

# **Volume 2**

## **A best practice model for conservation and preservation assessment plans for cultural collections**

**A Heritage Collections Council project**

*undertaken by*

**Artlab Australia**

*in partnership with*

**the History Trust of South Australia**

*and the*

**State Library of New South Wales**

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# **THANK YOU**

Numerous people and organisations have contributed willingly to this project from within Australia and internationally.

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## 1. Introduction

A conservation assessment plan should be the first step in the process of conserving objects and collections for the future. Ideally, the conservation plan is used by those with responsibilities for objects and/or collections to help organisational planning. The plan needs to address methodically, all issues affecting the conservation of an object or collection including threats or risks to the object or collection. This should result in a prioritised set of recommendations or actions and suggested strategies for achieving them.

A need for a national approach to the preparation of conservation assessment plans has arisen over the last twenty years. The level of conservation activity in Australia has steadily increased, as has the trend to formal planning processes. This has resulted in more conservation assessment plans being produced each year by an increasing number of conservators and other heritage workers.

The lack of an agreed approach has meant that various processes have been used. They have varied in format and layout, scope and content, cost and methodology. Some approaches have been very limited in terms of the number of factors considered in the development of plans while others have been overly rigorous for their contexts.

The variety of approaches often has sent conflicting messages to both funding agencies and heritage custodians about conservation priorities. It is very difficult to compare plans for different organisations and collections and this has hindered the coordinated effort to conserve Australia's movable cultural heritage.

The model has been developed to provide a guide for undertaking conservation assessments. Perhaps in the future the model will form the base of an industry standard.

## 2. Conservation Assessment Planning and Risk Analysis

A fundamental issues in conservation assessment planning is evaluation of the risk of loss or deterioration of an object or collection. Risk analysis will inform the custodian about what factors are putting the object or collection at risk and will strongly influence strategies for the management of collections. For example a very low probability event that would cause significant damage might be assigned a higher priority than a high probability event that would cause negligible damage.

The process of evaluating risk and determining strategies for risk minimisation is called risk management. Risk management is a well-developed activity and is covered by an Australian Standard (*AS/NZS 4360 : 1995 - Risk Management*). A conservation assessment planning process should follow the principles outlined in the Standard.

The concept of risk is straightforward. **Risk is the probability of an event occurring multiplied by the consequence of the event.** In practice, risk is evaluated by estimating the probability of an event (eg high, medium, low) and estimating the consequence (eg high, medium, low) and contrasting these. In this case a high/high result is the largest risk and a low/low result is the lowest risk.

The application of this concept in conservation assessment planning is important. The recommendations in the plan will form the basis for managing the conservation of the collection. By evaluating risks the recommendations can be prioritised to match resources to areas of greatest risk in order to manage these risks.

- High risks can be minimised by changing some element of the environment, such as improved maintenance, improved storage, building changes and staff training.
- Addressing other risks can be postponed because their consequences are either less likely or less severe.
- Some risks will not be treated because their probability is extremely low, of low consequence or can be dealt with by appropriate preparation.

To elaborate further, *AS/NZS 4360* organises the process of risk management into six stages:

1. establishing the context
2. identifying risks
3. analysing risks
4. assessing risks
5. treating risks
6. monitoring and reviewing risks

The six stages ideally form a cyclical process where the review stage leads you back to re-evaluate the environment, refine changes, implement new programs and identify new hazards.

### **Establishing the context**

Before beginning the risk assessment process, it is important to become familiar with the organisation and its wider environment. If the strengths and weaknesses, the policies, goals and objectives, and the way the organisation is run are known, then there will be a useful background to work from. The organisation's relationships with the surrounding community and the implications of failing to achieve its conservation objectives may provide valuable information in the analysis.

The above information will help to sort priorities because it will provide a background for determining what kind of changes are feasible and which risks the organisation is willing to accept and then prepare for.

The other part of this activity is to define the elements against which risks will be assessed. This could include risks to income, building structure, collections' integrity, public safety/liability, as well as intangibles such as reputation and staff morale. In a conservation assessment these other elements are only relevant if they impact on the conservation of the collection. It is in this stage of the risk assessment that the significance of the objects of collections is introduced into the analysis.

