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Green Cape Lighthouse
CONSERVATION MANAGEMENT AND CULTURAL TOURISM PLAN
VOLUME ONE

NSW NATIONAL PARKS AND WILDLIFE SERVICE

NPWS Lighthouses

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VOLUME ONE:
CONSERVATION MANAGEMENT AND CULTURAL TOURISM PLAN

VOLUME TWO:
SUPPLEMENTARY INFORMATION:
CAPE BYRON, SOUTH SOLITARY ISLAND, SMOKY CAPE
SUGARLOAF POINT, POINT STEPHENS, BARRENJOEY
HORNBY, CAPE BAILY, MONTAGUE ISLAND, GREEN CAPE

NSW NATIONAL PARKS AND WILDLIFE SERVICE

NPWS Lighthouses
A New Direction for NPWS Lighthouses

Executive Summary
Author's note:

The original study in 1998-99 was for the group of lighthouses comprised of Cape Byron, South Solitary Island, Smoky Cape, Point Stephens, Barrenjoey, Hornby, Cape Baily, Montague Island, and Green Cape. It recommends an extension to include other NSW Lighthouses if possible.

NPWS are currently reviewing potential for Sugarloaf Point.

Graham Brooks and Associates requested to expand the Conservation Management and Cultural Tourism Plan to include Sugarloaf Point on the basis that it may come over, and once in the Plan, management practices will be standardised.

Therefore the main document has been revised for clarity and long term consistency.

It now reads as though Sugarloaf Point has been formally transferred to NPWS.

GRAHAM BROOKS AND ASSOCIATES PTY LTD
April 2000
Romance, courage, excitement, adventure spring to my mind when I see or read about a lighthouse, maybe because of memories of one of my first reading books, the Story of Grace Darling. I can still see the picture of little Grace, battling the seas in a life boat in an attempt to reach the survivors of a ship, wrecked "near the Longstone Lighthouse off the coast of England". And how I longed for the opportunity to be a Grace Darling.

The Story of a Lighthouse, South Solitary, by Naomi England, 1982

For a mariner, there is nothing better than seeing a lighthouse at sea, it is proof beyond reasonable doubt that you are somewhere.

Ross Constable, NPWS Ranger, Montague Island, June 1998

WRECK OF THE LY-EE-MOON OFF GREENCAP Lighthouse, MAY 1886
From Dusk Till Dawn, pp 87
A Unique Cultural and Natural Resource

The ten historic NPWS Lighthouses represent a unique and dramatic combination of natural and cultural features of high significance. The strongly evocative imagery of the towers and cottages at each Lighthouse is enhanced by their isolated settings, extraordinary coastal or island topography and extensive backdrops of natural landscape.

The Lighthouses and the topography in which they are located, represent a unique convergence of Aboriginal and European cultural values, associated primarily with the expression of the islands or headlands as lookouts and places of special meaning.

The Lighthouse complexes, particularly the combination of tower and cottages, located on rugged headlands or spectacular off-shore islands, present a unique, readily identifiable and visually pleasing imagery that is highly expressive of their location, function and the isolated lifestyles of the staff and the technology of their time.

In general the lighthouses have retained the extreme sense of coastal isolation, at the very edge of the continent, that is so clearly expressed by the relatively unchanged character of their natural backdrops. They form the visual pinnacle of the coastal topography which reinforces their imagery.

The Lighthouses represent the powerful combination of NSW Government agency cooperation between the Marine Board and the Colonial Architect’s Office in the latter half of the 19th century. The resulting architectural expression and functional consistency is of a very high standard and is unique in the Australian context.

While the designs of the individual Lighthouse towers are distinctive, it is the cohesive, late 19th century Victorian Georgian, NSW Colonial Architect’s style of the associated cottages that provides the unique, architectural identifier for the NSW “Coastal Highway” Lighthouses in the international context.

The NPWS Lighthouses enjoy a very high level of public identity, support and community ownership, being held in high esteem by many of the local residents in nearby towns or villages. They also play a very large part in the family histories of those who grew up there or worked there.

There are strong historical and scientific aspects of significance related to the important role of the Lighthouses within the arenas of international, national and regional maritime safety and commerce.

Most of the Lighthouses have important ecological, research and environmental values related to their settings and the natural systems which surround them.

The collective nature of the NPWS Lighthouses greatly reinforces the significance of the overall cultural resource. While each has its own characteristics, each makes an invaluable and vital contribution to the importance of the total collection. They were conceived, built and operated as an interdependent group of highly functional navigational aids. The interdependent nature of their role within the collective resource cannot be understated.

Conserving And Managing The Collection

NPWS is fortunate in that the Lighthouse complexes are generally in relatively good condition, and in some cases the towers are still being maintained by AMSA.

The Lighthouses were traditionally conserved by a rigorous programme of regular maintenance, undertaken by the Keepers, with occasional capital works support by the managing agency. While this led to some cases of un-tradesman like repairs, most complexes survived in remarkably good condition, given their harsh coastal environments. The exceptions are South Solitary Island where the cottages have been neglected since 1975 and Point Stephens where the cottages were destroyed by fire in the March 1991.

Most of the NPWS Lighthouses have undergone a programme of necessary catch-up repairs and essential conservation in the past few years. The key to on-going conservation of the building fabric is to implement a rigorous, cyclical maintenance programme to ensure that the buildings do not deteriorate to the point where major conservation expenditure will again be needed.

It is regarded as imperative that the cottages on South Solitary Island be “mothballed” to conserve them and that those at Point Stephens be reconstructed. The South Solitary cottages make a strong contribution to the qualities of the surrounding Marine Reserve and are a vital
component of the overall collection. Those at Point Stephens are unique within the collection and are the oldest Lighthouse cottages in NSW.

Each of the Lighthouses has left a cultural landscape setting which reflected the traditional lifestyles of the Keepers and their families. The complementary conservation imperative is to successfully manage the significant values of the cultural landscape features within the broader scale of the natural coastal topography and surrounding National Parks. The cultural landscape features often include archaeological sites, fence lines, pathways or roadways. These are an integral component of significance and must be conserved.

The coastal isolation of the early Lighthouse settings has generally been retained, often through the designation and management of the surrounding backdrop as National Park. This isolation is an essential characteristic of significance and must be maintained through the continued management of the adjacent National Parks.

The local Aboriginal communities have a long tradition of association and use of the majority of the headlands or islands on which the Lighthouses are located. NPWS should continue to liaise with representatives of the local Aboriginal communities and generally upgrade their level of involvement in decision making about the future of each place.

Of paramount importance to the conservation and management of the Lighthouses is that they be retained within NPWS control and managed as a collective resource. Victoria has leased six of its historic lighthouses to individual commercial operators, usually for low key holiday accommodation and tourism programmes. Given the highly centralised nature of their traditional operation and the greater potential for improved conservation and presentation, it is strongly recommended that all of the NPWS Lighthouses stay within direct management control. They should be gazetted, where possible, within the adjacent National Park.

Presenting The Heritage Significance

The conservation activities at each Lighthouse will be supported by site specific Interpretation Plans, formulated within a co-ordinated framework of overall interpretation of the entire Lighthouse collection. In this manner and through a variety of media and activities, the multi-layered significance of the places will be made accessible to the public.

Adapting To A New Future

Each of the Lighthouses has evolved over the past 100 years or more of operational life and technological development. In general this evolution has been gradual and has made only low key and subordinate impacts on the integrity of the early architectural expression, building compositions, landscape settings and heritage significance. In fact their evolution was an integral part of their ability to perform a continuous role in maritime navigation well into the late 20th century.

With the exception of those with operating lights or other navigational aids the Lighthouse complexes no longer fulfil their traditional role and a new life must be found for them within their new context as cultural resources under NPWS care and management.

The key conservation philosophy is therefore to enable the complexes to continue to evolve in a manner which has little impact on their heritage significance or the characteristics of their landscaped settings. This evolution will take the form of adaptive re-use in the context of making the significance of the places accessible to the general public and tourists visiting the local region. The development of such a new direction is now becoming the norm for the ever increasing number of redundant lighthouses around the world.

This conservation philosophy is in marked contrast to the majority of the recommendations contained in the original AMSA Conservation Plans. Those documents, and subsequent NSW Department of Land and Water Conservation (DLWC) CMP for Sugarloaf Point, focussed on fabric conservation and returning the complexes to some previous architectural imagery, usually pre 1951. The AMSA approach was formulated before any future ownership or use framework had been determined. Now that NPWS is the managing and conservation agency, a new direction is required, one that fits with NPWS corporate objectives and the opportunities that responsibly present themselves.

