Assessing and managing the risks of split-site archive services

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1 Introduction

Increasingly archive services have to consider and/or manage considerable proportions of archival storage away from the main archive service site. In some cases services are considering storing 80-90% of their collection away from their main office and access point. This approach has many implications which should be considered, not least for managing the archive collections and resources of the service.

The National Archives recognises that all development options should be considered for improving archive services. However, we do not see a split-site solution as ideal. We believe a single site offers greater benefits and we recommend that all options are fully tested before a split site option is preferred. When you are considering options for archival storage consider risks to archive collections resulting from:

- a move to split-site service
- the increased pressure on resources due to the management of these risks

There are implications for organisations holding controlled classes of records. Such organisations should consult The National Archives if considering a split site solution.

1.1 Purpose

This guidance is designed to assist archive services to assess and manage the risks of a split-site archive service, but it will be useful to services considering other solutions. It will assist services which are:

- considering moving to a split-site archive service
- assessing a variety of options for new archive storage
- considering moving away from a split-site arrangement and wishing to assess the benefits and implications

This guidance outlines some of the implications and challenges of a split-site service. It uses a risk management approach to assessing and managing split-site services and describes systematic methods of assessing options and minimizing the archive service’s exposure to risk. By providing a framework in which to assess the options for split-site archive services, this guidance looks in detail at assessing the risks to collections and how to manage these risks.
1.2 Definitions

A **split site archive service** is one in which the majority of the collection is stored on a separate site to the main staff office and access point. Traditionally archive services have used out stores to hold collection overspills or for a temporary period. A split-site archive service is different from an out store, as it is the result of a conscious decision to manage a service across separate sites for providing access and for storing the majority of collections.

As defined by the HM Treasury Orange Book, **risk** is uncertainty of outcome, and good **risk management** allows an organisation to:

- have increased confidence in achieving its desired outcomes
- effectively constrain threats to acceptable levels
- take informed decisions about exploiting opportunities

2 The impact of running a split-site archive service

In preparing this guidance we interviewed a number of archive service managers that have either considered, currently manage or have moved away from split-site services. Case studies of a number of these are included at Appendix 1 and have informed the design of the guidance.

Risks identified by the interviewees can be split into four categories:

1. impact on the efficient and cost effective management of the archive service
2. impact on the staff and users of the archive service
3. impact on the efficient compliance with legislation
4. impact on the collection

The impact of a split-site service can vary depending on the quality of the storage accommodation but the potential impacts are outlined in detail below.
2.1 Impact on the efficient and cost effective management of the archive service

In the interviews archive services seeking to move away from split-site provision described the substantial impact on the service arising from managing a split-site service. They reported the following disadvantages:

- Organising the management of an additional storage site and environment took up a large proportion of staff time
- The retrieval system either took up a considerable amount of staff time and/or was at an ongoing cost. The level of retrievals and therefore their cost was difficult for the archive services to control and this caused budgeting difficulties
- A large amount of staff time was required to establish the storage and retrieval service, write procedures and design an additional disaster plan
- The service managers had to include another site in disaster and continuity planning. One interviewee described how the off site store would act as the replacement headquarters for the organisation in the case of disaster at their headquarters and the benefits this brought
- Split-site service provision resulted in increased building costs, including the ongoing costs for building management and security
- The Keep, in East Sussex, examined whether to phase building its main on site store and to run a temporary out store for a period of years. They found that the future projected rise in building costs, added to the out store rental, would make this prohibitively expensive

2.2 Impact on the staff and users of the archive service

For some of the split-site archive services consulted this was the most challenging of the potential impacts. They reported the following disadvantages:

- Disgruntled service users were unable to get the immediate access to collections that they expect. Users of split-site services need to pre-order, which can cause difficulties for staff when users visit without being aware of this. Service users may also examine items more quickly than expected and run out of material to study during their visit
- Internal users usually want immediate access which is not possible with a split site. Services with mainly internal users reported that they were not able to be as spontaneous
in their use of the archive, for example, to show star items to important visitors or to provide immediate support to the organisation. ‘Star’ items can be stored on the main site to meet the demand for show items. For other archives used to provide legal and other support a split-site service means there could be a costly delay in providing access

- Many off site stores have inferior working resources for staff which limits the work they can undertake on the collections. For example these sites may not have networked computers or be suitable sites for regular working
- Managing an extra site and retrieval service is a distraction and a drain on staff time
- For staff working alone off site there are a number of risks to be managed. The Health and Safety Executive provides guidance on the issues to consider. See Appendix 3

In addition to the disadvantages reported in our case studies, we are aware that if uncatalogued archives are stored off site they are often more inaccessible to users than when they are stored on site. This is because it is more difficult for staff to search uncatalogued collections stored off site.

