

Salvage



The Preservation Advisory Centre is supported by:



The Pilgrim Trust
The Marsh Christian Trust
and the John Paul Getty Jnr Charitable Trust

ISBN 978 0 7123 0949 3

Author Emma Dadson, Harwell Document Restoration Services

Design The British Library Design Office

Cover image and drawing on page 7 courtesy of Harwell Document Restoration Services

November 2012

Salvaging library and archive collections

- 1 Introduction
- 2 Bringing the situation under control
- 3 Health and safety
- 4 Preparing the salvage operation
- 5 Moving damaged items
- 6 Drying and stabilisation
- 7 When not to air-dry
- 8 Working out a salvage strategy
- 9 Dealing with the building
- 10 Smoke and fire damage
- 11 Conclusion

1 Introduction

It is good practice for organisations to have an effective emergency plan in place, and to regularly train staff on its implementation¹. This booklet provides guidance on how library and archive collections affected by water or fire damage can be salvaged. It covers the materials commonly found in library and archive collections, such as books, manuscripts, maps, plans, photographs, microfilm, CDs and DVDs. Most attention is given to the techniques applicable to dealing with water damage, as escapes of water and flooding incidents are much more common than fires².

When water affects library and archive collections a prompt reaction is essential to prevent the water damage triggering secondary damage, most particularly mould

¹ For more information refer to the emergency planning pages on the Preservation Advisory Centre website www.bl.uk/blpac/disaster.html

² Almost a third of the archives, libraries and museums that responded to the *Safeguarding Heritage at Risk Study* survey, 2006 had experienced a 'disaster' in the previous five years; of these, water related disasters were by far the most common type of incident (68%), and the next most common was fire (11%).

growth. If the damaged items can be salvaged quickly, i.e. moved, then dried or stabilised within 72 hours of the incident, then any secondary damage should be limited. However, the longer the salvage process takes, the worse the damage will become. The complexities of salvage, the number of items requiring conservation treatment and the cost will all rise as the timescales increase. Therefore, the primary objective of the salvage operation should be to deal with as much material as possible within 72 hours of the incident. This objective is much more difficult to achieve in a major incident given the scale of damage and possible safety issues, and organisations will need to be flexible in their approach.

2 Bringing the situation under control

The salvage operation should only begin once the situation has been brought fully under control. Failure to do this can lead to an escalation in the extent of water penetration and the number of damaged items, as well as an escalation in risks to personnel. Before attending to the damaged collections, it is recommended that the following activities are conducted:

- The area/s affected should be cleared of staff and users and access restricted.
- The emergency plan should be implemented and key staff contacted.
- Facilities staff should be contacted to address the source of the water ingress or the leak should be identified and isolated.
- Electricity in the affected area should be made safe and a risk assessment of the salvage operation conducted.
- A thorough building check should be carried out to identify all areas of damage, especially those at and below ground level, as water may have travelled laterally and vertically within the building.
- Emergency equipment should be sourced and unaffected 'at risk' collections protected with polythene sheeting.
- Photographs should be taken, insurers notified and surface water removed from the affected area.

These processes will ensure that the salvage operation can proceed with the amount of damage and extent of water penetration minimised.

3 Health and safety

The safety of people during the salvage operation is paramount. A risk assessment of the salvage operation must be conducted to identify and minimise the risks that salvage teams face. Very few salvage situations involving water are so hazardous that it is impossible to access collection areas. However, it is important to ensure that precautions are taken. Emergency plans should contain risk assessment forms that can be quickly completed for salvage situations.

The building must be accessible and safe to work in. Electricity must be isolated if it has come into contact with the water, but sufficient light needs to be provided for the salvage operation. Water should be removed from the area to ensure that slip hazards are mitigated. Any fallen objects need to be cleared from the floor so that aisles are clear. Salvage personnel should work in pairs or small teams for safety and efficiency.

The source of the water may be foul or the water may have become contaminated on its way through the building, so personal protective equipment must be worn. At the damage site, this may include protective safety footwear, a splash-resistant protective overall, hi-vis vest, protective gloves, goggles and a facemask. A headlamp may also be helpful. A safety helmet may be required if there is a risk of debris falling from above (although in these circumstances it is recommended that the organisation's own health and safety officer, or a contractor appointed by its insurers, is contacted to provide the risk assessment). When salvaged items are being assessed or treated in the assessment area the minimum requirements are an apron and surgical gloves. The risk of mould growth should be assessed and monitored, and from 48 hours after the incident FFP3 facemasks should be worn as a precaution against mould spores³. Given the hazards of disaster recovery, certain vulnerable groups should not be involved in salvage, including those with asthma and other respiratory conditions, suppressed immune systems, the elderly and pregnant. Consideration should also be given to the manual handling involved in salvage, and those with a history of bad backs should not be involved in handling and lifting.