In order to attain the highest levels of conservation and re-use achievement, it is essential that the individual management activities of the responsible NPWS Regional Offices be given “intellectual” and research
MAKE THE SIGNIFICANCE ACCESSIBLE TO THE PUBLIC

- One of the primary components of the conservation management of the NPWS Lighthouses shall be to make the significance of individual Lighthouses and of the collective resource physically, intellectually and/or emotively accessible to the general public. These different forms of accessibility shall be managed in a manner which protects and enhances the complex and layered nature of their cultural significance.

- The Service shall undertake conservation management of the Lighthouses in the context of compatible re-use and of certain on-going operational maritime safety activities. Compatible re-use shall recognise the evolutionary development of the lighthouse complexes and be regarded as an essential part of protecting the layered significance and making it accessible to the general public.

- Compatible re-use shall be undertaken in the context of adapting the Lighthouse complexes and their cultural landscape settings to new directions. Adaption shall protect the cultural significance and be undertaken in a low key, evolutionary manner, consistent with the traditional way in which the complexes have evolved over the past century or so.

- Conservation management of the NPWS Lighthouses shall include the development and implementation of interpretation programmes which reveal the significance of individual Lighthouses and their relationship to the collective resource and the larger history of lighthouses throughout Australia and internationally.

- Conservation and adaption of the NPWS Lighthouse complexes and their cultural landscapes shall take place in the context of well managed and responsible cultural tourism programmes. These programmes shall include consistent and creative promotional programmes that link and coordinate the individual Lighthouses into the overall NPWS collection.

- The Service shall continue to utilise existing community and corporate support and sponsorship programmes.

- The Service shall implement the overall conservation, adaptive re-use and cultural tourism development programmes for the various Lighthouse complexes in a progressive manner within a staged programme over a number of years, in order to maintain an ever increasing cycle of public interest and support. This staging also recognises that several sites, such as Point Stephens and South Solitary, require considerable additional research, extensive capital funding or implementation of recommended future use options.
support and co-ordination by a central group within NPWS Head Office. A Lighthouse Reference Committee is recommended as the appropriate mechanism.

The Lighthouses should be recognised as a special resource by the Service, one that is different from the many other cultural sites now within the Service estate. The collective nature, close integration with natural features and strong cultural tourism potential requires an additional level of co-ordination and support for the responsible District staff.

**Opportunities For Cultural Tourism**

There are a number of cultural tourism opportunities available for the Lighthouses which enable their cultural significance and remarkable landscape settings to be made accessible to visitors, while generating some income to enable NPWS to better fulfil its service charter.

In general most of the NPWS Lighthouses present a mix of opportunities, including passive recreation, active interpretation and tour programmes, holiday accommodation, café, retailing and visitor services.

Each Lighthouses will respond to the opportunities to a different level and over a different time frame. For example Cape Byron is already well established, Smoky Cape, Montague Island and Green Cape are at an early stage but showing excellent responses from the public, while Point Stephens and Barrenjoey are primarily operating as landscape attractions for passive recreation. It is likely that South Solitary Island will be many years before a feasible re-use is identified. Sugarloaf Point is in the process of being transferred from DLWC to NPWS.

The concept of staged and staggered development cycles is a key component of managing the cultural tourism resource. It is important that the overall collection has a long term programme of progressive renewal, based on staggered release of new attributes across the ten Lighthouses.

The most important aspect of the Lighthouses is their distinctive imagery, one that is widely recognised and held in high esteem by the general public. The successful long term management of this imagery is the key to the success of the entire Conservation Management and Cultural Tourism programme. It will provide the overall co-ordinating framework for NPWS. A small and highly responsive group, called the NPWS Lighthouse Marketing and Promotions Unit is recommended to be established within the Community Relations Division. One of its functions will be the co-ordination and marketing of the lighthouses in conjunction with the Regional and District offices.
Primary Conservation Policies

Given that the NPWS Lighthouses represent unique cultural resource to NSW and the Nation, the Vision for the collective resource that has been developed through this Conservation Management and Cultural Tourism Plan is set out in the following core conservation management policies.

These Primary Conservation Policies summarise the full range of conservation policies which shall apply to all of the NPWS Lighthouses as a collection. These are set out in Part D of the Conservation Management and Cultural Tourism Plan. In addition, the Supplementary Information sections provided for each of the lighthouses at the rear of the main Plan, establish the essential conservation policy framework for each individual lighthouses, as an extension of the overall policies.

RECOGNISE AND MANAGE THE COMPLEX NATURE OF SIGNIFICANCE

- The Service shall recognise that each Lighthouse complex has a combination of natural and cultural landscape characteristics, Aboriginal associations and sites and components of the built environment, culminating in the Lighthouse tower, which are mutually reinforcing and complementary. Conservation management shall recognise and sustain these complexities and contributions.

RETAIN AND MANAGE AS A COLLECTIVE RESOURCE

- All of the ten NPWS Lighthouses shall be retained under the direct management control and responsibility of the NSW National Parks and Wildlife Service.

- The ten NPWS Lighthouses shall be managed as a collective cultural resource, with each individual Lighthouse being conserved and managed in a manner which retains and enhances its cultural significance and which contributes to and supports the overall significance of the resource.

- The Service shall develop and implement organisational initiatives which provide a co-ordinated management and information resource to ensure that the conservation management and cultural tourism activities, for each individual lighthouse, by the responsible NPWS Region Office are undertaken in a consistent manner across the entire collective resource.

- While a mix of commercial and non-commercial activities are acceptable at individual Lighthouses, within well defined guidelines, no Lighthouse site or complex shall be leased or otherwise assigned to other interests, in its entirety.

- NPWS shall consider gaining management control over the Hornby Lighthouse tower and its gazetted within Sydney Harbour National Park, within a framework which keeps operational responsibility of the navigation aid with Sydney Ports Corporation..
1.0
Introduction

1.1
Context of the Study

The NSW National Parks and Wildlife Service has assumed management control of ten historic so-called “Coastal Highway Lighthouses”, located along the NSW coastline, most of which are typically associated with three former staff cottages. They are within or adjacent to established National Parks, Nature Reserves, Marine Parks or State Recreation Areas.

This document provides the Service with a Conservation Management and Cultural Tourism Plan for managing these historic lighthouses as a collective cultural resource.

The subject lighthouses, described within this Plan as NPWS Lighthouses, are:

1858 Inner South Head Lighthouse Cottages
1862 Point Stephens
1875 Sugarloaf Point
1880 South Solitary Island
1881 Barrenjoey
1881 Montague Island
1883 Green Cape
1891 Smoky Cape
1901 Cape Byron
1951 Cape Baily

The Hornby Lighthouse tower at Inner South Head is not controlled or managed by NPWS, and is not legally contained within the Sydney Harbour National Park. NPWS control only the adjacent Lighthouse Keepers’ cottages and the general precinct. This report includes discussion of the Hornby tower in order for consistency within the overall collection of historic lighthouses along the NSW coastline. It also recommends that NPWS seek to gain management control over the tower as it has the potential to become an integral part of the NPWS collection.

Likewise, at the time of the preparation of this document, Sugarloaf Point had not been brought under NPWS management. However negotiations were in progress, that could result in such a transfer within the foreseeable future. This report includes discussion on Sugarloaf Point in the likelihood of such a transfer so that the management framework of Sugarloaf Point can easily be integrated part of the NPWS collection.

The major lighthouses were so named as they performed the primary role of guiding shipping along the coast and generally had a series of cottages for the Keepers, in addition to the lighthouse tower. Smaller lights were erected to mark the entries of rivers and ports.

The other major historic lighthouses in NSW are:

1880 Macquarie Light on South Head
1891 Point Perpendicular
1903 Norah Head

Norah Head is now controlled by the NSW Department of Land and Water Conservation (DLWC), while Macquarie and Point Perpendicular have been retained under AMSA control.

There are other lighthouses located at intervals along the NSW coastline that were erected in the latter half of the 19th century. In general however, these were smaller structures and, with some exceptions, were not equipped with associated cottages. Most marked the entries to regional ports or river mouths and most have been transferred to either the relevant local government authority or the NSW Department of Land and Water Conservation. Other lights were replaced or erected by AMSA in the latter decades of the 20th century. These tend to be of a more functional design and being based on modern technology, are of lesser visual appeal than the traditional structures.

The ten NPWS Lighthouses are among the larger number of Australian lighthouses declared surplus to requirements, or been converted to automatic operation, by the Australian Maritime Safety Authority (AMSA), in the early to mid 1990s. The majority of these lighthouses are being progressively transferred to State Authorities for long term management. In addition to those transferred to NPWS, other historic lighthouses in New South Wales have been transferred to the NSW Department of Land and Water Conservation.

NPWS therefore controls the majority of the major late 19th century lighthouses, the so-called “Coastal Highway Lights”, along the NSW coastline. It does not currently have management or conservation responsibility for the other chronological “book end” of the collection, Norah Head (last erected).

