
If the worst happens: the use and effectiveness of disaster plans in libraries and archives

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Abstract

The disaster plan is promoted as a central part of disaster management. Six case studies of UK libraries and archives were used to investigate the development and use of disaster plans. During a disaster, the key in any response is leadership, an experienced team of staff with knowledge of the collections and on-site conservation expertise. The most useful part of the plan for disaster response is its contact lists. However, the plan is an important policy and training document. It requires continued managerial commitment and should be supported by an organisational culture of disaster awareness and prevention. Organisational issues are the major constraint on the effectiveness of disaster planning and response. There is a need to investigate current levels of planning in the UK in order to determine what still needs to be done in terms of awareness raising. Methods of testing the disaster plan and co-operation in disaster management also require further research.

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Introduction

The infamous Florence flood of 1966 is commonly credited with stamping the importance of disaster preparedness firmly on the library profession's consciousness (Fox, 1989, p. 1). Unfortunately, subsequent decades also witnessed further large-scale library disasters. Examples include fires in Los Angeles Central Library in 1986 and the Academy of Sciences in Leningrad a year later. The 1990s also saw further developments in this field, unfortunately due to further notable disasters. These included the IRA bombing in the City of London in 1992, which affected the Commercial Union library, and the catastrophic fire at Norwich Central Library in 1994. This latter event led to many seminars, meetings and even a research project on the topic (Matthews and Eden, 1996a).

A number of terms are used interchangeably in the literature, including disaster planning, disaster control planning, and emergency or contingency planning. Risk management has also become fashionable. For their research project in this area, Matthews and Eden (1996a) adopted disaster management as their preferred term, as it emphasises that the process involves much more than the disaster plan.

Definitions of the three major concepts that are helpful are:

A disaster is any incident, which threatens human safety and/or damages, or threatens to damage a library's building, collections, contents, facilities or services (Matthews and Eden, 1996a, p. 4).

A disaster plan is a document, which describes the procedures, devised to prevent and prepare for disaster, and those proposed to respond to and recover from disaster when they occur (Lyll, 1996).

[Disaster management] includes much more than the formulation of a written disaster control plan. It encompasses broader management issues such as finance, risk assessment and training. Using the term disaster management also emphasises that it ought to be treated as a key area of library management and afforded due attention by senior management and any key parent organisation (Matthews and Eden, 1996a, p. 4).

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Although disaster is a strong word, bringing to mind catastrophic occurrences of great proportions, an event does not have to be of significant size for it to be disastrous in a library (McIntyre, 1989, p. 1).

The development of disaster management and disaster plans

In the UK, the mid to late 1980s, in particular, was a period of awareness raising activity in the field (Matthews and Eden, 1996a, p. 2) with the disaster plan as a central theme. Notable developments included:

- The National Library of Scotland's *Planning Manual for Disaster Control in Scottish Libraries* (Anderson and McIntyre, 1985). Many libraries have used this as a model for their own plans (Feather *et al.*, 1996, p. 9).
- The British Library published an outline disaster plan in 1987 (Tregarthen, 1987).
- The National Preservation Office co-sponsored a disaster plan competition in 1988, publishing the winning plan and two others the following year (National Preservation Office, 1989). The NPO also produced a video, *If Disaster Strikes!* (National Preservation Office, 1988).

Many works offer advice and even model plans; notable examples include England and Evans (1988), Buchanan (1988), Matthews and Eden (1996a) and Kahn (1998). Various writers have identified a number of phases in the disaster management process. The framework originally developed by the National Library of Scotland of prevention, preparedness, reaction and response, has been adopted and further developed by Matthews and Eden (1996a), during their research project and is used here to discuss the issues.

Prevention

Identifying possible risks is a vital part of the disaster management process. Although risks can never be completely removed, much can be done to mitigate their effects. McIntyre stresses the importance of both disaster prevention and disaster reaction, a dual approach to manage risk fully (McIntyre, 1998, p. 457). Therefore, the first and vital stage of any preventive strategy is a full risk assessment of the building, both inside and out (McIntyre, 1998, p. 454).

Other preventive measures are detailed in Matthews and Eden's guidelines, including

staff awareness, regular inspections of buildings and security measures (Matthews and Eden, 1996a, p. 14). Any or all of these actions may help to prevent or mitigate a disaster, but a key ingredient in this process is developing a preparedness strategy.