Services also report the following advantage for staff and users:

- Services opting for split-site service provision often have little opportunity to build additional storage on their main site. They reported that having a split service meant that they had sufficient storage for their needs. The result was that they were able to accept collections that would have otherwise been at risk of destruction, sale or damage

### 2.3 Impact on the efficient compliance with legislation

In designing or considering their split-site service, interviewees were aware of the need to ensure compliance with information legislation. This legislation includes:

- [Public Records Act 1958](#)
- [Data Protection Act 1998](#) (DPA)
- [Freedom of Information Act 2000](#) (FOI)
The services interviewed reported the following disadvantage:

- Split-site service provision meant that there were two sites which needed to be compliant with the legislation. This brought extra work for staff in managing both buildings to the required standard and in meeting the access requirements of the legislation, particularly retrieval times

### 2.4 Impact on the collection

The impact of running a split site on a collection is dependent on the quality of storage. A high quality storage environment can reduce the risks but interviewees reported the following potential risks which could impact negatively on the collection:

- Risks from the regular transfer of material to access points. This can include a range from the risk of small handling damage to the risk of destruction when travelling between sites
- Risk of dissociation of material. Material may be replaced in the wrong box or may not return to the right site
- Risk of neglecting collection care, conservation and information needs of the collection as the majority of the collection is away from the main work site. These needs are more important for split-site services as effective description and location information allows users to find items efficiently and for staff to retrieve and control them in transit

Off site storage buildings are often on a remote, less supervised site. This increases the risk of damage from fire, water and theft. In addition, any such damage may have a greater impact as it may take longer to identify and rectify. A one site service will have regular formal and informal visual checks of building security and condition. Split-site services need to have a formal system of checks, which require site visits and/or automated systems. Without such formal checks the service would be reliant on checks during archive retrievals, which could occur irregularly. This has the potential to allow incidents such as a small leak becoming a major flood unobserved.
3 Tools for assessing sites for archive services

The risks identified by our interviewees will not apply to each site or service design under consideration. The following sections consider how to assess the options and consider the risks for each option under consideration.

3.1 Assessing the options

When assessing the site options for archive services, there are usually a number of possible approaches and storage sites which could be used to meet the desired objectives. Consider these options thoroughly so that the final decision represents good value for money and the best outcome for the archive collection and the service as a whole. The following options appraisal process is designed particularly for those considering split-site services. It would also be suitable for considering a site for all archive services. The process is based upon an analysis of multiple criteria; a cost-benefit analysis alone is insufficient as the risks to the archive collection need to be considered.

3.2 Options appraisal

Options appraisal is a decision making tool which can aid the process of considering options by:

- identifying objectives
- identifying the different ways in which they can be achieved
- examining all the major factors before taking a decision

Identifying objectives should include an examination of the needs of your community (as defined in Archive Service Accreditation, for example, governing body or users). This will help you to consider the shape of the service you want to achieve. It will also ensure that shape of the service influences the choice of site, rather than the site influencing the design of the service.

Effective option appraisal will help to answer three important questions:

- Have all the relevant factors been taken into account in deciding what the project should be?
- Should the project go ahead?
- What is the best way to carry out a project?
The scale and nature of a project will influence the level of detail that needs to be built into the appraisal, but there are a number of steps which are essential:

1. Set clear objectives - what are you hoping to achieve?

This enables you to decide on the different options available. Your objectives should be specific, measurable, agreed, realistic and time-dependent. A short, focused list of objectives will become the evaluation criteria for each option. Prioritising your list will let you to decide on weightings if necessary.

2. Generate a range of options

Consider the different ways in which you can achieve the objectives. Start with a wide range of options. Some of these can be ruled out early on in the process to create a shortlist. You should also include a baseline for comparison - usually an option based on doing nothing. This is useful to provide evidence that the project should run. Also include a single site option for comparison.

3. Gather information about each short-listed option

Projects of differing sizes and scopes require varying levels of information to enable you to reach a decision. For most split-site archive projects the information for each option will include:

- how far the option achieves the objectives of the project
- capital expenditure to establish the site for archive storage
- whole-life capital and revenue costs and any projected income
- the staffing requirements/staff time requirements and costs
- how you will manage the facility
- environmental impacts (positive and negative)
- an assessment of the risks to the archive collection
- an assessment of the impact on access to the archive collections, considering DPA and FOI legislation where applicable
- the impact of running the facility on the archive service and its efficiency

1 There is a suggested detailed methodology at Appendix 2 below
Be sure to gather enough information on each option to reach a decision. To gain a complete view of the costs of a split-site archive service, include the costs in both time and money of running a document retrieval service and the ongoing maintenance costs of the site. For more information about whole-life costing for archives see section 6.2 PD5454 Guide for the storage and exhibition of archival materials.