³ Refer to the Preservation Advisory Centre booklet, *Mould outbreaks in library and archive collections* www.bl.uk/blpac/pdf/mould.pdf

4 Preparing the salvage operation

Once the situation is under control and the extent of damage is fixed, the salvage operation can begin. Almost all water damaged items within library and archive collections can be successfully salvaged, although the complexity of the process increases the worse the secondary damage becomes. Before moving items, the extent of the damage should be roughly calculated, e.g. linear metres of material or numbers of shelves affected. This is important for various reasons:

- To plan the space, personnel and other resources (such as crates) needed to move the material.
- To establish the likely timeframe for the completion of salvage.
- To determine the rate of salvage progress when salvage work starts.

The affected items will need to be moved to a separate area for further assessment and drying out. The assessment area should be as close as possible to the damage site, preferably on the same level or accessible via lifts and trolleys to reduce the manual handling aspect of the salvage process. The route to the assessment area should be worked out before starting to move any damaged items. Ideally, temperature and relative humidity should be controllable in the assessment area, but if this is not possible, a cool room should be selected. The ability to secure the room should also be a consideration. The room should be kitted out with as many tables as possible to maximise the drying space. Carpeted or wooden floors should be protected with medium density polythene, taped down for safety reasons. Fans and dehumidifiers should also be sourced. You may also need the following equipment:

- Archival blotting paper (as a base for drying)
- Unprinted newsprint or paper towels (for interleaving endpapers)
- Scissors (for cutting paper to size)
- Polyester film – Melinex® or Mylar® (or acetates if you do not have polyester) to support single leaf items
- Coated paper, e.g. silicone paper (for interleaving clay-coated paper)
- String or tape (for creating drying lines)
- Brass or plastic paper clips (for hanging items)
- Assorted sizes of polythene bags (for isolating items)
- Clipboard, camera and documentation materials.

5 Moving damaged items

Items that have fallen from the shelf onto the floor must be moved first to avoid them being trodden upon. Individual wet documents are at risk of being torn if picked up from the floor by hand, so where possible a sheet of polyester should be pressed to the item so that the document is fully supported as it is lifted and transferred to a crate.

When items become wet on shelves, the absorption of water may cause the items to swell, with the result that contents become wedged on the shelf. If at all possible, remove books by placing a hand over the top and pushing one book, or two/three books from behind, rather than pulling on the spines. Boxed items should be supported underneath as they are removed from the shelf, to avoid the contents falling through the bottom. All shelves that require removal should be cleared from the bottom up provided that the shelving is fixed in place e.g. screwed to the wall or secured on roller racking. The reason for this is that puddles and pockets of water will be displaced onto the shelves beneath as the contents of shelves are removed. If the shelves are cleared from the bottom up, the excess water will fall onto empty shelves, rather than further wetting full shelves underneath. If shelving is not fixed or there is any risk of instability, remove materials from the top down. All areas should be checked thoroughly as water may have seeped around the backs of shelves. This may not be obvious unless items are removed from the shelf to allow for a visual inspection.

All items should be transferred either to plastic crates or to boxes for moving, so that direct handling is kept to a minimum. Boxed items should be kept in their original boxes for transfer to the assessment area, but the boxes should be placed into crates if they are wet. Items should be kept flat and a small hole made in the bottom of the box if necessary to let water out. Usually, books can be packed flat into crates, alternating the position of the spine row by row. If there are concerns about the weight of the text block, or the bindings swelling, or if the pages are coated, books can be packed vertically (spine down) in the crates with a layer of bubble wrap or foam at the bottom of the crate. Drawers of maps, plans or microfiche may be easier to move by removing the entire drawer from the cabinet. This will also reduce handling of individual items. Prior to crating, any liquid water

should be drained away as this will only slow down the drying process in the assessment area.

At this stage, there is no need to place any items into polythene bags unless dye leaching is observed and you wish to isolate the items, or if the surface of the binding appears slimy or tacky and you are concerned that it might stick to adjacent items. Items that are falling apart (for example, those with detaching spines or boards) can be placed in bags immediately to keep everything together, or placed into crates on their own. Items that are already mouldy should be isolated by bagging.