The Lighthouses represent a significant addition to the cultural resources managed by the Service. Every one of the NPWS Lighthouses is located in a dramatic and attractive coastal headland or island setting which greatly enhances their significance and cultural values. The addition of
the Lighthouses extends the opportunities available to the Service to manage the natural and cultural values of the sites in a complementary manner and in ways which expand their accessibility to the public.

Tourism is increasingly appreciated as an immensely positive force for natural and cultural conservation. It, almost uniquely, can capture the economic benefit of natural and cultural assets and harness this for conservation by supplying funding, educating the community and influencing policy. Domestic and international tourism continues to be one of the foremost vehicles for cultural exchange, providing a personal experience, not only of that which has survived from the past, but of the contemporary life and society of others. The universal popularity of lighthouses presents enormous opportunities to link conservation and tourism at these sites for the common benefit of the Service and the community.

The cultural and natural heritage of the Lighthouses and their settings record key aspects of the long processes that have shaped the Australian continent and its people. Lighthouses remain as potent symbols of the interactions between land and sea, earth and sky and the enormous power of these forces to shape national identity. Their transfer from operational status to one of cultural resource management represents a new direction for the Lighthouses in the public psyche. It is fundamental aim of this Plan to assist NPWS in managing that change.

The report was prepared for NPWS by a consultant team lead by Graham Brooks and Associates Pty Ltd, Heritage Consultants. It identifies appropriate re-use and tourism generating opportunities for the lighthouses which will not adversely impact on their cultural and natural significance. These findings and recommendations will be taken up by a parallel economic feasibility study. Together the reports will assist NPWS with the medium and long term management of the Lighthouses as vital components of the Service estate, ones which can provide some revenue to offset the general expenditure of public funds.

1.2 Study Objectives

The primary objective for the Plan, as set out in the Project Brief, is to provide an innovative vision for the NPWS Lighthouses, and to present policies and strategies to guide the Service in the conservation of the fabric and their management, including appropriate re-use, as a group and as individual sites.

To meet this objective a number of aspects were required to be addressed:

- The balanced and compatible management of cultural and natural heritage values of the site and the adjoining National Park;
- Consideration of the cultural significance of the individual lighthouse sites as well as their contribution to a representative collection of lighthouses in NSW and beyond;
- NPWS management framework, legislative requirements and other stakeholder issues related to the management of the complexes;
- Maximising cultural tourism opportunities for management that provides revenue return or guaranteed revenue support without compromising significant heritage values;
- The plan must be presented in an easily understood and user-friendly format for non technical users;
- The plan will form the basis for Plan of Management recommendations for each site.

In addition to these objectives, NPWS recognises and respects the fact that the Aboriginal communities associated with the areas of the lighthouses have a fundamental right to be part of any decisions made about the future management of these places. This study includes an Aboriginal heritage component which aims to identify the existing framework of Aboriginal community consultation and participation in the current management practices of the NPWS and to suggest a framework for ongoing and future consultation.

The Aboriginal Heritage component also provides a preliminary assessment of the importance of these places to the Aboriginal communities in terms of prehistoric archaeological sites, post contact and contemporary Aboriginal history and associations with these areas against which the NPWS can help structure the future consultation.

The Aboriginal consultation programme and the findings of this component of the study are not intended to be final or conclusive, rather this is the first step in an ongoing and developmental programme for the exchange of views between NPWS and the Aboriginal communities and the establishment of management processes which include the Aboriginal communities.
1.3

Methodology and Structure

BACKGROUND

By the early 1990s AMSA had automated the operation of many of the lighthouses around the Australian coastline or declared them to be surplus to needs, given the advent of modern satellite navigation technology. Since many of the complexes were regarded as being of National Estate value by the Australian Heritage Commission, AMSA commissioned the preparation of Conservation Management Plans for each of the subject lighthouses. These plans were generally completed in the mid 1990s.

Following the transfer of ten sites, NPWS identified the need to review the earlier conservation plans in order to develop a management and conservation direction which was more suited to the needs and circumstances of the Service. In particular the various Lighthouses were considered to present a strong potential for show-casing the combination of conservation and interpretation activities that are a fundamental part of the NPWS Charter.

NPWS considered that the original conservation plans, and subsequent DLWC plan for Sugarloaf Point, concentrated primarily on the conservation of the physical fabric of the buildings, while the Service needed more broad ranging recommendations that coincided with Service operational methodologies and for the presentation of the significance of the Lighthouses to the public. In addition, the earlier plans, which had often been prepared in advance of any definite future ownership or use, generally recommended an approach which returned the fabric of the complexes to particular historical points in time. Such an approach took little account of the evolution, from operational status to cultural sites, that is taking place with lighthouses around the world.

Accordingly this Conservation Management and Cultural Tourism Plan concentrates on the future management of the Lighthouses as places of cultural and natural heritage in the context of interpreting these values to visitors. It supersedes the original AMSA and other conservation plans.

METHODOLOGY

The key methodology of this study, by comparison to the earlier conservation plans was to primarily consider the Lighthouses within their natural and cultural landscape settings, identifying and reflecting on the consequent levels of symbolism that they represent. It builds on the fundamental methodology contained in the Australia ICOMOS Burra Charter and Dr JS Kerr’s The Conservation Plan, first gaining a thorough understanding of the individual places and their contribution to the overall NPWS collective resource. Conservation opportunities and requirements are then identified within the new direction for the Lighthouses implied by their transfer from operational status under AMSA to a cultural resource managed by NPWS, with some of the towers maintaining an ongoing lease arrangement with AMSA. Conservation recommendations are also prepared with reference to the ICOMOS International Cultural Tourism Charter, which recommends that one of the main reasons behind any conservation activities should be to make the significance of the place accessible to the public.

The study commenced with a wide ranging review of the extensive documentary material previously gathered by NPWS, supplemented by background reading on the history of lighthouses and the subsequent management of those that had closed as operational centres in other countries and elsewhere in Australia.

Individual site visits were undertaken and combined with consultations with relevant NPWS staff, local tourism bodies and other interested parties. It was during these site visits that the realisation grew of the powerful landscape compositions in which each of the Lighthouses is set. The study took account of the extraordinary combination of cultural and natural values, which is inherent in the essence of each site.

Throughout the study a series of steering committee meetings were held with representatives of NPWS Cultural Heritage Services Division, Regional and District Offices, site managers, the Australian Heritage Commission and the NSW Heritage Office. During these meetings members of the consultant team were able to test their emerging findings and initial recommendations against the background knowledge and objectives of those present. NPWS provided advice to the consultants in relation to the AMSA lease arrangements and implications for management.

The Aboriginal component of this Plan involved a series of field consultations with District NPWS staff and the relevant Local Aboriginal Land Councils and Tribal Elder Groups and some Native Title Groups in each of the lighthouse areas. Some of the meetings included input from local NPWS staff. The consultations were preceded by a series of phone contacts and a questionnaire. Follow up phone calls were made.
in most cases to confirm and elaborate on field interviews and discussions. These consultations were seen as an initial step in the overall future management of the Lighthouses. The meetings and interviews varied in depth and length and were limited by a tight field programme.

This report identifies many of the relevant Aboriginal community groups in each of the areas and recognises that other groups may emerge in the future which will need to be incorporated in the consultation and joint management structures proposed by this report. Issues canvassed in the consultations and interviews included Native Title claims, sites of significance, Aboriginal tourism and current consultation practice.

Information on sites and Aboriginal history and associations with the lighthouse areas is referred to throughout this report. Individual Aboriginal communities had different levels of interest and associations with the lighthouse areas but all were concerned with their future management in terms of their status within National Park. The proposed consultation and management structure is therefore appropriate for each area with local variations. Individual interests including tourism, hunting and fishing rights, specific site management requirements and continuing community use of the areas are summarised in table form.

STRUCTURE
The study blends Aboriginal and European heritage values and responses together into a combined sequence of understanding and management. It also blends together descriptive text and graphics of the landscape and built environments with the historical narrative of how those aspects of the cultural landscape shaped the final outcomes.

The overall report first addresses aspects which are common to all the Lighthouses that make up the collective NPWS resource. Individual summaries are then provided for each of the ten Lighthouses, outlining site specific information and responses to conservation, management and tourism issues.

The report structure is divided into five major sections:

- Introduction
- Understanding the Resource
- Constraints and Opportunities
- Conservation Policies for the Collective Resource
- Implementing the Plan

In addition to the main Plan, a separate summary document is provided for each of the ten Lighthouses, outlining the specific application of the general conservation and cultural tourism principles which have been developed for the overall or collective resource.