The level of detail of the risk assessment process will be an important issue to resolve. Each organisation has its own limits of time and money available to spend on this process and knowing this will help the organisation to choose the most important aspects to concentrate on.

### **Identification**

This actually consists of making a list of likely problems which would pose a risk to the collection being assessed and determining the cause of such problems.

The more information you have at this stage the more comprehensive will be the list of events and causes. Local knowledge of natural events, organisational records, projections of different scenarios and other observations can be used to be both imaginative and realistic about the risks.

### **Analysis**

This is often the most complicated step. The aim of analysing the risks is to predict the likelihood of their occurrence and magnitude of consequence.

This can be a quantitative estimate. Statistics of natural events such as rainfall, flood patterns, bushfires and high tides, can help in the predictions of events. Records of past building weaknesses should be consulted, seasonal events such as gutters filling with leaves, or irregular events such as birds dying and blocking drains, can all be used to make quantitative predictions.

Other risks - for example, the potential of particular exhibition content causing political grievances leading to vandalism - can be identified but cannot be quantified and in these cases, research, intuition, and guessing could all be used to predict the likelihood of risk. In practice, it is unlikely that a truly quantitative analysis could be applied to a museum situation. It is more appropriate to a closed manufacturing or scientific process in which all steps could be controlled and predicted. Nevertheless an approach which estimates risk is still very valuable.

### **Assessment**

The assessment is a process of comparing probabilities of events against their consequences and then sorting them into a priority order.

The importance of determining the significance of object becomes evident at this stage since the loss of significant items will have a bigger impact on a museum than the loss of much less significant items.

The depth of the assessment is dependent of the level to which the probabilities and consequence have been quantified. In major assessments it might be necessary to have relevant experts, such as engineers, evaluate some risks. Nevertheless, even a brief overview based on experienced judgement provides a useful framework for developing the recommendations.

### **Treatment**

*Treatment* covers all those processes, which are aimed at managing the risk. In the context of a conservation assessment plan, the recommendations developed should offer practical solutions to reducing risk to the collection.

Implementation of recommendations or undertaking risk *treatments* are the responsibility of the museum.

In the most general terms, the *treatment* options are:

- avoiding the risk by not proceeding with the activity
- accepting the risk and organising resources to deal with the consequences
- reducing the likelihood of the risk occurring
- reducing the consequences if the risk does happen
- transferring the risk, eg with insurance, partnerships (where the risk is shared)

This last option may not be appropriate in the museum context since the collections may be unique and irreplaceable.

In choosing the ways to treat risks, the expense of the *treatment* should be weighed up against the cost of the consequences. In museums, the costs are not only financial. Loss of unique heritage has intangible as well as financial cost. Nevertheless, excessive *treatment* or inappropriate *treatment* of risk is cost without benefit, so the nature and extent of *treatment* require experienced judgement.

Finally, any remaining risks should be identified. If there are such risks, a further decision needs to be made about whether to accept the risk or repeat risk processes.

### **Continuous monitoring and review**

Deterioration continues, change always occurs. Review is essential to maintain the effectiveness of the risk management process. Information to deal with hazards if they do occur must remain current and relevant.

The frequency of review will depend on the severity of the consequences of the risk events and the budget allocated to maintaining the risk management program.

It should not be assumed that, once a conservation assessment plan is completed and the recommendations implemented, all threats to the conservation of the collection are forever eliminated. The conservation assessment plan is the start of planned management of the collection and updates of the plan should form part of the management process.

### **Documentation**

As with any well managed process, risk management requires that records are kept that document the risks and what has been done to manage them.

### **3. An overview of the structure for a conservation assessment**

The model is comprehensive covering the essential areas to be addressed in preparing a conservation assessment under widely varying circumstances.