4. Evaluate the options

Evaluate each of the shortlisted options against the project objectives. List the options in a matrix and score how far each option meets each objective. Assign each objective a weighting factor, based upon its relative priority to the assessment. This helps to ensure that the most important objectives have the most impact on the result of the appraisal. Multiply the weighting factor against the score for each objective. Your matrix may look something like this:

<table>
<thead>
<tr>
<th>Objective 1: Provide archive storage that meets PD5454</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighting factor</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Score</td>
<td>8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Weighted Score</td>
<td>40</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Objective 2: Provide additional storage for 25 years expansion</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Score</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Weighted Score</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Objective 3: Reduce rental costs</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Score</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Weighted Score</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Totals</td>
<td>18</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

Figure 1 A weighted analysis of the options against the objectives of the project

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2 Based upon the table in: Finding the Right Solution A guide to option appraisal (Department for Education and Skills, May 2002)
Combined with the information gathered about the options, the weighted scores will provide the information necessary to compare each option against the project objectives and each other.

5. Bring together your options appraisal

Create your options appraisal for decision makers. This may combine a description of each option, the weighted analysis of the options against the objectives of the project and an assessment of the risks to the collection arising from each option.

6. Consider which is the most appropriate option

The options appraisal process will provide a framework for highlighting, assessing and analysing the options for your split-site archive service and will help you to choose between the options.
4 Assessing the risks to archive collections

Decisions on instigating or continuing a split-site archive service can only be made after considering the impact of such decisions on the service and the archive collections. This section deals with risks to the collections (service considerations are dealt with above).

Different storage sites and arrangements present different risks to the archive collection. A risk assessment will evaluate the size of every risk affecting the archive collection. Risk management goes further, planning the use of resources to minimize the risks.

4.1 Risk assessment methodology

Start by bringing together a group of experts to create the risk assessment and management plan. Your experts should include archive and conservation staff and also emergency planning staff, building managers and fire brigade.

A useful method is to look at each option or site being considered and assess the risks from each of the ten agents of deterioration:

1. physical forces - ranging from earthquake to transportation and handling damage
2. fire
3. water
4. criminals - internal and external
5. pests - inspect, vermin, mould
6. contamination - chemical agents from the environment
7. light and radiation - including ultraviolet and visible light
8. incorrect temperature - including variations
9. incorrect relative humidity - including variations
10. custodial neglect

Of these risks a number may have sub-agents (for example water: flooding and plumbing faults). For each risk you must assess the likelihood of the risk occurring within a specified time period and the impact on the collection if the risk should occur.

You should also assess each site for the risks described in Section 5 of PD5454:2012 Guide for the storage and exhibition of archival materials. PD5454 describes the hazards and security
considerations to take into consideration when selecting a site for a storage repository. Additionally it describes a number of types of sites which would be unsuitable for an archive repository and a variety of methods to tackle these risks.

A suggested simple risk register format\(^3\) is:

\[\begin{array}{cccccc}
\text{Risk reference number} & \text{Agent of deterioration/Service risk} & \text{Sub agent/risk} & \text{Likelihood} & \text{Impact} & \text{Risk rating} \\
\text{The likelihood of a risk occurring within a 25 year period}\(^1\), where 1=Low and 5=High & \text{The impact of the risk should occur, where 1=Limited and 5=Catastrophic} & \\
\end{array}\]

\(^3\) Format based upon community risk registers used in local government emergency planning
Once you have assessed the impact and likelihood scores, plot them onto a matrix, which gives the overall risk rating:

### Key
- **Very High**
- **High**
- **Medium**
- **Low**

In some circumstances organisations could be encouraged to accept a certain level of risk. Consider the **risk appetite** of an organisation carefully. The Treasury Orange Book includes a definition of risk appetite:

‘The amount of risk that an organisation is prepared to accept, tolerate, or be exposed to at any point in time.’
You can also use the table to discuss which risks can be tolerated to achieve the objectives of the building. This toleration of risks should always be agreed by the governing body of the archive service.

In general the risk appetite for archive collections should be as low as reasonably practicable. (ALARP)⁴

### 4.2 Quantifying the risks

In some instances you need a more detailed quantification of the risks to a collection. A useful method of achieving this was first developed by Waller at the Canadian Museum of Nature⁵. Subsequently The National Archives used it to assess preservation risks⁶ and a Portuguese archive used it to compare archive storage rooms⁷. The guidance in Appendix 2 is based on the Waller model and aims to compare the magnitude of specific risks for the same archive collections, located in different sites.

Whichever method of risk assessment you use, the results should feed into the wider appraisal of options for managing a split-site archive service (outlined above).