Preparedness

The preparedness phase is "when everything is supposed to come together on paper" (Kahn, 1995, p. 33). The result is the disaster plan. England and Evans (1988, p. 43) suggest the document is likely to evolve as a mix of narrative text, emergency plans, recovery instructions and directory information. Elements such as preventive measures, procedures in the event of a disaster, contact numbers, priorities, list of disaster supplies, salvage techniques and revision procedures are seen as crucial sections of a disaster plan (Ferguson, 1998, p. 29). Overall, the plan should have three key characteristics, namely "comprehensiveness, simplicity and flexibility" (Graduate School of Library and Information Science, 1995).

Developing such a document can be a complex and difficult task. In larger libraries, responsibility is usually assigned to a senior staff member and a committee is established to develop and implement the plan (Feather, 1996). In smaller libraries, responsibility normally rests with one individual, often the library head (Feather, 1996). It is suggested that staff need to be given the opportunity to develop a sense of "ownership" toward the disaster preparedness effort (Fox, 1989, p. 3). Overall, the message from the literature is that although the plan is vital, management need to "foster a disaster management culture" throughout the organisation (M25 Consortium, 2001).

Also key to preparing a disaster plan and ultimately recovery is the personality and skills of the disaster manager. Matthews and Eden identify three key roles in disaster management, the disaster manager, disaster reaction manager and the disaster recovery manager (Matthews and Eden, 1996a, pp. 11-13). Libraries may decide that a particular member of staff may well assume all three. According to Joseph and Couturier (1993, p. 317) support for the plan must be maintained at the top of the organisation.

However, "having a plan and being able to implement it are two different things" (Joseph and Couturier, 1993, p. 321). Joseph and

Couturier (1993) have even suggested that there may not be time to refer to a documented plan during a disaster. Once the plan has been written, staff need to know of its existence and be trained to prepare for the worst. One of the chief reasons for the failure of a disaster plan is a "lack of staff awareness". People make plans work by being familiar with their contents (Lyll, 1996).

Kahn (1998, p. 50) describes two views on training staff.

- (1) The first is to teach only the disaster response team, who will lead the operation and will train others. This will be necessary if the size of the disaster requires the use of volunteers.
- (2) The second method is to make the entire staff aware of the plan and basic response actions and then provide additional training for the disaster response team and interested staff members.

Kahn suggests that preservation librarians and consultants prefer the second method. However, Matthews and Eden (1996b, p. 32) stress that training needs to be targeted on a "need to know" basis at sufficiently frequent intervals.

According to the literature, another important element of the preparedness strategy is the testing of the disaster plan. Methods such as brainstorming sessions, practical workshops as well as simulations can be employed. "The importance of carrying out practice runs cannot be over-emphasised; there is quite simply no other way to find out whether or not such a plan will actually work" (Matthews and Eden, 1996b, p. 35). Despite this emphasis on testing, relatively little literature exists on conducting such exercises (Page, 1993, p. 9).

Reaction

Once a disaster occurs, a quick and efficient reaction is needed. Lyll (1996) cites the size of the disaster as one of the four reasons why a disaster plan would fail. If a disaster results in the total destruction of a library or archive, having a plan will not assist in the recovery of a collection. Lyll's other reasons for failures are a lack of staff awareness, the unpredictability of disasters, and a lack of adequate examination of the disaster scene. She is one of the few writers who also suggests criteria to measure the success of the disaster recovery effort ranging from the frequency of disasters to the value of material lost.

While it is clear from the literature that the plan is important, anecdotal evidence also suggests that there are other key ingredients for successfully managing a disaster (Maslen, 1996). Most notably these include leadership, communication and "staff with prior experience and training" (Bush and Lunde, 2000). Kahn (1998, p. 47) identifies three types of communications:

- (1) with employees;
- (2) with suppliers and patrons; and
- (3) with the media and general public.

Kahn (1995, p. 53) also notes that this is an aspect of disaster response that is often forgotten in the planning phase.

Recovery

This stage focuses on the long-term future of library and archive services. A number of significant gaps with regard to longer-term disaster recovery have been identified in the *Library Disaster Planning And Recovery Handbook* (Alire, 2000). Much of the literature concentrates on instructions for salvage, although Kahn focuses on making sure that services are re-established quickly and some writers do advise libraries and archives about the potential problems of longer-term recovery.