Given the critical relationships between the Lighthouses and their settings, within the body of the Plan the analysis and recommendations are grouped into relevant cultural landscape curtilages of descending scales:

THE COASTAL EDGE, representing the natural landscaped backdrop and broad Aboriginal values;

HEADLANDS AND ISLANDS, representing the immediate setting of the Lighthouses, including traditional and contemporary Aboriginal uses of the locality;

BEACONS OF LIGHT, representing the immediate curtilage of the Lighthouse complex;

THE CONSTRUCTED IMAGE, representing the buildings and other structures within the Lighthouse curtilage.

TERMINOLOGY
The original AMSA Conservation Management Plans utilised the terminology Light Station to refer to the lighthouse complexes as a whole.

This report returns to the more popular term Lighthouse as the generic term for the whole complex, primarily as one of the objectives of the overall programme for these sites is to raise their profile and recognition within the general community. For that reason the descriptor NPWS Lighthouses has been adopted as the presentation terminology for the collective resource of nine lighthouses. This may eventually be expanded to NSW National Parks Lighthouses.

Within that terminology the actual tower is identified as the Lighthouse Tower and the associated cottages are identified by their original function, Head Keeper’s or Assistant Keepers cottages.

In addition the general terminology of conservation terms is consistent with that adopted in the Australia ICOMOS Burra Charter. “Building Fabric” refers to all the components of a particular building, including structure, cladding, services, fittings and fixtures.
Where a date is applied directly to a lighthouse without further reference, it indicates the year in which the light was first exhibited.

RELATED ECONOMIC STUDY

During the preparation of the main Conservation Management and Cultural Tourism Plan, NPWS commissioned a parallel economic feasibility study from Hassall & Associates. This study assessed the likely tourism markets for the Lighthouses once they became operational locations for cultural tourism. The primary objective of this study was to identify if the Lighthouses could reasonably contribute revenue to the overall activities of NPWS.

1.4 The Study Team

The Study team responsible for this project comprised:

- Graham Brooks, Luisa Alessi, and Bradley Hankey of Graham Brooks and Associates, Heritage Consultants
- Matthew Taylor of D M Taylor, Landscape Architects
- Bill Nethery of Mitchell Nethery Heritage Presentation
- Mary Dallas and David Watts of Mary Dallas Consulting Archaeologists, in consultation with the Aboriginal communities associated with each lighthouse.
- Emmanuel Mongon of Imaginvest Tourism Consultants, Paris

1.5 Photographic & Documentary Sources

The primary text for the historical material contained in Sections 4.1 to 4.7 was the publication From Dusk till Dawn, A History of Australian Lighthouses, by Gordon Reid, Macmillan Company of Australia Pty Ltd 1988. Several additional references are contained in the text.

The primary research documents for the individual Lighthouses were the Conservation Management Plans prepared for AMSA or the Commonwealth in the early 1990s by either Clive Lucas Stapleton and Partners, Australian Construction Services and JRC Planning Services. Robert Irving and Chris Pratten prepared a number of heritage analyses of the Cape Byron Lighthouse complex. During 1998 David Sheady prepared a conservation plan for the Keepers’ Cottages at the Hornby Lighthouse at Inner South Head. In July 1999 Suters Architects prepared a 2nd draft Conservation Management Plan for Sugarloaf Point Lighthouse, prepared for DLWC.

A full list of the sources referred to during the study is included in the Bibliography.

A full list of graphic images sourced from existing documentary material or the Internet, is listed in the Bibliography.

Additional documentary and photographic sources included the following:

- Photographs taken by Graham Brooks during the Lighthouse site inspections in May and June 1998 and by Bradley Hankey for Sugarloaf Point in February 2000. (Annotated GBA)
- Photographs, particularly aerial shots, supplied by NPWS staff. (Annotated NPWS)
- Photographs, maps, plans and other graphic material sourced from the Conservation Management Plans completed in the early 1990s for AMSA and DLWC, as acknowledged.
- Photographs sourced from books, the Internet and tourist information publications, as acknowledged.
- Additional reference documentation provided by NPWS, much of it comprising internal communications.
- Various publications and Internet references to foreign lighthouses
- Newspaper articles.

1.6 Acknowledgments

The authors would like to thank all those who participated in the development of this Plan. In addition to the study co-ordinator, Miriam Stacy, NPWS Conservation Architect, a number of NPWS staff and others contributed to the series of steering committee and other meetings.
NPWS staff included Cathy Mardell and Colin Campbell from Port Macquarie, Mark Johnstone, Ross Constable, Preston Cope and Rebecca Grumley from Narooma, Alan Jeffery and Craig Dickman from Merimbula, Robert Quirk and George Manolakis from Hunter, Jennifer Carter and Richard Pierce from Sydney, Peter Evans, Denise Allen and Danny Corcoran from Dorigo, Arthur Willis and Ray Jasper from Ku-ring-gai, Sean Court and Nick Rigby from Cape Byron, Gary Dunet and Sharon Evans from Botany Bay, Stephen Smith from Forster, Denis Byrne, Anna Wong, Lyn Webber, Alison Ramsay and Andrew Thornton from Head Office.

Grahame Crocket from Australian Heritage Commission, Wayne Johnson and Susie Hoppe from the NSW Heritage Office, Stan Rees and Brett Whiteman from DLWC, Mark Sheriff from Sugarloaf Point Lighthouse.

In addition many people from Local Tourism Bureaux and other interested local residents provided considerable assistance to the consultant team.

Information on the Aboriginal interest in the Lighthouse sites and their management was gained through consultation with members of the local Aboriginal communities in each area. Their assistance in providing information, attending meetings and interviews and supplying completed questionnaires is gratefully acknowledged.

The following community members representing Local Aboriginal Land Councils and Elder Groups or Native Title groups were consulted throughout the course of the study:

Green Cape
Eden LALC: Ben Cruise; Aussie Cruise
Yuin Elders: Aussie Cruise, Eric Naylor

Montague Island
Wagonga LALC: Ron Mason
Dirringgi Native Title Group: Ron Mason
Walbunaga Native Title Group: Norman Parsons

Cape Baily and South Head
La Perouse LALC: Assin Timbery, David Bourke, David Ingrey

Barrenjoey
Metropolitan LALC: Jenny Munro

Point Stephens
Worimi LALC: Len Anderson, Iris Russell
Worimi Tribal Elders Group: Carol Ridgeway-Bissett

South Solitary Island

Coffs Harbour LALC: Janet Layton, Anita Craig
Garby Tribal Elders Group: Tony Perkins
Mudjary Tribal Elder Group: Steve Hart
Gumbular Jilipji Tribal Elders Group: Ken Craig, Tony Flanders
Goophying Tribal Elder Group: Richard Kelly
Smoky Cape
Kempsey LALC: Neville Cohen
Dhunghutti Tribal Elders Group: Cedric Button, Ray Kelly

Cape Byron
Tweed Byron LALC: Des Williams, Clarence Phillips
Jali LALC: Lewis Cook
Arakwal Elders Group: Eyvonne Stewart

Sugarloaf Point
Forster LALC: Mick Leon and Lorna Paulsen
Karua LALC: David Feeney

1.7 How to Use This Plan

This Conservation Management and Cultural Tourism Plan presents a comprehensive conservation management strategy for the ten historic Lighthouses, their related complexes and environs.

The Plan introduces the general heritage characteristics and management issues that apply across the entire collective resource. It establishes policies and prioritised implementation guidelines and sets out a collective Interpretation Plan. These policies and guidelines generally relate to all of the sites. In particular instances site specific policies or guidelines are contained in the main Plan.

The Plan is supported by Supplementary Information relating to each of the ten Lighthouses. These contain more detailed contextual overviews and site specific information in addition to a site specific conservation direction and specific implementation guidelines.

Managers of individual sites should therefore read and implement both the recommendations of the main Plan and those for the specific site.
Part B

Understanding the Resource
2.0
The Coastal Edge

2.1
Isolation

The majority of the NPWS Lighthouse sites are located in large tracts of relatively undisturbed coastal landscape which are now largely protected and managed as National Parks or Nature Reserves. Smoky Cape, South Solitary Island, Sugarloaf Point, Point Stephens, Barrenjoey, Cape Baily, Montague Island and Green Cape, in particular enjoy such natural settings. This combination of coastal topography and natural landscape has served to reinforce the general sense of isolation that is one of the key points of reference in the imagination of most people when they think of lighthouses.

The isolation has also served to preserve in most cases an “original” land form, environmental context and natural texture, facilitating the preservation of Aboriginal associations and cultural sites.