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⁴ Health and Safety Executive: Reasonably practicable involves weighing a risk against the trouble, time and money needed to control it [www.hse.gov.uk/comah/alarp.htm](http://www.hse.gov.uk/comah/alarp.htm)
⁵ R Waller, Cultural property risk analysis model: development and application to preventive conservation at the Canadian Museum of Nature (Göteborg Studies in Conservation, Acta Univ Gothoburgensis 2003)
5 Managing the risks of a split-site service

5.1 Identifying the storage requirements

The main means of managing risks to the collections is to specify collection storage sufficiently well. An off site store should hold archive collections in the same high-quality storage conditions as the main archive service site. This will ensure management of most of the physical risks which you have quantified.

In drawing up a specification for a building consider the following standards and guidance:

1. PAS198:2012 Specifications for managing environmental conditions for cultural collections. This describes the temperature, relative humidity, light and pollution levels that should be specified in an archival storage building.

2. PD5454:2012 Guide for the storage and exhibition of archival materials. This provides guidance on the storage repository site, construction, fire protection and prevention and storage environment and packaging materials.

3. Chris Kitching, Archive Buildings in the UK 1993-2005. This includes descriptions and plans of a number of buildings built in this period.

The building should be designed to allow for 20 years expansion space. The guidance for Archive Service Accreditation provides support for calculating expansion space (2013 Requirement 1.4).

5.2 Selecting material to be stored off site

Archive services have generally followed similar rules in deciding which material should be stored off site, prioritising public access and limiting the transfer of archives between sites. These considerations often mean that materials stored off site are:

- collections which have restricted access, for example items closed for a number of years (some items might still need to be accessible if covered by the Freedom of Information Act (FOI))
Assessing and managing the risks of split-site archive services

- collections which have been digitised or microfilmed for access (and are available in surrogate form)
- collections which are in an uncatalogued condition and therefore inaccessible to users (remember in this case items will still need to be accessible if covered by FOI)
- collections which are of a highly specialised nature and therefore have relatively low levels of use

This is not a recommended list of rules for deciding which material should be stored off site.

Archive services should assess which rules would be most appropriate for the scale and purpose of their service. Audit collections and create a series of criteria for suitability for off site storage.

5.3 Managing the risks

Having created the risk assessment for an off site store you can create a risk management register which shows how you will manage the identified risks.

<table>
<thead>
<tr>
<th>Risk reference number</th>
<th>Agent of deterioration/Service risk</th>
<th>Sub agent/risk</th>
<th>Likelihood</th>
<th>Impact</th>
<th>Risk rating</th>
<th>Measures in place to manage the risk</th>
<th>Responsible staff member</th>
<th>Review date</th>
</tr>
</thead>
</table>

Keep this under review regularly and use it to manage any changes at the site or in operating procedures.

5.4 Recommendations for lessening the impact of the potential risks

Archive services operating split-site services identified a number of risks to the collections which are outlined in the case studies in the appendices. To lessen these risks, the site chosen for a split-site service should:

- house complementary services such as records management or museum collection stores - these are more likely to require similar levels of security and a similar storage
environment and their staff will be more aware of the risks to the archive collections and likely to identify problems early

- be staffed on a daily basis
- contain high quality staff offices and resources
- be close to the main site
- be self contained to ensure security
- have well planned and high quality storage which will remove as many risks to the collection as possible
- have adequate insurance cover which includes cover for the transfer of archive materials on a regular basis

6 Practicalities

6.1 Moving archival material

If archival material is to be held off site you must consider how to transport documents to and from the store. The procedures for moving material should ensure that items are not damaged during transit and arrive at their intended destination. Each time a document is moved out of a building it is placed at risk of damage or complete destruction. This section attempts to reduce the risk of this occurring.

Transport

Inevitably, the movement of archival material requires the use of an appropriately sized vehicle. This would usually be in the form of a van, preferably fitted with equipment designed to keep items secure during transit. The size of the vehicle will depend on the nature of material held in the store, but it should be large enough to transport any item safely.

Avoid transporting material in staff cars as this represents an insurance risk and may increase the potential damage to items.

Some services have the use of their own vehicle, or they may have access to a van belonging to their governing body. Either of these options gives a certain degree of flexibility and may mitigate some of the potential risks incurred from transporting archival material. However, for some services this may not be an option and they might have to rely upon a courier company. This option may be particularly relevant to services that retain infrequently used material in their store.
When considering buying in the services of a courier company, it may be advisable to consider the following points:

- Have they had experience of handling archival material before?
- Are they recommended by another archive service?
- Is training needed in manual handling of archival material?
- Do they have appropriate transport for outsize and/or fragile material?
- Who is liable for the material in transit?
- Can the courier company provide evidence of appropriate security vetting of staff?
- What is their pricing structure?
- Is there a costly monthly fee for a service you may only use three or four times a year?