Another important element of this stage is the review of the disaster plan. The literature advises that a debriefing of all staff involved in disaster recovery is vital to obtain the views of participants. The lessons learned should then be fed back into the planning process and the disaster plan amended appropriately (Matthews and Eden, 1996a, p. 168).

While not always articulated as an aspect of disaster management, the first priority in any disaster is human safety (Graduate School of Library and Information Science, 1995). A problem often not addressed by any disaster plan is how to deal with employees and their reactions to major disasters (Graduate School of Library and Information Science, 1995). Minimising stress is cited as one of the main reasons for developing a disaster plan (Kahn, 1998, p. 12); the physical and mental stress that staff can suffer is generally underestimated. Matthews and Eden (1996a) emphasise the importance of the availability of counselling. Paton and Flin (1999) are concerned that comparatively little research has been carried out into disaster stress among emergency managers, as compared with survivors and helpers (Layzell Ward,

2000). Training plays a pivotal role in managing stress reactions.

The use and effectiveness of disaster plans

Although there is much advice available in the literature, a number of preservation surveys have revealed that many libraries have not developed any kind of disaster plan. The most recent large-scale investigation in the UK was in 1995; this demonstrated that only 20 per cent of respondents had such plans (Feather, 1996). These disappointing figures are in spite of the fact that statistics suggest a library can expect to experience a disaster of some sort in a ten-year span (McIntyre, 1988, p. 42).

McIntyre (1988) emphasises that a library or archive should not be deterred by an inability to compile a complex plan. McIntyre claims that there are cases of the most basic plans being successful and that any plan is better than no plan, although he does not give any details of such successes.

There has been little investigation of how plans are actually used in a disaster situation and their effectiveness as a disaster management tool. The research reported here aimed to address these issues. Our objectives were:

- To identify what the staff of library and archives in the UK understand by the term disaster management.
- To investigate how disaster plans are developed, including any internal or external sources of expertise used and any institutional constraints and their impact on planning.
- To assess how well plans worked, identifying the elements that did or did not work.
- To investigate the post-disaster review process, including if and how practical disaster experience is incorporated into the disaster plan.

Methods

We employed a case study approach to gather in-depth data. The criteria for selection were that an organisation had developed a disaster plan that had subsequently been tested in a disaster situation. There was some difficulty in identifying potential UK case study

organisations; in the end only six case study organisations were identified.

The case study organisations included two large university libraries, a small specialist university library, a special library and archive and two county archives. The organisations had dealt with floods, fire and a moth infestation. Face-to-face interviews were used for data collection.

Results

Disaster management definitions

Some interviewees gave very narrow definitions, merely talking about a reaction capability. One preferred to use terminology such as business continuity planning, feeling it encompassed more issues, such as service continuity.

However, prevention was seen as key by all the organisations consulted. Some interviewees mentioned the need for risk assessments in devising a plan as well as environmental monitoring of possible future risks. One respondent preferred to stress the importance of maintenance, emphasising that most small disasters result from poor or neglected maintenance. Measures such as a maintenance checklist, fostering relations with the emergency services, and boxing records were all cited as positive preventive actions. A measure such as boxing is perhaps more feasible in an archive setting; nevertheless it could be extended to some library materials, such as pamphlets or special collection items.

Another factor highlighted by a number of participants was what is actually meant by the term disaster. A number of participants emphasised issues concerning security of stock as well as the growing importance of digital data. The definition is vital because it informs the aim of the plan and will ultimately have to be used in order to decide whether or not to activate the plan.

Development of disaster plans

Developing a plan is a complex process, and a number of interviewees talk about their "steep learning curves". It is clear that in all the case studies, the disaster plan has been devised, or at least promoted, by a determined individual at a senior level. In a large organisation, a committee is often used in developing the document. It is apparent that dynamic

leadership plays a vital role; in one organisation, without this leadership the process went into abeyance. This dependence on a key personality is a potential weakness.