Prior to removing any item, ensure that items are traceable and identifiable and implement a documentation system.

6 Drying and stabilisation

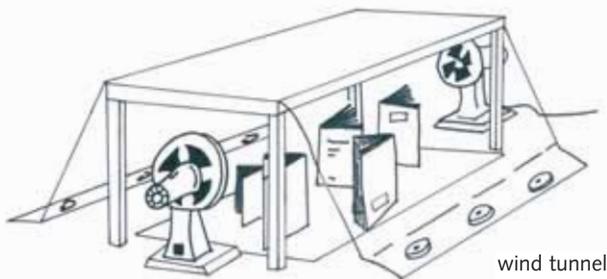
In the assessment area, items should be removed from crates, examined and divided into the following categories:

- Dry
- Wet – suitable for air-drying
- Wet – requires stabilisation (freezing/keeping wet)
- Wet – requires professional assessment (e.g. adhesions, significant staining, soiling)

Some items will be found to be dry even though the enclosures (sleeves or boxes) are wet. These items must be removed from their enclosures immediately to avert the risk of any water penetration. Most archival quality boxes will keep most of the water out except for the bottommost items in the box. The longer dry documents are left in a wet box, the more seepage and wicking of moisture there will be. Items should be removed from the original box immediately, overturned and placed in a new temporary container, with the original box information (identification number/description) placed in a polypocket and kept with the contents. The wet documents will then dry (drying time can be reduced by removing the documents and drying them separately).

All library and archival materials can be successfully air-dried, though some degree of distortion may occur. Water evaporation (and therefore the rate of drying) can

be increased by raising the temperature or increasing the velocity of air movement. As the application of heat is not appropriate for drying library and archival materials, only air movement should be used to increase the drying rate. The fastest way to air-dry material is to create a wind tunnel. This can be made by placing polythene sheeting over a table and taping it down at the bottom. Blotting paper is placed in the space underneath the tables onto which the wet items can be positioned. A fan at either end of the wind tunnel on oscillating mode increases the air movement and thus the rate of drying. Tables can be joined together to create a very long wind tunnel if fans or power points are in short supply. (String or tape can also be hung around the legs of tables which can be used to dry photographic material or pamphlets). This technique is useful for drying modern hardbound books but is not suitable for all materials.



The alternative technique is to lay material out to dry on blotting paper on tables and on the floor. Fans can be used to increase the air circulation in the room, but they should not be directed at the material. Dehumidifiers should be introduced on a low setting to remove the moisture from the air and maintain the rate of drying. This process can be used for softbound material, and flat material that cannot be hung and needs to be laid out flat.

Bound material

In order to increase the rate of evaporation, the surface area should be maximised as much as possible without physically damaging the items. Usually this means fanning open bound volumes to approximately 60-90°(although some bindings may resist being fanned and should not be forced). Dust jackets should be removed and dried separately. Unprinted newsprint can be cut to size and placed inside the endpapers to absorb more water (these should be changed regularly). Interleaving within the

text block can be attempted, but this may be very time consuming and can also result in the volume drying in a v-shape. Books should be placed wet end down on the blotting paper to begin with and moved regularly when the blotter is saturated so that water will seep out quickly. When liquid moisture stops moving into the blotting paper, the books can be turned the other way up, so that they are wet side up and continue to dry in this way. The blotting paper should be replaced as necessary.

Certain types of material, such as bound volumes with clay coated paper (typically art books and photograph albums) have a high risk of pages sticking together as they dry. These items should be placed on blotter to dry, and if pages cannot be kept separate by being dried directly by a fan, each page should be interleaved with silicone release paper. This is a very time-consuming process and if the quantity is large, it may be easier to freeze the items immediately, stacking them vertically (spine down) in crates, and treating through vacuum drying or individual thawing and treatment at a later stage.

Softbound materials usually absorb the most water in a flood. Attempts can be made to fan them open, but this may cause physical damage because the structure is not as strong as in hardbound items. If pages do not easily splay, it is usually an indication that the item is so wet that its rate of drying will be slower than the rate of mould growth, and these items may benefit from stabilisation (freezing) and professional drying treatment. Wet newsprint is particularly difficult to handle and dry. Fanning the pages of very large books or material with thick text blocks may cause physical damage to the binding. These materials should either be treated by a conservator immediately or passed for freezing and then treated professionally.