**Handling**

We recommend that appropriately trained archival staff undertake retrieving and packing of items and their subsequent unpacking and reshelving. This should help to negate the handling risks to both staff and archives. It may also be advisable to undertake a formal manual handling assessment of the processes involved in moving material between the store and the access site.

There must be appropriate equipment available in the store for the safe movement of archival items, including steps, ladders and trolleys. These should be in good working order and of adequate length/size to retrieve and move material safely. If the store is on different levels, some form of lift should be installed so that material does not have to be transported up and down stairs manually. If heavy and unwieldy items are to be transported between sites regularly then it is advisable that the van is also equipped with some form of lifting equipment.

**Packing**

Archives in the store should already be packaged appropriately according to PD5454. However, you need to pack them into containers before you can move them. It is important that any containers used for transporting archives are adequate for the task. They should be large enough to accommodate their intended contents comfortably and robust enough to offer protection from
damage during transit. To further protect documents and reduce vibration, line containers with bubble-wrap; pack out any excess space in the container with additional bubble-wrap.

Outsized material requires more specialist equipment to transport it safely between sites. If this equipment, such as bespoke carry cases, is not available, give serious consideration to whether they should be held off site.

For fragile or delicate material, it may be preferable to provide users with digital surrogates, rather than risk potentially damaging items in transit.

Archival staff should undertake retrieval, packing and reshelving of archival items. If separate personnel (such as porters or couriers) are involved in transporting the material, put procedures in place so that enough time is allocated for staff to retrieve and pack items before collection. Label items to be collected and/or returned by a third party.

For a more detailed guide to packing and moving archives see Packing and Moving Library and Archive Collections (Preservation Advisory Centre (PAC), January 2005). This leaflet provides guidance on best practice for conducting the move of archival collections and includes a useful section on how to pack a variety of archival items appropriately.

**Documentation**

The increased risk of losing or misplacing items when storing material off site means that the movement of material needs to be documented thoroughly. The system for tracking items may vary from service to service, but at the very least documentation should exist to cover: when items are requested and for whom; when they are retrieved and by whom; and when they are returned and by whom.

If a third party is involved in the transportation of material, this too needs to be documented. In addition, label containers and list the contents. It is also advisable to maintain a signing in/out book when staff enter and leave the store.
7 Conclusion

A split-site archive service brings greater risk to the collections, additional building management tasks for staff and more restrictions on access than a single site service.

By considering the impact of a split-site service during an in depth options appraisal, archive services will:

- be aware of the risks
- be able to mitigate the risks
- be able to see clearly the relative merits and problems of each site
- understand the ongoing costs associated with different site options

If a split-site service is assessed as the best option, rigorous plans and procedures are essential to reduce the risk and impact of the split-site provision.
Appendix 1: Case studies on assessing and managing split-site services

The Keep, East Sussex - Assessing and rejecting a split-site service

Background

In December 2008 a bid to assist with funding for a new partnership archive building for East Sussex, Brighton & Hove and the University of Sussex, called The Keep, was rejected by the Heritage Lottery Fund (HLF). On returning to assess their options the project board/partners were determined to move away from their current split-sites because:

• Visits were made to off site stores only once or twice a week and the public had to wait some time for access to items

• These visits used staff time poorly and it wasn’t good for documents to be subjected to the risks of travelling

• The main public access site and storage was not up to standard and it was assessed as more economical to solve access and storage problems at the same time

How the option of a split-site service was assessed

When the HLF application was rejected, the project board returned to assess how much of the original project they could deliver without the HLF funding. The current main archival storage areas were below standard and making no change was not an option; that would continue to put archives at risk and jeopardise their Place of Deposit status and ability to accept collections under the Acceptance in Lieu of Tax scheme.

The project board examined a variety of options, aiming to reduce the cost of the project to their new budget - for example: reducing the size of some rooms; changing the layout; carrying out a value engineering exercise with the contractor and architect and commencing building work as soon as possible to take advantage of the downturn in the economy.

They considered phasing the building of repositories and compared the cost of building the repositories now, with retaining the off site stores for a number of years and building an extension to the main site at a later site. The conclusion was that phasing the building of
repositories was not prudent financially, due to the expected future rise in building costs. In addition, the existing off site store was some way distant from the main site and running a retrieval service was not an efficient use of staff time or low risk to the archives themselves.

The preferred solution was to retain all of the original storage capacity and reduce some room sizes and specifications, whilst continuing to design to BS5454. In addition the project removed the fire suppression system, while designing the building to be low fire risk and allowing for suppression to be added later if required.

The new plan for The Keep will have all its storage on site.