Aboriginal people do not necessarily view the coastal lands on which the lighthouses are situated as being in isolated locations, or separated from other parts of their country. The coastal strip provided an enormously important and diverse environmental resource zone for the Aboriginal owners. Within relatively short distances, sandy beaches and embayments, rock platforms, estuaries and the hinterland could all be accessed. With the possible exception of South Solitary Island, which is particularly hazardous to get to, all the lighthouse areas have been visited for economic, social or religious purposes. Most areas have been used or visited for a variety of purposes up to the present in spite of difficulty or restriction of access to the actual lighthouse precincts. Prehistoric Aboriginal occupation sites have been identified at all the headlands or island lighthouse locations except South Solitary, where no detailed surveys have been undertaken. Continuing use by local Aboriginal communities takes place at most of the localities.

In the more recent past, access to the areas containing the lighthouses has been somewhat restricted by virtue of them being Commonwealth lands or more lately within National Parks. In spite of this Aboriginal communities have maintained close associations to the areas. For the Aboriginal people the coastal edge, particularly the elevated and often rugged headlands and promontories, are an integral part of their physical and cultural landscape.

To the European settlers, the rugged coastline and isolated settings of the lighthouses reinforced their sense of the separation of the new Colonies from their homeland on the other side of the world. This reality, of a European style society based on an island continent at the other side of the world, has been a major factor in the make-up of the Australian psyche, particularly until the later decades of the 20th century. Australians saw themselves as a settler society when measured in their own minds, against that of the homeland.

The isolated setting of the lighthouses aids in the expression of this aspect of the national outlook. The small groups of lighthouse buildings, clinging to the wild beauty of the coastal topography clearly evokes the initial struggles to settle the foreign landscape. In almost no other location is that sense of struggle still seen so clearly.
2.2 Coastal Topography

In the prehistoric past, during times of lower sea levels, the actual coastline and coastal strip would have been further east. Aboriginal sites related to that strip are now submerged. The current coastal areas would have been set in an inland and elevated context. South Solitary and Montague Islands would have been low hills on a coastal plain and more accessible than at present.

The coastal topography emphasises the location on the edge of a large continent, the very qualities of that edge making human efforts seem relatively insignificant and subservient to the forces of nature. It is a salient reminder of the fallibility of human life, of the power of the sea. While in modern day, many elements of our lives have a degree of control, we cannot control the sea and its many moods. Nowhere is this more clearly demonstrated that at South Solitary Island, where even getting ashore is filled with danger and high drama.

The lighthouses, through the requirement that they be sited on exposed points, high above the coastal edge, highlight the changing weather patterns that can occur at short notice or on a seasonal basis. Their settings provide very strong reminders of our associations with earth and sky, with the bigger elements that shape our very existence.

In many cases the drama of the coastal topography almost dominates the lighthouse complex, making the group of buildings seem subservient to the place. Countering this is the strong visual imagery of the lighthouse tower, acting as the pinnacle and focus of human activity in the wild topography.
2.3 Coastal Ecology

While much of Australian continent that was settled in the 19th century was “tamed”, as the new settlers imposed familiar patterns such as the English countryside onto an exotic landscape, this was not possible at the lighthouse locations with their harsh weather conditions. The gardens, yards and orchards in the immediate curtilage of the Lighthouses are a key expression of the very determination of the lighthouse staff to create a landscape that had some form of cultural familiarity in these exposed locations. The small scale subservient nature of these cultural landscapes are in stark contrast to most other areas of modern habitation in Australia, where the imposed landscape expression generally dominates the natural or found landscape, reflecting the new settlers’ view of the world.

The patterns of landscape that had been familiar to Aboriginal people for thousands of years were largely retained through the rugged and inhospitable nature of the coastal backdrop to the lighthouses. The extensive planting of Australian rainforest species that were popular throughout city or township parks and streets, creating that green lushness and form which found favour in 19th century aspirations of place, were not possible at the lighthouses, leaving them exposed to the rigours of nature, unclothed, except for minor plantings, in anything familiar.
3.0  
Headlands And Islands

3.1  
The Mythological Landscape

Aboriginal mythologies are known for some of the lighthouse sites. Many of the stories associated with these places have been lost or are known only to some community members. The dislocation of Aboriginal people at the time of invasion had greatest effect in places where the invaders wanted most to be, including the main urban and farming centres along the coast. The Aboriginal people in Sydney were murdered, relocated or died from disease very early and the mythologies and stories for the area appear to have been lost. In other areas such the south coast or the Macleay and Richmond Rivers, Aboriginal people were segregated on official reserves or unofficial fringe camps organised around the local pastoralists labour requirements (Morris 1989). These communities in the absence of comprehensive political controls maintained aspects of their past social and material culture.

Annual holiday gatherings, often at Christmas, were held at places along the coast which had been regularly used in the past and which were very well known for their resources. This was a time for people to get away from their inland reserves and missions and meet relatives and friends from other places. Fishing and shellfish collection supported these groups over several weeks. Pressures on ceremonial life were great and the maintenance of an oral tradition and ceremonial obligations over their wider lands was extremely difficult (Kelly 1975; pers. comm.; see also Collins 1995: 38ff). This tradition is still practiced by many Aboriginal coastal communities, such as at Green Cape (pers. comm. by Aussie Cruise).

Places in the landscape were created by mythological beings. Physical features mark their travels and exploits through the land.

Sugarloaf Point is one of the areas focussed on by the Forster LALC in their cultural heritage program. They have conducted site surveys and recorded myths known to Worimi elders. Several Worimi elders have reported on two mythological sites at Sugarloaf Point. One is associated with the Blowhole at the Point and the other is associated with the first set of rocks off the Point. The latter appears to be related to the Cape Byron Julian Rocks myth. The process of recording these myths continues and the liaison with the
Worimi elders should be undertaken through the Forster LALC.

Montague Island is part of a complex of significant places in the region with which the local people maintain strong cultural and social associations. The Island was created by the eldest son of Gulaga who is Mount Dromedary, as he travelled east towards the coast. Gulaga is a place of great spiritual power where elders would meet to discuss tribal matters and conduct initiation ceremonies (Byrne 1981). Njanuka the younger son was called back by his mother and he became Little Dromedary.

The islands off the Coffs Harbour-Yamba coastline also have mythological importance and associated creation stories.

Stories associated with Smoky Cape and the Smoky Cape Range have been collected by Ray Kelly and Harry Creamer of the Sacred Sites Team of the NPWS. These include an increase site, a men’s ceremonial site and a creation story about Broongun gutti’s egg in the water just east of Trial Bay Gaol [Ray Kelly pers comm.].

At Cape Byron, there appear to be no recorded myths specifically associated with the headland, however there is a legend associated with the nearby Juan and Julian Rocks. The story is about the creation of the offshore rocks by the drowned lovers of an intertribal love affair. The lovers had eloped, pursued by their furious parents and Elders. The rocks emerged from the sea the morning after they drowned. Collins [1995: 17] describes two other recorded myths associated with the Rocks’ creation.

Creation myths or legends about Point Stephens, Barrenjoey, South Head, Cape Bailey and Green Cape do not appear to have survived. In some of the local communities this oral tradition may have been lost. In others, older community members are actively working to ensure such myths and local legends remain an integral part of community life.

Aboriginal community connections to the headlands and islands have often resulted in the survival of physical remains or archaeological sites. Some locations have been relatively well surveyed to identify such remains, others to a lesser degree or virtually not at all.

3.2 The Vantage Points

There is a convergence between the prominence of the settings, the consequent position and function of the lighthouse beacons as sentinels for coastal navigation and the use Aboriginal people often made of major headlands or high vantage points along the coast. That common focus is outward towards the sea.

The immediate setting of the lighthouse sites are elevated vantage points along the coast. They provide navigational advantage in difficult sea passages or weather. Aboriginal mariners were possibly the first long distance sea voyagers in the world. Coastal fishing using canoes in open water is well known along the NSW coast. The Wagonga people around Narooma travelled to Montague Island for the seasonal exploitation of sea bird eggs and mutton birds. These mariners undoubtedly used coastal headlands and elevated points as reference points for return trips. Fishing the coastal embayments also takes advantage of the elevated coastal landforms. Net fishermen set their nets from canoes/boats off the beaches below on signals from fish spotters watching the movement of shoals from headlands above.
Prominent features in the landscape such as mountain peaks or ranges, coastal promontories and rocky headlands were also seen as markers on cultural maps. They may have identified group boundaries or "milestones" in journeys or places of particular significance for economic or ceremonial reasons.

The headlands and to a lesser extent the islands along the New South Wales coast have long been seen as vantage points by mariners, settlers and explorers. Their continuing popularity is evidenced by the visitors books kept by most of the Lighthouse Keepers during the later decades of the 19th century and into the next. Keepers were also expected to keep records of passing shipping. The headlands and lighthouses were popular destinations for those with adventurous spirits.

Montague Island became a popular picnic spot for groups ferried out in a coastal steamer, Barrenjoey Headland could only be reached by horseback or rowing boat, but recorded a steady flow of visitors who helped to alleviate the loneliness and solitude of the Lighthouse Keepers and their families.