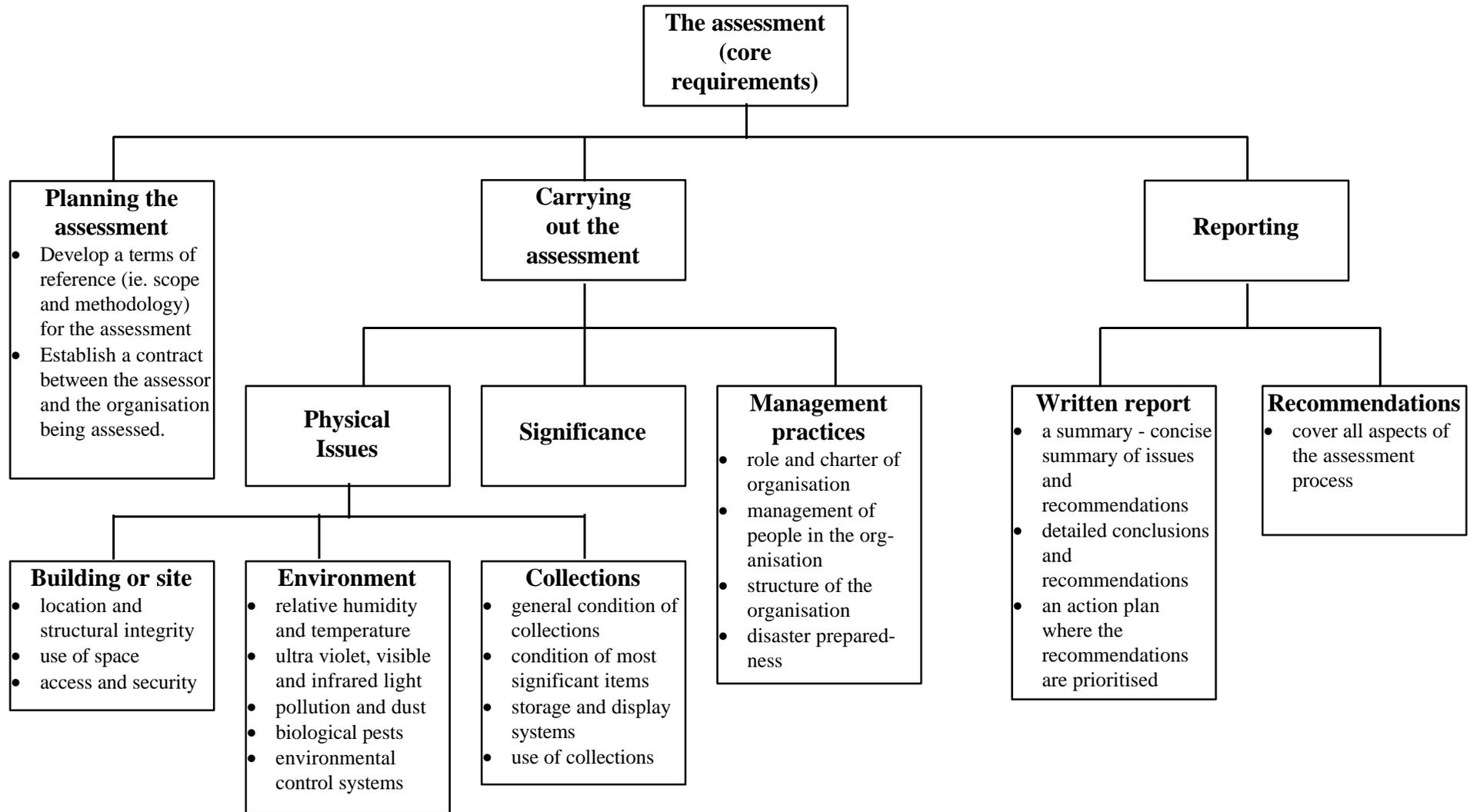
The model is flexible and adaptable. It has three main sections:

- planning the assessment
- carrying out the assessment
- reporting

Within each section there is a number of core areas for investigation (*core requirements*). Regardless of the organisation or collections being assessed, these should be addressed and taken into account.

This is how the process looks:

### 3.1 Overview of the structure for a conservation assessment



This process will be adapted according to the size and resources of museums and collections.

