e.g. the Special Collections, a retrieval service may not be appropriate and it may be necessary to suspend consultation facilities while the collections remain in offsite secure storage, or to arrange for consultation to take place in the library of another institution.

- New stock should be made available as soon as possible utilising temporary shelving if necessary.

- Access to audio visual materials should be restored one format at a time, which should allow for the equipment bought to be of reasonable quality.

- If the Quick Reference collection has been affected, borrow as much as possible from other libraries who have duplicates. Many enquiries can be satisfied from a basic collection including a multi-volume encyclopaedia, a dictionary, an atlas and an almanac, or from validated internet resources and gateways.

- If the IT service is unaffected use electronic sources to provide a reference service.

Conservation of Stock

Depending on the nature of the disaster and the salvage policy of the library, recovery will start with the conservation of damaged stock. Once stabilised the stock will need to be shelved away from the disaster area so as to reduce the likelihood of mould growth. Water-damaged stock must be checked regularly for any signs of mould for the next twelve months and preferably should not be re-shelved in its original location for 6 months after the disaster. Freeze dried stock should be laid aside in a room at normal levels of temperature and relative humidity to allow it to reacclimatize. It should be handled with caution, as its unusually low internal moisture content will make it brittle. Where stock is in need of interventive conservation treatment or repair, library staff should liaise closely with the selected conservation firm(s) to identify priorities for treatments, the benefits of batching similar types of work together and the likely timescales for treatment. A comprehensive conservation programme should be drawn up.

Restoration of the Disaster Area

Once all the damaged stock has been removed from the site of the disaster the area must be thoroughly cleaned and disinfected to discourage mould growth, where water damage has occurred. This work can be undertaken by commercial industrial cleaners and should include all surfaces and shelving in the affected area. Take temperature and relative humidity readings until they stabilise within normal limits as specified in BS5454 : 2000. The area should then be monitored for 6 months to ensure that there is no sign of mould growth before any material is shelved there.

If a major re-fit of the area is required (as the result of a fire or flood for example), this may be an opportunity to redesign and upgrade an area to make it more user friendly or disaster proof, without having as many constraints as previously. At this time the outcomes of previous risk management exercises should be reviewed for implementation. This may also represent an opportunity to re-think holdings and equipment policies. Do not forget to plan for the replacement of telephones, telephone points and data points[7], plus any other equipment destroyed in the disaster, and for the servicing of this equipment.

I.T.

Recovery from an IT-based disaster may be a matter of restoring the system from backups. However where theft or vandalism or other damage to hardware has occurred new hardware may need to be ordered and assembled before backups can be used. Ordering of new hardware may be delayed by negotiations with the institution's insurers. Local procedures for service continuity will then have to be implemented for the intervening period. It should be noted that in one case, equipment which appeared to be undamaged failed to work a few weeks later as rust patches appeared and some equipment which continued to function, did not do so as well as it had before the disaster.[31]

Insurance Claims

Lists of material, equipment and furniture damaged in the disaster will need to be collated and insurance claims prepared. Order replacement items and equipment as soon as local circumstances allow (e.g. insurance payments). Inventories will have to be updated to reflect losses and new purchases. In the case of Special Collections material expert advice should be sought as to the replacement or conservation value of lost, destroyed or damaged stock. The major antiquarian booksellers and auction houses can provide advice on the former, as can the Antiquarian Booksellers Association, while binding and conservation firms should be consulted on the latter.

Counselling

The recovery phase of a disaster can take much longer than initially anticipated and the impact on staff morale can be long lasting. In some cases, staff counselling may be appropriate. [Reference 22]

Learning from the Disaster, and Revision of the Disaster Control Plan

Every disaster should lead to a re-examination of a library's policies and procedures to make sure that lessons are learned and that the likelihood of the same disaster occurring again is kept to a minimum.

Each time the Disaster Control Plan is implemented, the procedures followed should be analysed and a report written, which assesses the success of the operation and makes recommendations for any necessary changes to the plan. Fresh risk assessment exercises should also be undertaken for relevant areas and activities. All updates should be signed and dated by those responsible.

Sometimes a library can turn a disaster to its advantage; a fire or flood caused by poor quality accommodation can result in a library securing funds for a new and superior building. Public sympathy may be aroused by the loss of collections of cultural significance or local value; good collaboration between the library and the parent institution's Press Office and / or Development Office may result in helpful press coverage and the launch of a successful fund-raising campaign. Skilful cultivation of the library's existing friends and supporters, within the institution and further afield, can bring long-term benefits.

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