**Local Authority Record Office - Running a split-site service**

**Background**

The majority of the Record Office’s holdings are distributed between a number of out stores with the remainder being held on the main site. The sites are of varying quality and include storage in a nearby school and a converted warehouse ten miles away. Rarely used material - equating to approximately ten percent of its holdings - is stored in a Records Management store 25 miles away.

The storage facilities on the main site and at the school are of poor quality, with continued issues surrounding temperature control and damp. In contrast, the converted warehouse provides compliant storage and is approved by The National Archives to hold Public Records.

However, having assessed the transportation risks to some material, the Record Office recommended that heavily used items and material which would suffer during transit, such as maps and plans, should remain on site.

Currently the Record Office uses a van to collect material from the out stores once a week.

**Managing the out store service**

Once a week two members of the archives staff visit to collect material. They usually drive to the relevant out stores in the archive service’s van and they collect material during the course of the day. Double staffing has been introduced recently because of the amount of material being requested and handled. In addition double staffing has addressed issues surrounding lone
working. (Previously this was managed through various means, including in/out boards and telephoning the main site when they enter and leave each out store.)

The difference in quality between the two main out stores is substantial. This can make managing some off site material quite difficult. In particular, the storage located in one of the local schools is difficult to access and it has poor parking provision. There are issues of child security when Record Office staff are on site collecting documents. In addition, the store is on different levels and the material has to be transported manually on stairs because there is no lift. The environmental conditions are poor and there are few staff facilities other than toilets.

The site is also vulnerable to small scale acts of vandalism, such as window breakages. However, no one unauthorised has entered the building and there has never been any damage to the collections.

The environmentally compliant warehouse storage facility is sited on an industrial estate. Although ten miles from the main site it is easily accessible and has convenient parking. In addition, the store is all on one level and material can be transferred easily from the shelves into the van. It is staffed by project workers and has a fully equipped staff office, internet access and ample room to undertake work on the collections. The lack of adequate space at the main site means that much of the cataloguing work is undertaken here.

All the out stores have monitored alarms for both fire and security. Insurance for all the sites is part of the County Council’s global insurance policy and there is additional insurance for compensation in case of damage. There is training in handling to try and combat some of the risks associated with moving archival material regularly. During stock-taking, specialists come on site to provide staff with tailor-made training in manual handling to suit their specific needs.

Decisions surrounding where collections are to be stored are based on a number of factors, including usage, the potential for damage during transit and depositor expectations. Large and/or planned acquisitions are usually delivered straight to the out store.

**Benefits and challenges of managing a split-site service**

**Benefits**

- having sufficient storage and additional working space
Assessing and managing the risks of split-site archive services

Challenges

- undertaking visits to the out store takes up valuable staff time
- having staff split between two sites can create communication problems where staff failing to integrate properly (particularly when only one site is public-facing - staff can feel less involved and may fail to appreciate the work/difficulties of their colleagues working at another site)
- users are limited to the amount of material they are able to order at any one time as there is a restricted amount of space in the van
- users have to be made aware of waiting times
- having 70% of storage off site is inconvenient for both staff and users - staff feel that that they are not providing a good service to their users
- users have to wait a week for material if their request was placed just after a delivery and they have to make a second visit if the request was placed in person - they get frustrated if they are not aware of waiting times or off site storage before they arrive
- although there is little impact on paid searches, there is a more appreciable impact on FOI/DPA enquiries. Material relevant to these types of searches is held ten miles away, making answering these enquiries difficult and time-consuming

Business archive - Moving to a split-site service

Background

The original city centre building housing this business archive was part of a major redevelopment programme and the new plans did not have capacity to house the archive on the main site. A number of other complementary services required storage which was beyond the site’s capacity. In addition, secure business continuity facilities were required away from the main site.

Therefore the archive storage, post room and business continuity facilities were provided in a separate building 15 minutes away from the main site. The building already had high levels of security and was upgraded to include environmental controls and information technology. There are no reading room facilities on site and the archive store is self-contained and secure within the larger building.
Managing the split-site service

The archive service needed to change the way it works to accommodate the new split site. There is a small workroom and digitisation facilities at the off site store and there is always one member of staff at the off site store during working hours. This member of archive staff retrieves any requested items and post room staff transport them in a secured crate. On reaching the main business site the archives are stored in a small on-site strong room, together with some of the most valuable and accessed material. This on site strong room also has temperature and humidity controls.

The problems of lone working are managed through a system of checks. Staff sign in and out of the off site store and there are telephones throughout the store. Security staff patrol when archive staff are at the site and archive staff also ensure that they telephone the main site during the day.

The new retrieval system required planning and some staff time to implement. In addition a new disaster plan was created for the new site.