Therefore, although an individual may promote it, the plan needs to be integrated into the general managerial activities of the organisation. One of the methods used in the larger institutions is the development of a committee that meets regularly to review the document. The committee is often a means to draw in expertise from across a large organisation and can highlight the different responsibilities of departments and emphasise the importance of the plan. However, using a committee can also lead to a lack of "ownership" of the plan.

Whatever mechanism is used to develop the plan, the process must take into account all the possible stakeholders and users of the plan. When the library or archive is part of a larger organisation, other departments in the parent organisation may be able to provide expertise, such as advice on health and safety aspects. More often, the co-operation of other departments is needed for effective implementation of disaster management. In a university setting, other departments such as Estates may have overall responsibility for library buildings and their maintenance. In a council-run archive it may be departments such as Emergency Planning and Property Services that have to be taken into account. Unfortunately, other departments may lack the commitment to disaster management in the library or archive. It is very easy as an outsider to criticise organisations because of this factor, but internal politics may have a negative impact on the plan as well as the response to a disaster. One respondent suggested that, as far as possible, the library or archive has to have its own systems in place, and develop a credo of self-help.

Elements of the plan

There is some variety in the nature and content of the plans of the six organisations. For example, while one organisation details step-by-step procedures, another emphasises the contact list. The literature emphasises that there is no right or wrong format for the plan (McIntyre, 1988, p. 42); it must be driven by individual institutional needs. For example, one archive lacks expertise in salvage procedures so there is an intention to add salvage instructions to aid in the response.

While the literature highlights salvage priorities as an important element of any plan (Swartzburg, 1995, p. 98), the interviewees did not really talk directly about this issue.

One respondent suggested that the plan should provide sensible common-sense actions in a formal setting. It is clear that the document should always take into account the end user. It is often security staff that receive the first news of a problem. Cleaning staff discovered one of the case study disasters. The plan must be clear and understandable. If a document is too text-based, this may impact on the speed of response. Therefore, a clear structure, contents page and perhaps an index are key. Some of the case study organisations have produced a one-page plan, highlighting immediate actions, people to call and where to locate the main document.

It is also vital that a plan should provide some flexibility. It is unclear whether detailed procedures are actually effective, because all disasters are different. Indeed a plan may be forced through to the detriment of the recovery effort. One of the organisations emphasised putting the right person in charge and allowing them make the necessary decisions as the situation demands. However, a point that must be underlined is that for every role there must be a deputy.

Another issue raised in the interviews is the scope of a disaster plan. This point goes back to the issue of how disaster is defined. A growing area of concern is digital information. Should a virus be classed as a disaster in a library or archive and be included in the disaster plan? Some of the case studies were investigating this issue and the feeling was that the response must be appropriate to the role that digital information plays in the collections. Another point is that the service is not just about the collections; it is also about facilities, furniture and equipment. Service continuity was highlighted by a number of participants as an objective of their disaster plans.

Format and location

One of the case studies, with a relatively long history of disaster planning, expressed concern about the bulkiness of its plan as a document. The longer the document, the more time it takes to wade through the detail in order to find useful information, reducing its usefulness. Therefore, at this organisation

there is a strategy to remove what is perceived to be static information and place it on an electronic staff network. Another institution suggested that this form of dissemination would provide the best location for a skeleton form of the document, alongside other important organisational policies.

However, the plan should not just exist in electronic form or it could become a victim of the disaster too. In one of the organisations, flooding knocked out the electricity. Neither should all paper copies be kept in the building; at least one member of staff should have a copy of the plan at home. Each organisation must also address how widely sensitive information, such as home contact details, should be circulated: the data protection implications need consideration.

Disaster plan usage

Most of the interviewees felt that the disaster plan gives staff the confidence to deal effectively with any problem that arises. However, the majority of plans seem to be used simply in the initial stages for their contact lists, to get the right people to the scene quickly. The use of its one-page disaster plan seems to have been key in one of the organisations. Also mentioned as useful are the lists of disaster supplies so that items can be retrieved quickly.

As each disaster is unique, flexibility of response seems to be key. Although a plan may detail procedures, you should not "paint yourself into a corner". A more sensible approach does seem rather to develop a clear chain of command and responsibilities in advance and leave the response to a particular situation to the disaster manager and his/her teams. They should assess the scene and decide on the necessary procedures based on prior training.