Where we believe that standard methodologies for approaching a key or group of key areas of investigation would be useful for the assessment planning process, we have identified and included them as important components of the model and called them *core methodologies* . These should provide a useful guide for those undertaking assessment planning and include:

- consultation with stakeholders
- risk management assessments

## 4. A model for conservation assessment planning

Conservation assessment planning is a broad ranging process, which needs to:

- accurately describe the condition of items or a collection at a given point in time;
- take into account all the activities, functions and structures within a museum affecting the preservation and care of the collection, and;
- make recommendations for improving the conservation of the collection.

There are *three elements* and several *core methodologies* identified as being critical in developing an assessment plan.

### 4.1 Preliminary planning

#### 4.1.1.1 Core requirement : *Terms of reference*

The *Terms of Reference* is a document, which clearly states the scope and methodology and any other technical issues relevant to the assessment. It may for example define which objects or collections are relevant to the assessment, who should be consulted in the process, what resources are available, and what types of recommendations are expected. It is extremely important to ensure that all parties have the same expectations of the outcomes of the process.

#### 4.1.1.2 Core methodology : *Consultation with stakeholders*

To achieve an effective terms of reference there should be strong ownership of its preparation by all key parties/stakeholders. These might include:

- the museum committee;
- appropriate museum staff/manager(s);
- the consultants(s) who may undertake the work;
- providers of funding

They should consult closely to draw up a mutually agreed document. Wide consultation will help ensure that all stakeholders are comfortable with the outcomes of the assessment and that the museum and its supporters are committed to implementing its recommendations.

#### 4.1.1.1 Core requirement : *Contract*

The *Contract* states the responsibilities and obligations of both parties. It covers the administrative issues such as payments and dispute resolution. A *Contract* may be as simple as an exchange of letters or it may involve a legally drafted

contract. Its importance is that it gives clarity to all parties about their rights and responsibilities. The *Terms of Reference* forms an attachment to the *Contract*.

**4.1.2.2 Core methodology** : *No core methodology specified*

## **4.2 Investigation**

**4.2.1.1. Core requirement** : *Examine physical issues related to the collection environment*

Environments effect collections in many ways. Effective conservation plans examine various environmental factors which influence the condition of the collection evaluated.

To quantify as accurately as possible (within the available budget):

- the range of relative humidity fluctuations and their rates of change;
- light levels including ultraviolet, visible and infrared light;
- levels and types of dust and airborne pollution present in the environment (and their chemical nature);
- levels of activity of biological pests including insects, spiders, mould, fungi, birds and rodents in the collection spaces;
- the type and effectiveness of any environmental control systems;

These factors should be addressed across all areas in the museum, particularly where there are different environments and different collections.

**4.2.1.2 Core methodology** : *No core methodology specified*

**4.2.2.1 Core requirement** : *Examine physical issues related to building or site*

The conservation and preservation of objects or collections also depend on the protection afforded by the building or site in which they are housed. To assess the required level of protection determine:

- the extent to which the building buffers the external environment and provides a more sympathetic environment internally;
- the structural integrity of the building including building services and any potential threat to the collection from building failure;
- the location of the building with respect to possible threats from external sources (eg is the building located in a flood prone area, on a seismic fault line or in a bush fire zone);
- the appropriateness for conservation purposes of the way in which internal spaces are organised and used;
- the accessibility of internal spaces for moving people and objects around the building safely;

- the security of the building for minimising the potential for theft or vandalism both during and after public access times.

**4.2.2.2 Core methodology** : *Risk management assessments. Refer to Appendix 2 on risk management assessment.*

**4.2.3.1 Core Requirement** : *Examine physical issues related to the objects or collections*

The ultimate goal of a conservation assessment plan is to develop strategies to improve the preservation of objects or collections. To achieve this it is necessary to examine and document the current condition of the collection as well as the way it is used and the physical context in which it is located. This will involve the physical examination of individual items covering all types of material within each separate environment. The level of deterioration should be recorded and important deterioration highlighted. Where possible the cause of the deterioration should be identified. (This is especially critical if the cause relates to the collection's current environment).

Storage and display systems and methods should also be assessed and documented as well as how the collection is used and handled for public access and enquiries.