Benefits and challenges of managing a split-site service

Benefits

- The benefits of having a presence on the main HQ site are that the archive has increased visibility and therefore prestige within the business
- The archive retains its connections with the company by having its storage in a company building

Challenges

- Manning the off site store has impacted on the service provided
- Researchers need to plan ahead before they visit
- The organisation cannot be as spontaneous in using its archives
- Managing the off site store and retrieval system requires planning and discipline
**National Museum - Moving away from a split site service**

**Background**

In 2011 a substantial new wing of a National Museum was opened encompassing a new purpose-built library and archive. The development enabled more of the museum’s archive and library collections to be housed on the main site for the first time. Prior to the expansion of the museum, the archive and library collections were housed on the main site and in three off site storage facilities within a five mile perimeter of the museum.

A driving force behind the move away from a split-site service was the desire to improve access to the museum’s collections. A digitisation feasibility report produced in-house showed that it would be too costly to digitise the entire archive and so it was decided that access should be improved by moving the museum’s frequently used archival collections, including its public-records, on site. The development of the new wing provided the ideal opportunity to meet this objective.

Following completion of the building there has been a substantial improvement in access with an increase in users, usage and enquiries. The archives are now stored in standards-compliant facilities and staff can respond more spontaneously to user demands. The changes have also provided the impetus to create an online ordering system. Some infrequently used archival material is still held in out stores, but reorganisation following the move has made more efficient use of the existing off site storage.

**Managing the split-site service**

Prior to the completion of the new wing, archival material were stored in off site storage facilities within a five mile perimeter of the museum. Once a request had been received qualified Archives and Library staff had to travel to the stores, by public transport or museum vehicle, retrieve the items and place them in rolling cages ready for collection by the Museum’s Art Object Handlers a couple of days later. Returned items were unpacked and reshelved by Archives and Library staff on their next visit.

In order to manage the risk of housing material off site - for collections and staff - the out stores were maintained by on site store managers and policies regarding lone working, conservation and manual handling were in place.
Assessing and managing the risks of split-site archive services

Benefits and challenges of managing a split-site service

Benefits

- having sufficient storage

Challenges

- access to the museum’s archival collections was compromised, with users having to request material some days in advance of their visit
- although the off site storage facilities were within a file mile radius, the London transport network meant that staff spent a significant amount of time travelling to retrieve items
- the costs involved in having to collect items and reimburse staff travel expenses had an impact on the library’s budget
- the out stores had few staff office facilities, with intermittent wi-fi and sometimes limited access to on site computers, thereby restricting their use

A Local History Centre- Moving to a split-site service

Background

In 2011 a local Record Office combined with the local studies library to become a History Centre, in the central library. As a result of this move the majority of the collection is stored off site with on site storage being limited to a small strong room.

How the option of a split-site service was assessed

The change was the result of a number of options which were assessed over a number of years. These appraisals looked at the benefits and challenges of each option and their relative costs to implement.

The chosen option was to have public access at the central library with a small strong room and the main store combined with the museum store. This option had benefits for the visibility of the public service and for improved storage for collections. The management of the split site was subjected to examination by the audit department and insurance specialists.
Managing the split-site service

Instigating the logistics of a split-site service took more planning than staff initially expected. Access to archives held off site is subject to a 24 hour notice period. Museum staff retrieve the items from the archive store and the library van which visits the site most days transports them. Library staff return items to the site and History Centre staff replace them in their boxes by on their next visit.

Benefits and challenges of managing a split-site service

Benefits

- The new service set-up allowed the service to locate to a higher profile location
- The new strong rooms are of an improved quality

Challenges

- Service users need to give 24 hours notice to access the majority of collections
- Control of documents must be very tight - there are many more occasions where items can be lost or damaged
- The logistics of the retrieval system needs planning and ongoing management

A County Archive Service - Running a split-site service

Background

A County Archive Service runs three sites, each of which has a public access site. They also have an out store in the county town which does not have public access. This out store is near to the main archive office, in an adapted industrial warehouse on a council site, which is shared with the council’s records management service. The archive storage is within a climate controlled storage pod within the warehouse and contains only closed, uncatalogued or rarely used items.

Managing the out store service

Although the records management unit is manned during working hours, the archives storage is not. Archive staff visit three times a week to make formal building and environmental checks.
Documents at the out store are subject to a 48 hour notice period. Retrievals are made by archive staff travelling in their own cars.

The service has found that managing staff across three sites and an out store is inefficient. In the long term the service is seeking to consolidate their resources across a smaller number of sites.

Whilst the service does flag up where documents need to be ordered in advance from the out store, there are occasions when archive service users who have not booked in advance can be disappointed to find that documents are not immediately available.