Where there is a lack of such training, then help needs to be sought quickly. The major method used to address this is to have a contract with a disaster recovery company, whose details should form a vital part of the plan. Often, where regular training is undertaken, staff at the scene have recovery efforts well in hand before the official disaster team arrives, only using the plan for its contact lists. This suggests that some form of regular training is effective in aiding a swift response in any situation. Where such training is unavailable or not done, then it would be useful to include salvage

instructions into a plan, a lack that was felt in one organisation. A key factor in recovery appears to be the use of staff with knowledge of the collections, which are able to work effectively as a team.

Review

Perhaps one of the most important issues in any disaster plan is how it is reviewed. A vital element that must be included is a formalised review procedure, time scale and assignment of responsibility. A number of institutions have developed committees to regularly review the document. The literature suggests that plans should be reviewed at least once a year (Matthews and Eden, 1996a, p. 126). Again, this procedure should not be dependent on one individual, but incorporated into normal managerial activities.

It is also vital that the plan should automatically be reviewed post-disaster. It is here that key limitations and problems can be highlighted and changes made. Input should be gained from all participants in the disaster reaction. It is clear that in the wake of a disaster there is great impetus to make positive improvements. This needs to be harnessed to avoid the situation, as in one of the case studies, in which, a year on, the plan is still awaiting the addition of salvage instructions.

There was concern that the process of updating even something as simple as a phone number is not as rapid as it should be. The way plans are updated is also important; plans covered with numerous handwritten corrections could be unusable during an event. Whenever the plan is changed all relevant personnel with copies should be informed or copies should be replaced. One library is addressing this issue by making the plan looseleaf. It also should be mentioned that old plans should be recalled, in order that everyone only has the most up-to-date copy available.

Staff awareness and training

One case study sees staff awareness in terms only of the management directly involved in the planning. However, if staff are unaware of the existence of the plan or its location, how will they know how to activate it in a crisis situation? This happened in one of the organisations, where neither the plan nor the supplies were used. Efforts must be made to

foster a sense of ownership towards the plan, so that people recognise its importance. Methods used in a number of institutions include regular training and awareness sessions, the plan forming an important part of staff inductions. A more important point is perhaps the fact that an aware staff working regularly in a building is the best defence against disasters. The organisational culture has to encourage the noting of potential problems.

Alongside awareness is the issue of training of staff. The literature details a number of approaches. Targeted training of the disaster teams is often the most feasible method and is done in a number of the organisations consulted. This, in turn, needs to be instituted regularly again to combat inevitable changes in staffing. Where staff have experience of dealing with disasters, it may not be necessary to consult the plan because they know what to do. However, such arrangements are driven by the existence of a plan.

Testing

Another issue is the benefit of formally testing the disaster plan. The furthest the organisations had gone was discussing possible scenarios with staff. Nevertheless, one organisation was looking into issues of training and perhaps a dummy run, seeking help from their disaster recovery firm. The issue was not seen as an important part of the process by the interviewees, despite the importance attached to it in the literature by authors such as England and Evans (1988, p. 54) and Matthews and Eden (1996a, p. 27).

Common problems

Despite the uniqueness of the disasters mentioned, a number of common problems are apparent. These include:

- inaccurate contact lists;
- failures of other departments;
- lack of planned process to record items sent for freezing;
- inadequacy of disaster supplies;
- problems following health and safety guidelines.

A number of these issues have been detailed in previous sections. It is clear that if a disaster is of a significant scale, then disaster supplies will prove inadequate. While some items can be acquired at the time, it would be useful for

a plan to provide details of suppliers of more specialist equipment.

Another major, and perhaps fundamental, issue talked about in detail by a number of participants were problems following health and safety guidelines during disaster recovery. One respondent expressed concern about the lack of risk assessments before entering a disaster scene.

It is not always possible to follow best practice during disasters. Staff tend to work too hard, driven by their commitment to the stock. A number of people suggested that more personnel would have allowed for more frequent breaks. However, often disaster scenes are quite contained spaces and lots of staff could become a hindrance. This is an issue for the disaster manager at the time of the disaster, although the plan should provide lists of staff that are willing to participate in a recovery, with relevant contact numbers.