Photographic prints, negatives and microfiche

Photographic prints and microfiche can either be hung to dry or laid flat on blotting paper, image side up. Drying flat may result in some water staining on the image whilst hanging may result in crimping at the very edges of the image. Usually hanging the images to dry is the best option, but planar distortion is common regardless of the method chosen. The environment should be kept clean and dust free because photographic surfaces are particularly vulnerable when wet. Certain photographic formats may require specialist drying and if you have any concerns you should refer them to a conservator. If you are confident which photographic format you are working with, partially wet items may benefit from being rinsed in

cold clean water before drying so that the image is fully wet. Photographs that are stuck together can be placed in shallow trays for 10 minutes and attempts at separation made whilst still wet. Again, do not attempt this if you do not know which photographic processes are involved⁴.

Film and tape

Often water does not penetrate extensively inside the reel because the tape is tightly wound. If water penetration has occurred, film should be rolled off and laid flat to dry on blotter. Rinsing in distilled water prior to unreeling may be beneficial if the water was dirty or contaminated⁵.

Documents and parchment

Parchment and paper documents should be laid flat, face up on blotting paper to dry. For parchment, blotter or bondina[®] can be placed over the surface and the edges weighted down. Pendant seals should be supported. Paper documents can be sandwiched between blotting paper up to ten high in order to maximise the footprint of the drying area. Items are usually easier to dry if any fixings are removed (staples, ties etc). Fixings may also corrode or degrade as a result of the water damage. It is advisable to consult with a curator/archivist before fixings are removed.

Maps and plans

Maps and plans can be treated in a similar way to documents. Rolled material should be gradually unrolled and weighted to increase the drying rate. Care should be taken when lifting large horizontally stored maps due to the risk of tearing. Polyester film may be used as a support when handling wet items.

Optical discs (CDs/DVDs) and glass plate negatives

Ideally these will be dried at an incline (resting on something so there is an air flow underneath as well as above the item). String can be fed through the centre of CDs/DVDs and they can be spaced apart and hung to dry⁵.

⁴ Refer to *A Consumer guide for the recovery of water-damaged traditional and digital prints*, Rochester: Image Permanence Institute, 2007

https://www.imagepermanenceinstitute.org/webfm_send/314

⁵ Refer to *Disaster recovery of modern information carriers: compact discs, magnetic tapes, and magnetic disks*, Ottawa: Canadian Conservation Institute, 2002

7 When not to air-dry

Whilst everything within a library or archival collection can be air-dried, the process has significant limitations. It can take up a large amount of space and salvaged items awaiting space for treatment will continue to deteriorate. An organisation with a thousand damaged items but space for treating a hundred items per day will find that the condition of the items treated on days 4-10 is significantly worse than the condition of items treated within 3 days. Furthermore, certain formats take up a very large area to dry. The table below indicates how much space the contents of one packing crate might take to dry depending on the range of formats.

Contents of crate	How much can be fitted on a 1.5 x 0.75m trestle table	Number of trestle tables required
Bound volumes 40	20	2
Individual documents approx. 5000 sheets	20 sheets laid singly, interleaved between blotting paper, stacked 10 layers high 200 sheets in total	25
Individual photographs approx. 5000	20 laid singly. Cannot be interleaved as blotting paper may stick to image surface	250

Whilst superficially wet items and flat items dry quickly, saturated objects may take a very long time to dry, often at a slower rate than it takes mould to develop. Furthermore fanning out saturated items may cause stress to the bindings due to the increased weight of the text block. Large format bindings and newsprint are difficult to air-dry and are often more successfully treated through freeze-vacuum drying.

If the source of the water-damage was contaminated, the items will still be contaminated once air-dried. Professional sanitisation using either biocidal washing or gamma-irradiation may be necessary in order to make the material safe to handle after drying. Mouldy items should only be air-dried in a fume cabinet as the air-drying process will spread the spores.

In archival contexts, consideration should be given to the need to maintain order and keep material together. Spreading material out and interleaving documents is crucial if it is to be air-dried effectively, but heightens the risk of collections becoming mixed up. Alternative processes such as freeze-vacuum drying may be preferable as it involves the drying of material in order, in its original boxes.

Stabilisation

When immediate air-drying is not possible or practical due to the scale of damage, nature of damage or physical condition of the items, it is important to stabilise the damage so that treatment can be deferred. For the vast majority of library and archival holdings, this will involve freezing at -18°C to arrest any further deterioration. The freezing process does not dry the items, but it prevents mould growth, further adhesions, further dye migration or bleeding of inks, swelling or distortion. Items can be kept in freezers indefinitely and then either dried from frozen using specialist processes such as freeze-vacuum drying, or thawed in manageable batches and air-dried.