During the late 19th century and again in World War Two several of the headlands were recognised by the military as providing beneficial locations for coastal surveillance and fortifications. These were most notably located in association with important military targets, such as Sydney Harbour and Port Stephens, but others such as Smoky Cape also accommodated military installations.

Today the headlands remain as popular places to visit and are increasingly being recognised as excellent vantage points to watch for passing whales as they migrate along the coast. Cape Byron headland enjoys enormous popularity for both domestic and international tourists as the most easterly point on the Continent, beyond which there is nothing but the vastness of the oceans.

The cultural characteristics of these headland or island locations can be expressed as a variety of zones in terms of NPWS management activities:

- Fire Protection areas or barriers.
- Access routes, either by vehicle, foot or launch.
- Walking tracks linking the lighthouse to nearby natural or cultural attractions.
- Car parking areas or landing points such as a jetty or beach.
- Food production areas which supported the lighthouse keepers and their families.
- Archaeological sites and site features related to the construction of the lighthouse complexes or their subsequent operation.
- Aboriginal archaeological sites, sacred places or sites of current activity.
- Shipwreck sites, memorials and graveyards.

3.3 Navigating The Coastline

At the dawn of the 19th century the outline of the Australian continent was so poorly defined that when Matthew Flinders was surveying the Gulf of Carpentaria in 1802 he found the existing charts, which were based on the Dutch explorations of the first half of the 17th century, almost useless. It took a series of expeditions between 1801 and 1837 to discover and chart the Australian coastline.

England had every incentive to survey Australia's shoreline, being jealous of her pre-eminence in maritime discovery. With the charting of the eastern coast by James Cook in 1770 and Arthur Phillip's raising of the Union Jack in Sydney Cove in 1788, England had secured an outpost of empire in the South Pacific of immense strategic importance.

It should be noted that many of the coastal voyagers and chartists observed Aboriginal people on the coastal shores and headlands, often noting their fires and camping places.

During the following decades maritime trade, particularly between Britain and Australia, steadily increased and the dangers of navigating the long coastline grew accordingly. The earliest recorded shipwreck on the Australian coast was the English East India Company vessel TRIAL in 1622. It was the first of hundreds to be wrecked on what later mariners described as among the most dangerous coastlines in the world.

Once the settlement of Sydney had taken shape, maritime trade from England soon increased, with the majority of vessels taking the southern route from Cape Horn to Van Diemens Land, before turning north for the run up the NSW coast. This voyage carried major dangers for early navigators.

Along the New South Wales coast northbound shipping has to contend with the East Australian Current, which sets to the southward at up to two knots. The strength of this adverse current is significantly reduced close inshore, with a reverse eddy sometimes boosting a ship sailing in the
main current. After rounding Point Hicks and passing Gabo Island, Green Cape juts out into the path of vessels which may be hugging the shore to avoid the current. The adjacent, aptly named, Disaster Bay is ample evidence of the hazards that the headlands along the NSW coast posed for mariners.

The recently published Shipwreck Atlas of NSW from the NSW Heritage Office records dozens, if not hundreds of shipwrecks along the entire length of the NSW coast. Inevitably it took a great deal of pressure from mariners, coupled with the political demands resulting from huge losses of life and cargo, before the authorities were stirred into providing navigational aids along the principal shipping routes.

3.4
Aboriginal Cultural Resources

As well as the mythologies and Dreamtime stories maintained by Aboriginal communities, Aboriginal cultural resources include a number of types of sites which have left enduring physical remains. These types of sites date from the prehistoric past to the present. While the sites are classified below into time frames the Aboriginal people see their history as seamless. Europeans often only see the physical remains of the prehistoric past as important cultural items and may trivialise the more recent events and places associated with them. Indeed much of the more recent history of Aboriginal people (Goodall 1996) has been "hidden." Deliberate government policies segregated and split Aboriginal communities and information concerning the life of Aboriginal people is often limited to oral histories and recollections of the Aboriginal people themselves (see also A Guide to NSW State Archives relating to Aboriginal People 1998). There are also sites associated with this later history.

PREHISTORIC ARCHAEOLOGICAL SITES

These sites pre-date the invasion and include occupation sites, shell middens, stone artefact scatters, scarred trees, burials, stone quarries etc. Examples of some of these site types are known to be located at all the lighthouse sites except South Solitary Island (ref: NPWS Register of Aboriginal sites). The absence of evidence at South Solitary is likely to be because no survey has been undertaken there because of its isolation and not because the Aborigines didn't occupy it as an Island or before when sea levels were lower.

Archaeological surveys have located sites at Montague Island, Cape Byron and around Cape Baily (Sullivan 1975; Collins 1995; Smith et al 1990). These surveys involved sample areas and were not comprehensive. It is highly likely further evidence will be located at these lighthouse locations. Sites recorded at or near the other lighthouse locations have been found by accident and recorded by interested members of the public or by NPWS staff, eg. at a sheltered overhang containing midden at Barrenjoey, scarred trees at Smoky Cape, middens at Cape Byron and rock engravings at South Head. An archaeological reconnaissance at Seal Rocks for a Plan of Management [McDonald 1995] covered areas around the Lighthouse but did not include the actual Precinct. The Service however, cannot assume that the known or registered sites are the only ones present at each location.

There are shell middens at Cape Byron, Point Stephens, South Head, Montague Island, Green Cape and Sugarloaf Point. There are known open camp sites identified by open artefact scatters at Green Cape, Montague Island and Cape Byron and a possible quarry at Montague Island and a definite quarry at Sugarloaf Point. There are a number of rock engravings at South Head both within the lighthouse precinct and over the headland. A pathway to the lighthouse along the western side of the Headland crosses such a site.

CONTACT SITES

There are no contact sites registered on the NPWS Aboriginal Sites Register for any of the lighthouse areas. These sites relate to the interaction between the Aboriginal owners and the invaders which occurred at varying times along the NSW coast. While there are many recorded instances of this interaction (see Goodall 1996; Ross 1976) few sites remain.

Lewis Cook (Jali LALC) refers to Cape Byron as a place where inter-tribal fighting took place relatively late and is concerned burials at this place may date to this period. David Ingrey (La Perouse LALC) cites references to Pemulwuy in the sand dunes at Kurnell in full ceremonial gear and an encounter at the beach at Watsons Bay. There is a reference to an Aboriginal hut on Montague Island stocked with bush nuts which was used by white fishermen.

At each of the lighthouse areas research into the contact phase will provide local examples of the early interactions. These can be used in local interpretation displays or features as may be developed for the lighthouse areas.
POST-CONTACT HISTORY

Sites associated with Aboriginal life following the invasion are most recognisably the missions and reserves and reserve cemeteries. The “Christmas camps” along the coast to which families continue to be drawn are also an important part of that history. Ray Kelly (pers comm.) refers to such a camp to the south of the camping ground at Smoky Cape. Aussie Cruise (Yuin Elder) refers to these camps on the Green Cape peninsula which were relocated following the gazettal of the Ben Boyd National Park. These places are extremely significant to the Aboriginal community as they clearly show ongoing associations with places to which they were generally excluded.

CONTEMPORARY ASSOCIATIONS

Aboriginal communities have maintained connections to each of the lighthouse areas and the National Parks in which they are located. National Parks are often seen by Aboriginal people as places where their sites have survived best, although not necessarily the best managed. Aboriginal people have a strong interest in the management of their cultural heritage in these areas and a fundamental interest in the land at these places. All the relevant Local Aboriginal Land Councils and other local Aboriginal community groups are consulted on matters relating to cultural heritage and archaeological sites within the Parks. Since the gazettal of the National Parks & Wildlife Act 1974 as amended, there has been a history of LALC participation in archaeological surveys for impact assessment as part of EIS, REF, LEP and other development impact assessment projects or planning instruments. Some projects within Service estate are usually discussed with the LALC where there are possible impacts on sites.
4.0
Beacons Of Light

4.1
Guiding The Navigators

Internationally there were two major phases of lighthouse construction. The first can be broadly divided into the traditional technology of lighting fires atop coastal or island towers, that dates back to classical times. The second and more important, was in the late 18th and early 19th centuries with the technological developments that focussed increased light sources into directed beams and utilised more consistent sources of fuel.

Despite various lookout and light towers being a feature of coastal and harbour navigation since 280 BC, there were only about 250 lighthouses world wide by 1820, the majority having been erected in the previous fifty years.

The great period of lighthouse building around the world extended from about 1840 to about the First World War. It coincided with large increases in the volume of international maritime trade, based on steam powered shipping, a breakdown of long standing Great Power trading barriers, particularly in Asia and the Americas and the increasing need for maritime safety, supported by the technology to make lighthouses an efficient form of navigational safety. Since the Second World War, many traditional lighthouses, world-wide, have been closed and replaced by more modern technology, including satellite navigation aids. This has thrown the traditional lighthouses, most of which enjoy a great deal of public support, into a new world of conservation and re-use.