Communication and co-operation

Only larger scale disasters tend to be reported in the professional or general press. While the literature emphasises the importance of communication, more often there is a definite lack of dissemination even to users of an institution. Serious damage raises issues about the visibility of the service, especially if the library or archive is affected for a long time. The lack of dissemination may be because many disasters are small-scale and do not seriously disrupt service provision. Only one case study sought to provide information on a Web site. For larger-scale events many institutions had expertise such as a university press office to call on.

Although the disaster plan is seen as important, its development and maintenance should be integrated into standard managerial responsibilities and not take precedence over other activities. Indeed, having to spend a great deal of time on a document for an incident that might not occur could foster a sense of contempt rather than ownership of the disaster management effort.

Finally, an important theme that emerged in the course of this investigation is co-operation in disaster management. One of the case studies participates in perhaps the best-known UK example of a consortium with an interest in the topic – the M25 Consortium. There was some evidence of use of more informal local sources of expertise. However, there was also evidence of a lack of

awareness of possible sources of local assistance and a reliance on commercial disaster management companies. One organisation prompted by its experience hopes to develop a consortium, sharing experience as well as reciprocal arrangements if the worst did occur.

Conclusions and recommendations

The aim of this research was to evaluate the effectiveness of disaster plans for libraries and archives. The sample used for this investigation was inevitably small, so the conclusions made here are tentative.

Prevention is clearly seen as a vital strand of the disaster management philosophy in the literature and by the interviewees. Nevertheless, all the institutions have faced a number of disasters. Codes of conduct and regular checks of contractors' progress can go some way to answering this latter issue. However, these measures have to be underpinned and supported by regular building maintenance and an aware staff who are encouraged to report potential problems.

All these elements must be developed by a management ethos that is continuously committed to the disaster management process. Often in larger organisations, a committee of senior staff can draw in expertise from other departments. Organisations such as the National Preservation Office, the United Kingdom and Ireland Blue Shield Organisation (UKIRB), and co-operative efforts such as the M25 Consortium can help here. However, it is clear that there is a need to determine the current level of disaster planning in cultural organisations as well as the number of institutions that have faced disaster situations. The UKIRB was, at the time of writing, launching such a survey. Hopefully this survey will reveal a much higher level of planning than was discovered in 1995. If not, action will be needed to rectify this.

As for disaster plans, a key constraint appears to be the necessary reliance on other departments of the parent organisation. Although they may provide expertise, they may not respond effectively when asked for assistance during a disaster. Because of the difficulties, a number of respondents

suggested a credo of self-help. This is a difficult problem to be overcome, and would require commitment of disaster management at the very highest level and clear communications between departments in the parent.

This research suggests that the disaster plan itself is more relevant as a policy document, which drives such issues as staff awareness, ownership, training and testing, rather than a manual for disaster response. It is vital that staff have an awareness of the existence of the plan and the positive contribution they can make by being aware of maintenance problems. Training is also useful for allowing staff to develop the skills necessary to respond effectively and immediately to any crisis. However, it is crucial that these contact lists are reviewed regularly to ensure that the information is always current.

While the literature emphasises the importance of testing disaster plans, there is little practical advice and none of the case study organisations had ever formally tested the plan prior to a disaster. This is an area where there could be a lot more research, to investigate how such testing might be effectively carried out to assist disaster managers.

It is also clear that on-site assistance, whether from an organisation's conservation staff or from a disaster recovery firm, is a vital factor in disaster response. This in turn highlights an emerging issue in this investigation, namely co-operation in disaster management. Responses from interviewees suggest that at least an awareness of where help and assistance can be sought, would be very useful. This is at complete odds with the general lack of dissemination of experience gained from dealing with such events. This reluctance may be due to a "guilt" or "blame" culture, but it has to be overcome so that the profession can learn from the experiences of others. There is already some evidence of co-operative activity in this area and the possibility of expanding such activity should be investigated.

It is vital that all organisations develop policies and procedures to face possible disasters. The ability to respond effectively relies on much more than a paper document. This research has highlighted various issues that have both positive and negative impacts on an effective disaster response.