If items are deemed too wet to air-dry or the scale of the incident prohibits immediate air-drying of everything affected, items should be packed for freezing. The techniques described for moving the items in section 5 apply here too. Items that are to be frozen do not need to be interleaved nor require the removal of dustjackets. It is sensible to establish a contract with a disaster recovery service provider as part of your emergency plan. Check that the provider has freezer space for sewage contaminated material (commercial freezer stores for food may not accept this material). It is also useful to identify potential locations nearby that are suitable for freezing a small quantity of material e.g. freezers at local museums, laboratories or universities.

Freezing is not suitable for microfilm, audio tape or videotape. If these items are saturated they should be submerged in clean cold water to stabilise them, and to prevent contaminants drying onto them. These items should not be kept wet for longer than a week. Items can either be professionally reprocessed or vacuum dried.

The only common library and archive format for which stabilisation is not possible is the glass plate negative. Handling should be minimised due to the risk of breakage and they should be air-dried onsite.

Large scale drying

For large scale flooding incidents, immediate air-drying usually proves to be impractical due to the volume of material affected. In these incidents, techniques such as freeze-vacuum drying are usually used. In this process, frozen materials are transferred to drying chambers where the atmospheric pressure is reduced. At low atmospheric pressure, water vaporises at ambient temperatures. Freeze-vacuum drying dries the items in large quantities without exposing the materials to any heat. This process works very effectively for drying paper, including archival documents and bound volumes, both antiquarian and modern. Photographic materials and books with coated papers can be dried through a modified version of this process where the water sublimates from a solid directly to a liquid, which limits the risk of adhesion.

Professional companies with large scale freeze-vacuum drying plant can assist libraries and archives, and some offer retainer systems so that they can be available for emergency disaster recovery support.

8 Working out your salvage strategy

Each organisation will have a different capacity for dealing with material in-house and an associated tipping point at which they need to stabilise the damage in order to minimise further deterioration. Some organisations lack staff, whereas others lack space. It is worthwhile rehearsing emergency salvage on discarded or duplicate stock by wetting it and then drying it in the spaces you have identified for assessing and drying damaged collections. This should give you an indication of your capacity, which can then be built into your emergency plan. Your plan might show that you can comfortably deal with up to 20 boxes or 500 bound volumes in-house but beyond this you would need to stabilise damage and defer treatment. This knowledge will save valuable time during an incident, because having quantified the damage early on, you will know when air-drying is not feasible and adopt a different strategy. This is much better than attempting to deal with the damage in-house and only realising the scale is prohibitive after 72 hours. By this time mould may well be an issue and the items will have suffered 3 days of additional deterioration. Remember too that the space you have identified for assessment/drying may be unavailable in a major incident, and make provision for this in your emergency plan.

Understanding your insurance policy will also help to clarify the appropriate course of action. If you cannot treat the items quickly enough, contact your insurers as soon as possible.

The rate of processing damaged material can be increased by finding extra spaces for drying and/or extra people to help with the process. What will take 2 people 100 hours will take 8 people 25 hours and 16 people just 12.5 hours to complete (assuming there are no other constraints). It is also worth noting that in major incidents every part of the process must come under scrutiny to ensure that it is not slowing down the overall process to a point where it is likely to take months rather than weeks. Techniques that can seem advantageous on paper (for example, crepe bandaging for leather bound books to prevent swelling) can become counter-productive if they slow down the work rate extensively. You should practise a range of techniques during rehearsals so that you are confident how much time it takes to process a given quantity of material in a certain way.

Focussing your resources pragmatically will ensure the best overall outcome in the circumstances. Depending on the scale of the incident, you may wish to triage damaged material. This may involve spending time at the beginning prioritising items that will deteriorate very quickly (for example, coated paper) or identifying where swift intervention will make a major difference (for example, reboxing dry documents stored in wet boxes). Thereafter, the strategy might be bulk freezing wet material and cherry picking items for in-house treatment. Often the most heavily damaged material will be the most time-consuming to handle and will take the longest time to dry, thus exhausting your drying space. If the salvage process is front loaded with this type of material, items that were initially only damp may become increasingly wet and mouldy. Of course, triage also has to be balanced with the fact that some items within your collection may be of greater curatorial interest or value than others and regardless of the level of damage you may wish to target treatment to these items as a matter of priority.