**4.2.3.2 Core methodology** : *No core methodology is specified. However, whatever methodology is applied, issues affecting significant items might be thoroughly addressed and more general information on the collection as a whole gathered and presented.*

**4.2.4.1 Core requirement** : *Determine the significance of objects or collections*

In conservation management the museum's limited resources need to be focused on those objects or collections that have the greatest significance for the museum. A conservation assessment therefore needs to determine which are the most significant objects or collections and to pay particular attention to these items.

The significance of objects or collections might be due to their aesthetic, historic, scientific or social value for past present or future generations. This description of significance derives from the Australia ICOMOS Charter for the *Conservation of Places of Cultural Significance (the Burra Charter)*, the principles of which have been recommended for adoption by the movable heritage community (*Review of existing criteria for assessing significance relevant to movable heritage collections and objects, Australian Heritage Projects and Kylie Winkworth, for Department of Communications and the Arts - AHP/Winkworth Report*)m - see Appendix 1.

- 4.2.4.2 Core methodology** : *No core methodology is specified however the AHP/Winkworth Report suggests an analytical process which is presented in Appendix 1.*
- 4.2.5.1 Core requirement** : *Examine the role and management of the organisation*

The condition of objects also depends on a set of human factors related to the collecting organisation itself. This dependency is both direct (eg if staff are not trained in the safe handling of collections they may damage them during handling) and indirect (eg if the museum does not have a defined acquisitions policy and consequently accepts all donations it may eventually exceed its capacity to conserve them).

An understanding of the organisation will also inform the process of developing conservation recommendations since the recommendations must be practically achievable by the organisation to be of any benefit.

In examining the organisation there are four broad areas about which information should be sought:

- role or charter of the organisation, such as:
  - \* why does the organisation exist?
  - \* what is it trying to achieve?
  - \* what are its future directions?
  - \* is it bound legally (eg constitution, deed of trust) to do certain things?
- the way people in the organisation are managed, such as:
  - \* are people trained appropriately?
  - \* how does the organisation recruit new people?
  - \* how do tasks get distributed?
  - \* how are decisions made?
- the way in which the organisation is administered, such as:
  - \* how are problems with the building detected and repaired?
  - \* are there any maintenance and cleaning schedules?
  - \* is there a documented disaster preparedness plan?
  - \* how are purchases for the museum made?
  - \* how does the organisation acquire funding?
  - \* what is the organisation's budget capacity.
- The organisational structure, such as:
  - \* the staffing structure and the relationship between different areas
  - \* the legal status of the organisation (eg trust, company, act of parliament)

**4.2.5.2 Core methodology** : *No core methodology is specified however the process will require consultation with stakeholders.*

### **4.3 Reporting**

**4.3.1.1 Core requirement** : *Structure of report*

The report must be structured to communicate effectively its content to stakeholders. Very often conservation assessment reports are long and can appear formidable to people with tight schedules. A conservation assessment report should contain an easy-to-find Summary that concisely presents the most pertinent findings and recommendations to enable someone who reads only this section to make decisions about implementing the plan.

The report should draw logical conclusions and make clear recommendations for improving the conservation of the objects or collections. (*See Development of Recommendations*)

**4.3.1.2 Core methodology** : *No core methodology specified*

**4.3.2.1 Core requirement** : *Development of recommendations*

The information gathered in the investigation phase needs to be presented clearly and unambiguously. The principal outcome of the assessment is a set of recommendations to improve the conservation of the objects or collections. Its recommendations should have the following characteristics:

- They should be logically derived from the information gathered and presented in the report. Where assumptions have been made these should be explicitly stated.
- They should be developed in the context of the total organisation's strengths and weaknesses, opportunities and constraints.
- They should be consistent with the Australian Institute for the Conservation of Cultural Material *Code of Ethics*.
- They should be practically achievable for the organisation.
- Where the recommendations are complex or long term, they should be structured into prioritised plans which provide strategies for achieving them.
- Recommendations should be costed or at least indicative cost estimates given.
- Recommendations should be presented in order of priority ranging from the most urgent needs of the most significant parts of the collection through to the least urgent needs of the least significant parts.