Benefits and challenges of managing the split-site service

Benefits

- There are a number of benefits of sharing a storage site with records management services
  - reduction of overall costs in security and building
  - the problem of lone working for archive staff was removed because the site was also manned by records management staff

Challenges

- It takes up staff time to retrieve items
- The site needs to be visited regularly to check on security and conditions
- Service users need to give 48 hours notice to access the collections
Appendix 2: Quantifying the risk - A methodology

For each site, the magnitude of the risk (MR) is calculated. The magnitude of risk (MR) is the product of four variables:

1. Fractional susceptible (FS) - how much of the collection would be susceptible to this risk

FS=1 because we are estimating the magnitude of the specific risks affecting the same collection held in two different buildings. If one of the options being considered was to store the collection across two sites then this figure would change according to the percentage stored at each site.

2. Loss of value (LV) - reduction in the value of a collection for its intended purposes

Measured between 0 and 1, this is a relative status according to importance, usefulness or quality. In its study The National Archives surveyed users to ascertain which aspects of a record were most valued by users. Users valued the information in a record, but placed intrinsic value on the records. The National Archives assigned values to different types of material as follows:

<table>
<thead>
<tr>
<th>Assignment values</th>
<th>Informational</th>
<th>Material</th>
<th>Cultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paper and parchment</td>
<td>50%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Microfilm (archival masters)</td>
<td>80%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

For example, water damage might result in a loss of material and cultural value, but may not affect the informational value if the text remains clear. The loss of value would be less than 50% that is, <0.5

3. Probability (P) - the likelihood of this occurring within the next 100 years

Measured between 0 and 1 - here local community risk registers and the experience of team members

4. Extent (E) – extent to which damage would occur over the century

To reach the magnitude of risk (MR) to the collection the formula is \( MR = FS \times LV \times P \times E \)
A simple table could calculate the risks

<table>
<thead>
<tr>
<th>Agent of deterioration/risk</th>
<th>Sub-agent/risk</th>
<th>Fraction susceptible (FS)</th>
<th>Loss in value (LV)</th>
<th>Probability (P)</th>
<th>Extent (E)</th>
<th>Magnitude of Risk (MR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical forces</td>
<td>Seismic event</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Risk of toppled shelves</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incorrect storage (over and undercrowded)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incorrect handling</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical forces</td>
<td>Damage during transportation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Destruction in crash during transportation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire</td>
<td>Lack of fire suppression system</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>External Flood</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal water ingress for example roof leaks or plumbing faults</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rising damp</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criminals</td>
<td>Theft - burglary</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theft - staff</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vandalism</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theft during transportation</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Agent of deterioration/risk</td>
<td>Sub-agent/risk</td>
<td>Fraction susceptible (FS)</td>
<td>Loss in value (LV)</td>
<td>Probability (P)</td>
<td>Extent (E)</td>
<td>Magnitude of Risk (MR)</td>
</tr>
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<td>------------------------</td>
</tr>
<tr>
<td>Pests</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminants</td>
<td>Fall out from nearby buildings</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light and radiation</td>
<td>Windows in the storage area</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incorrect temperature and relative humidity (RH)</td>
<td>Mould development</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Damage caused by RH and Temperature fluctuations</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Custodial neglect</td>
<td>Misplacement of items</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collection abandonment</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Comparing options

The simple risk register and matrix described above could be used to compare the risks to archive collections on two sites/potential sites. The detailed quantification method could also be conveyed as:

![Risk Comparison Chart]

**Key**
- Dark Green: Damage caused by unstable RH
- Light Green: Damage by incorrect storage
- Yellow: Damage during transfer of archives
- Red: Loss by theft or vandalism

*Assessing and managing the risks of split-site archive services*

Last updated June 2013
Appendix 3: Other sources of information


ARMA International, Guideline for evaluating off site records storage facilities, 2007

ARMA International Standards, Records center operations, 3rd ed


ARMA International, Guideline for outsourcing records storage to the Cloud, 2010

Michele F Pacifico and Thomas P Wilsted, Archival and special collections facilities: Guidelines for archivists, librarians, architects, and engineers

Emma Dadson, Emergency planning and response for libraries, archives and museums

Health and Safety Executive Health and safety guidance on the risks of lone working

HM Treasury The Orange Book, Management of risk - principles and concepts

R Waller, Cultural property risk analysis model: development and application to preventive conservation at the Canadian Museum of Nature, Göteborg studies in conservation, Acta Univ Gothoburgensis 2003

Jiscinfonet, Risk Management

John Webster ed, Where shall we put it? Spotlight on collection storage issues Papers given at the National Preservation Office annual conference (held at the British Library, 4 October 2004)

The National Archives, Identifying and specifying requirements for off site storage of physical records January 2009

The National Archives, Risk Assessment Handbook 2011

Risk awareness profiling tool (RAPT)