The first recorded lighthouse in the ancient world was the famous Pharos lighthouse at Alexandria, erected in about 280 BC. There were said to be about 30 lighthouses erected throughout the Roman empire. Initially they burnt wood but were converted to oil around 100 AD. The oldest Roman lighthouse still extant in Europe is at La Coruna, in NW Spain. It was radically altered in the 18th century.

During the 500 years after 1100 AD, it is known that various lighthouses or harbour markers were erected in Europe, by the Italians, French and Hanseatic League. The oldest lighthouse in the British Isles is at Hook Head in Ireland, erected in 1172 and “modernised” in 1791. It’s present lantern was installed in 1864 and converted to electricity in 1872.
Two wooden towers were erected in the late 14th century to mark the entry of the River Scheldt, at Zeeland on the Dutch coast. Pressure for their construction had come from the sea captains. They were replaced many times over subsequent centuries, resulting from fire damage, shifting coastal topography and storm damage. The modern masonry lighthouse, 45 metres high, was erected in 1840, under the instruction of the Inspection of Pilot Services. 

In 1584 the first "modern lighthouse was erected at the mouth of the Gironde River in eastern France. It was 51 metres high and included living quarters.

By contrast the first lighthouse erected in South Africa was constructed in 1657, at Robben Island. The first solidly constructed lighthouse in South Africa was at Green Point in Table Bay in 1824, followed by Cape Agulhus in 1848. The current lighthouse on Robben Island was erected in 1865.  

In 1514 Henry VIII granted a charter to the ancient Guild of Shipmen and Mariners to control the pilotage of vessels in the rivers of his realm. Queen Elizabeth I extended the authority of this body to the erection of sea marks, in 1594. The Guild was to become known as the Corporation of Trinity House, a body which went on to dominate the operation of lighthouses in the United Kingdom. Central to the provision of lighthouses was the right of the operator to collect dues from passing vessels. This was a lucrative business, but one that was readily paid by mariners and ship owners as it aided the safe passage of ships and cargoes in hazardous waters.

The first major lighthouse in the United Kingdom was erected on the Eddystone reef by Henry Whistansley in 1696. It was constructed of timber and stood 36 metres tall. It was replaced several times before the current (or 5th) Eddystone lighthouse was erected in 1882. It replaced a revolutionary design developed by John Smeaton in 1759, the circular tower with a bell cast base, made from interlocking masonry blocks.

Smeaton was said to have based that design on an English Oak tree, the form of which he considered to have the best capacity to resist the forces of wind and sea. This so-called "wave swept" tower design proved to be a universal model and was erected in many locations throughout the world, including in Australia at Gabo Island (1862) and Point Stephens (1862).

1 Lighthouse Digest, June 1998, pp25
2 Lighthouse Digest, June 1998, pp12
During the late 18th century various improvements were made in the technology of lamps and reflectors to improve the output and efficiency of the actual light source. The breakthrough came in 1828 when the Frenchman August Fresnel produced the first apparatus using the refracting properties of glass, surrounding a central lens with concentric prismatic glass rings. In 1850, the English glass manufacturer, Chance Brothers, of Smethwick, near Birmingham, decided to branch out into the production of lenses for lighthouses. Chance Brothers went on to dominate the English speaking world in the manufacture of lighthouse optics, producing a range of strengths and equipment that could be purchased as a package and installed at the top of the masonry tower. Most of the lighthouses erected in Australia in the second half of the 19th century had optics by Chance Bros.

Coupled with increased power and efficiency was a development which enabled the flashing light to be fitted with different characteristics such as timing, intervals, pauses and number of flashes emitted. The ability to differentiate the timing and number of flashes given out from any lighthouse had been one of the major technological breakthroughs of the late 18th century, particularly on the crowded coasts of the British Isles. It enabled mariners approaching a coastline to know exactly which lighthouse they could see.

Permanent electric lighting was first installed in an English Lighthouse at South Foreland, near Dover, in 1872, following experimental trials there since 1860. This lighthouse became a centre for experimentation with electric lighting technology. James Barnet visited South Foreland lighthouse and the Chance Brothers works, during his only visit to Europe, in 1885.

There are now literally thousands of lighthouses around the world. The Lighthouse Society of Great Britain, for example, has 650 entries for the United Kingdom. Australia has at least 133, while there are 50 late 19th century lighthouses in Cuba and 35 in the Philippines. New Zealand experienced a similar period of lighthouse development as did Australia. The French erected a tall lighthouse on the reefs to the south east of New Caledonia in the 1860s.

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7 Internet: www.soton.ac.uk
4 Bridges, P. James Barnet, pp. 130
3 Internet: www.soton.ac.uk
4.2 Early Australian Lighthouses

The history of lighthouse construction in Australia is directly related to the settlement patterns and the shipping routes that supported them.

Despite a rapid increase in shipping, especially after sealing began in Bass Strait in 1798 and the American whalers appeared in Australian waters in 1803, and the associated increase in the number of ship wrecks, no modern navigational aids were erected along the coastal route to Port Jackson until 1818. In the early decades Port Jackson was the major focus of shipping movement and a signal station had been erected on South Head in 1790, followed by an occasional signal fire in 1793 and an iron fire basket, set on a tripod, that was established in 1794, to mark the entrance to the harbour.

With the development of agriculture and mining along the Coal (later Hunter) River, increasing shipping over the bar at Newcastle created a need for greater navigational aids. In 1804 a coal burning beacon was established on Signal Hill. This was formalised as a large iron beacon stand in 1821, which burned half a ton of coal every night. It was only in 1858 that the present lighthouse was erected on the nearby Nobby's Head, although it has since undergone modification.

The first formal lighthouse erected in Australia was the Macquarie Lighthouse at South Head in 1818. Despite many of the early Governors having a naval background, it was left to Macquarie to add a new lighthouse to his grand plans for the Colony. The background reasons for the provision of a lighthouse at such a time are not clear but Macquarie cited the increasing levels of shipping using the Port in his correspondence to the Secretary of State for the Colonies.

The Macquarie Lighthouse was designed by the architect Francis Greenway. It established in Australia a number of the architectural themes that were to be repeated in other lighthouses later in the century, most typically by Barnet. These were most notably a classical style and attached, symmetrically arranged buildings connected to the base of the cylindrical tower. In reality the Macquarie Lighthouse fitted closely into the emerging pattern for land based lighthouses in Britain, the masonry tower topped by a lantern house and small scale support buildings at the base, providing accommodation for fuel and quarters for those who manned the light.
To pay for the light Macquarie imposed dues on each ship entering Port Jackson, continuing the well established British tradition. Lighthouses were typically funded directly from shipping dues, enabling them to escape the more common restrictions of government capital works funding. Such restrictions were a major part of the reason for the slow development of projects in Australia, as the British Government struggled through a period of economic hardship after the Napoleonic Wars.

Once Bass Strait had been identified, in 1798, as a means of cutting hundreds of miles off the journey to Sydney, shipping traffic in the narrow and dangerous straits increased dramatically, as did the number of shipwrecks. Van Diemans Land was settled as early as 1803, with both Hobart and Launceston developing as active ports.

In 1825 a pilotage and harbour dues committee was established in Hobart and by 1832 a lighthouse was established on the Iron Pot, a rocky islet at the mouth of the Derwent River. The following year a lighthouse at Low Head, near the mouth of the Tamar River on the north coast was completed. Cape Bruny Lighthouse, on the south east coast followed in 1838 to provide additional navigation for the ships approaching Hobart from south of Van Diemans Land.

In 1835 a party of settlers, led by John Batman, landed on the site of the present day Melbourne and within a matter of months the Port Phillip Bay District began to grow as an important settlement. By the mid 1840s shipping through Bass Strait had increased to the point where additional navigational aids were required. Over the next decade numerous lighthouses were erected along the Victorian coast and on the islands in Bass Strait, including Shortlands Bluff at Queenscliff (1842), Swan Island (1845), Goose Island (1846), Cape Otway (1848) and Deal Island (1848), amongst others.

Despite the growth of settlements throughout south east Australia, navigation and all related matters such as lighthouses remained under the control of the Colonial Office in London, even after the eastern colonies were granted a degree of independence in the 1850s. In 1856 the Board of Trade in London undertook the task of superintending the erection of colonial lighthouses. One of the reasons for the centralised control was to ensure that individual lighthouses did not display a character of light that matched another, thereby creating confusion for mariners.
Despite the control exercised by London the emerging Australian colonies were considering the joint management of common interests from as early as 1847, when a committee of the Privy Council suggested that one of the powers of the future colonies should cover the erection and maintenance of lighthouses. At that stage there was a suggestion that the colonies should federate, a move that would wait for another half century.