**4.3.2.2 Core methodology** : *The recommendations should be developed using the principles of risk management. Refer to Section 2.*

**4.3.3.1 Core requirement** : *Presentation of draft report*

The purpose of a draft report is to give the client the opportunity to examine the recommendations of the assessment and provide feedback. This means that the recommendations when presented in the final report do not come as a surprise to the client. Any contentious issues can be dealt with prior to the preparation of the final report.

This approach will increase the likelihood that the final report is accepted and acted upon by the client.

**4.3.3.2 Core methodology** : *Stakeholder consultation*

Identifying stakeholders in the plan is a crucial part of preparation. Stakeholders are all those people who have an interest in the objects or collections that are the topic of the plan. They may include governments, local communities, owners, donors, sponsors, curators, historians, conservators and sometimes the general public. A checklist should be developed as the first step of the investigation phase to ensure all that stakeholders have been identified. This is most often achieved in close collaboration with the principal client contact person, though it must be the person carrying out the assessment who initiates and drives the process.

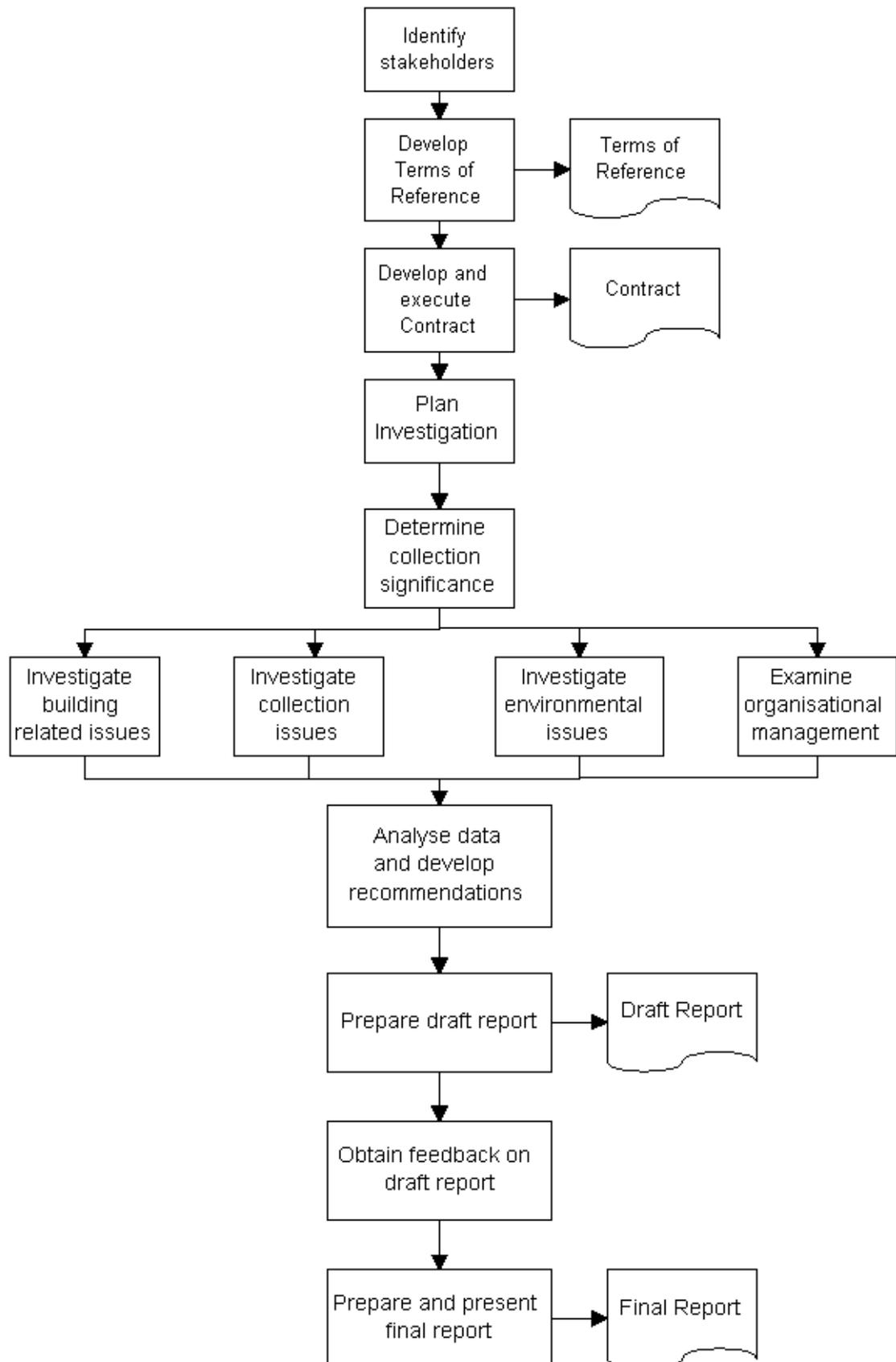
For a plan to be successful, the stakeholders must be consulted and their views expressed in the plan. It is not always possible to accommodate all these views but it should always be indicated that the views have been seriously considered, even if not adopted. To achieve this, a communications plan needs to be developed. In practice, stakeholders are grouped into categories to make the communications plan manageable. Discussion and information gathering could involve:

- one to one interviews;
- focus groups;
- questionnaires;
- tape recorded meetings and interviews;
- e-mail and other forms of written communication.

The approach to communications may be very simple, say for a small community museum or section of a larger museum, or very formal and complex, say for a major public collection. It is recommended that the communications plan and a record of the actual consultative process should be included as an appendix in the final report. This will boost the credibility of the recommendations.

By having a considered approach to consultation the consultant will keep better control over the communications process to ensure that the scope of information required is fully covered, that all views are received without prejudice and that the timing of consultations fits with the progress of the investigation phase.

## 5. Model implementation flowchart



## Appendix 1. Significance analysis suggested by AHP/Winkworth report

	A. Representativeness	B. Rarity	C. Intactness, Condition, Completeness	D. Provenance	E. Interpretive potential	SCORE
1. Historical Significance						
2. Aesthetic Significance						
3. Technical/ Research Significance						
4. Social Significance						

*5.1.1.1.1 These draft criteria help to clarify the degree of significance, especially against comparable items of the same type or category*

### **Suggested Main Criteria:**

1. Historical Significance - An object or collection may be significant for its associations with people, historical themes, processes and events. May include provenance and associations or this may be a comparative criterion.
2. Aesthetic Significance - An object or collection may be significant for its craftsmanship, style, technical excellence, beauty, skill and quality of design and execution.
3. Technical/Research Significance - includes scientific values and technical accomplishment. Objects and collections may be significant for their potential to enhance understanding of our history and environment.
4. Social Significance - Objects and collections held in community esteem, or having social, spiritual, cultural or other bonds that demonstrate community affection, structures, beliefs and cohesion.

### **Suggested Comparative Criteria:**

- A. Representativeness - Collections of objects may be significant as excellent representatives of a particular class or category of material, or representative of an activity, way of life, or theme.
- B. Rarity - An object or collection may be significant as a rare, unusual or particularly fine example of its type. An item or collection may be rare because it is particularly well documented or provenanced. Or it may be rare because it is a singular hand made or crafted object, such as an example of folk art or improvised bush technology.
- C. Intactness, including completeness, structural integrity and the condition of the item or collection - An item of furniture with its original finish will generally be more significant than one that has been restored, other things being equal. A family collection, which is substantially complete and intact, may be more significant than another where only selected items survive. Among other things this criterion helps museums to make judgements about when collections should be retained intact.
- D. Provenance and associations, which may or may not be linked to the historical and technical or research significance of the item - For example, where there are two like manufactured objects, and one is provenanced, it will generally be more significant than the unprovenanced item, assuming they are the same in all other respects. A well-documented item may be a reference point to facilitate the study of other provenanced items.
- E. Interpretive potential - Objects or collections may be significant for their capacity to interpret and demonstrate

aspects of their significance, as well as historical themes, processes and events.