References

- Alire, C. (Ed.) (2000), *Library Disaster Planning and Recovery Handbook*, Neal-Schuman, New York, NY.
- Anderson, H. and McIntyre, J.E. (1985), *Planning Manual for Disaster Control in Scottish Libraries and Record Offices*, National Library of Scotland, Edinburgh.
- Buchanan, S. (1988), *Disaster Planning: Preparedness and Recovery for Libraries and Archives: A RAMP Study with Guidelines*, Unesco, Paris.
- Bush, C. and Lunde, D. (2000), "The disaster recovery process for collections", in Alire, C. (Ed.), *Library Disaster Planning and Recovery Handbook*, Neal-Schuman, New York, NY.
- England, C. and Evans, K. (1988), *Disaster Management for Libraries: Planning and Process*, Canadian Library Association, Toronto.
- Feather, J.P. (1996), *Preservation and the Management of Library Collections*, 2nd ed., Library Association, London.
- Feather, J.P., Matthews, G. and Eden, P. (1996), *Preservation Management: Policies and Practices in British Libraries*, Gower, Aldershot.
- Ferguson, M. (1998), "Now what do we do? Training people to manage disaster", *Colorado Libraries*, Vol. 24 No. 3, pp. 27-30.
- Fox, L.L. (1989), "Management strategies for disaster preparedness", *The ALA Yearbook of Library and Information Services: A Review of Library Events*, 16, pp. 1-6.
- Graduate School of Library and information Science (1995), "Disaster planning in museums and libraries: a critical literature review", available at: www.lis.uiuc.edu/review/summer/1995/mccracken.html (accessed 5 April 2001).
- Joseph, G.W. and Couturier, G.W. (1993), "Essential management activities to support effective disaster planning", *International Journal of Information Management*, Vol. 13 No. 5, pp. 315-25.
- Kahn, M. (1995), *Disaster Prevention and Response for Special Libraries: an Information Kit*, Special Libraries Association, Washington, DC.
- Kahn, M. (1998), *Disaster Response and Planning for Libraries*, American Library Association, Chicago, IL.
- Layzell Ward, P. (2000), "An overview of the literature of management and library services", *Library Management*, Vol. 21 No. 3, pp. 128-52.
- Lyall, J. (1996), "Disaster planning for libraries and archives: understanding the essential issues", *Provenance*, Vol. 1 No 2, available at: www.netpac.com/provenance/vol1/no2/features/lyall1.htm. (accessed 12 November 2001).
- M25 Consortium (2001), Disaster Control Planning Site available at: www.m25lib.ac.uk/M25dcp/, (accessed 6 July 2001).
- McIntyre, J.E. (1988), "Disaster control planning", *Serials*, Vol. 1 No. 2, pp. 42-6.
- McIntyre, J.E. (1989), "Action planning for disaster", *Refer*, Vol. 5 No. 4, pp. 1-7.
- McIntyre, J.E. (1998), "A dual approach to risk management", *Liber Quarterly*, Vol. 8 No. 4, pp. 448-57.
- Maslen, C. (1996), "Testing the plan is more important than the plan itself", *Information Management and Computer Security*, Vol. 4 No. 3, pp. 26-9.
- Matthews, G. and Eden, P. (1996a), *Disaster Management in British Libraries: Project Report with Guidelines for Library Managers*, The British Library, London.
- Matthews, G. and Eden, P. (1996b), "Disaster management training in libraries", *Library Review*, Vol. 45 No. 1, pp. 30-8.
- National Preservation Office (1988), *If Disaster Strikes!* (video cassette).
- National Preservation Office and Riley Dunn and Wilson (1989), *Keeping Our Words: The 1988 National Preservation Office Competition: the Winning Entry and Two Highly Commended Entries*, British Library, National Preservation Office, London.
- Page, J.A. (1993), "Exercising your disaster plans: a tabletop drill", *Conservation Administration News*, Vol. 54, July, pp. 8-9.
- Paton, D. and Flin, R. (1999), "Disaster stress: an emergency management perspective", *Disaster Prevention and Management*, Vol. 8 No. 4, pp. 261-7.
- Swartzburg, S.G. (1995), *Preserving Library Materials: a Manual*, 2nd ed., The Scarecrow Press, Metuchen, NJ.
- Tregarthen, J.I. (1987), *Disaster Planning and Preparedness: an Outline Disaster Control Plan*, British Library Research and Development Department, London.

Further reading

- Patkus, B.L. and Motylewski, K. (2001), *Disaster Planning*, available at: www.nedcc.org/plam3/tleaf33.htm, (accessed 3 April 2001).