9 Dealing with the building

Water may continue to seep through the building and so the process of clearing up excess surface water should continue throughout, and if necessary, after the salvage

operation. Any damp or sodden materials such as wet carpet and empty boxes should be removed as they add to the moisture loading in the air.

In cases of water-damage, particularly where the water has covered the floor for a prolonged period, care should be taken to ensure that the environmental conditions of the area affected have not changed. An increase in relative humidity, or pockets of moisture that have moved into the building fabric or underneath false floors (for example, plinths that support racking) may cause long-term damage to the initially unaffected parts of the collection through mould growth.

Dehumidifiers should be installed with air movers to ensure that the excess moisture is removed from the atmosphere. Moisture probes should be used on the floor and walls to ensure that moisture has been removed. Given the possible implications of widespread mould growth resulting from increased relative humidity levels, it is recommended that a professional builder, surveyor, or damage management contractor is consulted. Buildings take a long time to dry out. For historic buildings and interiors, care will need to be taken to dry the space out very slowly. Professional advice should be sought.

After the incident, reviews should be undertaken to ensure that the risk of a repeat incident is reduced as far as possible and necessary repairs undertaken.

10 Fire and smoke damage

Damage resulting from fires in library and archive buildings is highly variable in its severity. Usually a large proportion of a library or archival collection will be salvageable after a fire. Unlike water damage, fire damage does not require urgent treatment to avoid secondary damage, unless the affected items are wet, in which case they will need to be dried or stabilised within 72 hours.

The items closest to the seat of the fire will usually have suffered the most severe damage and may have come into contact with flames. These items may be charred and scorched and such damage may not be restorable. If the damaged items are bundles of documents or files, the consequences of the damage may not be as severe as they initially appear. The paper is most likely to have burnt from the edge

inwards, leaving a large proportion of the information in the file or on a document to survive. In a library context, the worst of the damage will be to the binding and the cost-effectiveness and viability of restoration will depend on the nature of the collection, its value and the possibility of replacement.

The vast majority of damage from fires is caused by smoke. Where dampers are not fitted, smoke can travel significant distances through voids, defunct air shafts and spread throughout a building. Again, damage will be worst closest to the seat of the fire or by windows, which may have broken and fed the fire. Smoke concentrations are likely to be at their greatest on the highest shelves.

Boxes and cupboards will keep out much of the smoke, although some smoke penetration is usually seen. Most of the smoke is likely to settle on horizontal surfaces, with lesser deposits on vertical surfaces such as the spines of bindings. These deposits can often be removed by cleaning with smoke sponges made of vulcanised rubber. Plastics can compound damage by melting or bubbling in the heat of a fire. This is most likely in modern collections where books are covered in plastic and in audiovisual collections, where items are commonly housed in plastic boxes.

Generally fire damage is easy to remove, but because it usually affects a large proportion of the collection, insurers often pay for disaster recovery companies to clean the items. It may be possible for such companies to treat residual odour in bulk through specialist processes. Where both water and smoke have affected items, the water damage must be treated first as a priority, and then cleaning completed afterwards. The wetting of the smoke residues may result in residual staining which cannot be removed.

Conclusion

The success of a salvage operation is dependent on prompt action and familiarity with the materials to be salvaged. Although salvage is only one part of emergency control planning, it is well worth investing time in both planning and practising salvage operations. This will not only ensure an effective response to an incident but will also help to build the confidence of salvage team members.

Online resources and additional reading

Dadson, E., Emergency planning and response for libraries, archives and museums, London: Facet, 2012

Emergency planning pages, on the Preservation Advisory Centre website

www.bl.uk/blpac/disaster.html

Emergency response and salvage wheel (In English and Spanish)

Washington DC: Heritage Preservation, 2011

www.heritagepreservation.org/catalog/wheel1.htm

Salvage at a glance (by Betty Walsh)

Published as an insert to the WAAC Newsletter, Vol. 19, No. 2 , 1997

<http://cool.conservation-us.org/waac/wn/wn19/wn19-2/wn19-207.html>

Template disaster plan

Harwell Document Restoration Services, 2009

www.hdrs.co.uk/templateplan

Preservation Advisory Centre

The British Library
96 Euston Road
London
NW1 2DB

T +44 (0)20 7412 7612
blpac@bl.uk
www.bl.uk/blpac