In May 1856 Sir William Denison, Governor of NSW and Governor General of the Australian Colonies suggested the appointment of a board of delegates from the four eastern colonies to be responsible for the erection and maintenance of lighthouses. This was an obvious recognition that the problems of navigating through Bass Strait and along the south eastern coast were ones in which all the colonies had a shared interest. While little co-ordinated progress was made, given the financial interests of the newly established individual colonies, recommendations were made for a number of new lighthouses along the coast, including one at Cape St George, near Jervis Bay.

Despite the failure of that first inter-colonial conference in 1856, the idea of a joint commission responsible for all Australian lighthouses held some appeal and a second conference was held in Melbourne in 1864, but again failed to establish a joint commission and it was not until 1873 that full inter-colonial cooperation was achieved. Meanwhile, NSW contributed to Cape Moreton (1857) and Gabo Island (1862) lighthouses from some sense of joint responsibility. Cape Moreton was possibly considered part of NSW prior to the formation of the Queensland state.
4.3
The NSW Coastal Highway

On the rugged coastline of New South Wales, as elsewhere in Australia, the lighthouses were very much representative of the order of civilisation to 19th century travellers, in this case representing British Imperial Power. The very constancy of the lights, the location on prominent headlands and islands along the coast, confirmed Australia and more particularly in this case, coastal New South Wales, as a bastion of European civilisation, particularly after the long and arduous journey from Britain.

The confluence of a strong client, a well established government architect, an increasing need and adequate funding in late 19th century NSW was unique in the national experience. It produced a series of lighthouses which are more cohesive architecturally than anywhere else in Australia.

Initially lighthouse administration in NSW was under the control of the Master Attendant of Her Majesty's Dockyard and Harbour Master of Port Jackson. In 1843 Lieutenant Merion Marshall Moriarty was appointed Port Master to the Colony of NSW. Moriarty's brother, William, held the position of Port Officer in Hobart at various times between 1832 and 1850 and was the driving force behind the establishments of early lighthouses in Tasmanian waters. After 1857 the position became known as the Superintendent of Lights, Pilots and Navigation. Responsible Government for NSW also saw the appointment of Alexander Dawson as Colonial Architect.

On 20 August 1857 the wreck of the DUNBAR off South Head, with the loss of 121 lives, focussed the need for an improved identification of the entry to Port Jackson. Later the same year the CATHERINE ADAMS was lost against North Head, with 21 people lost. As a result the Hornby Lighthouse was erected at a low elevation on the extreme point of Inner South Head in 1858. This lighthouse became only the second permanent such structure along the coastline of what is NSW. Along with its cottages, which were built several years later, Hornby is the oldest Lighthouse in the NPWS collection. It was designed by Alexander Dawson.

Dawson was also responsible for the lighthouse at Cape St George which had been recommended by the 1856 conference but was not completed until 1860.
There were many accusations that this lighthouse, which also utilised the symmetrical composition of attached building elements, was erected in the wrong location and it was eventually replaced by Point Perpendicular, on the northern headland of Jervis Bay, in 1899.

In 1860 a 33 year old architect, James Barnet, who had arrived in Australia in 1854 joined the Colonial Architect's Office in Sydney. He was appointed as Second Clerk of Works, effectively third in charge of the relatively small staff complement. Barnet was appointed Acting Colonial Architect in 1862 and in 1865 assumed the full position, holding it until his forced retirement in 1890.

While it has not been definitively established, Barnet may have been responsible, within the Colonial Architect's Office, for the design of the small timber framed and clad lighthouse at Twofold Bay near Eden in 1862. He would certainly have been aware of it. This lighthouse was the official Government response to the only private lighthouse tower in NSW, erected on a nearby headland by Benjamin Boyd in the 1840s. The 11 metre high tower was symmetrically incorporated into the timber living quarters, continuing the traditional arrangement that Greenway had used at the Macquarie Lighthouse in 1818. The elegant tower commenced from a square base and rose into an octagonal plan. Barnet was to use the same architectural composition for the nearby Green Cape Lighthouse in 1883, this time in concrete.

Another significant change occurred in 1862 when the Department of Harbours, Lighthouses and Pilots was established, with Francis Hixon as Superintendent. Hixon had spent his early years in the Royal Navy, during which he helped survey parts of the east coast of Australia. It was Hixon's ambition to establish a network of lighthouses that would illuminate the coast of NSW "like a street with lamps". Hixon went on to become the President of the Marine Board of New South Wales when it was established by the 1871 Navigation Act. The Board was charged with the responsibility for the regulation of lighthouses, superintendence of lights and other sea, harbour and river lights.

In his 1988 biography James Barnet Colonial Architect, (pp 103) Peter Bridges noted that Barnet's duties brought him into close contact with many of the other department heads and he appeared to be on especially friendly terms with Hixon. Barnet and Hixon travelled together to select the sites of several of the lighthouses, including Montague and Barrenjoey.
For the critical 30 year period after 1860, both Francis Hixon and James Barnet were powerful figures in charge of powerful Government agencies, each charged with its component of the development of maritime safety, navigation and lighthouse construction. This level of continuity in both management and design was not enjoyed by any of the other Colonial Government agencies in Australia in the latter decades of the 19th century.

In addition to the successful relationship between the two men, the other principal factors were the need for new lighthouses due to increasing coastal and international shipping traffic, improved lighting technology and the availability of funding for public works projects on a massive scale, from the State Government.

Point Stephens appears to have been Barnet's first experience of a major lighthouse, the design of which has been attributed to the Colonial Architect Dawson by Clive Lucas Stapleton and Partners in their Point Stephens Conservation Plan. It was located at the entrance to Port Stephens and was first exhibited in 1862. At the time Barnet was a newly arrived member of Dawson's relatively small office. This tall, free standing circular tower of white painted stone, was the first in New South Wales to adopt the classic wave swept model developed by Smeaton at Eddystone Lighthouse in the English Channel in 1759. At the same time William Wardell, who had arrived in Victoria in 1858 and was appointed chief architect the following year, designed the tall slender lighthouse for Gabo Island on the same model. It is possible that Barnet and Wardell were familiar with the UK lighthouses before they arrived in Australia.

From 1872, commencing with the lighthouse at Fingal Head, Barnet was to be responsible for the major period of lighthouse construction in the State. Even for those erected after he left the Colonial Architect's position in 1890, his design influence remained. Major lighthouses, with associated cottages were erected at Sugarloaf Point (1875), South Solitary Island (1880), Barrenjoey (1881), Montague Island (1881), a replacement for Greenway's Macquarie in 1881, Green Cape (1883), Smoky Cape (1891), Point Perpendicular (1891), Cape Byron (1901) and Norah Head (1903).

Many other smaller lights, particularly along the north coast completed the so-called "coastal highway".
4.4 Living At The Lighthouse

Each of the NPWS Lighthouse complexes contains living quarters and associated buildings, fence lines, gardens and pathways to support the operation of the Lighthouse (except for Cape Bailey). As groups of buildings, supported by their immediate gardens and lawns, these complexes form unique cultural landscapes or precincts that usually contrast with the larger natural landscape and coastal topography in which they are set.

While the designs of the individual Lighthouse towers is distinctive, it is the cohesive, late 19th century Victorian Georgian, NSW Colonial Architect’s style of the associated cottages that provides the unique, architectural identifier for the NSW “Coastal Highway” Lighthouses in the international context.

The daily life of the Lighthouse Keepers was essentially driven by a combination of the operational role, the nature of the technology and the need to keep the place in good order as an essential navigational facility. The 19th century lights were generally powered by oil and turned manually. Typically the lights were operated on four hour shifts, requiring a three man operation throughout the night. As most of the Lighthouses were located on remote headlands or islands, far from settlements, the staff were required to live at the complex.

They were operated from sundown to dawn and the Keepers took their tasks very seriously, ensuring that the operation continued every night of the year. During the day the lighting equipment had to be kept polished and the glass of the lantern house cleaned. In addition, the harsh climate meant that metal work would be regularly polished and the exteriors of the buildings painted every few years. Regulations usually specified that only married men could staff the Lighthouses, ensuring that there was some harmony for the isolated but compact communities. The lifestyle and working patterns followed well defined routines and unexpected inspections kept the staff ever vigilant.

Accommodation at the NPWS Lighthouses and the other principal lights along the NSW coast comprised a three bedroom cottage for the Head Keeper and two, semi-detached two bedroom cottages for the Assistant Keepers. Typically the cottages are located within a close proximity of the tower, to facilitate communications during the evening shifts. The Head Keeper’s quarters was generally the closer to the tower.
In places such as Barrenjoey and Smoky Cape the cottages are set below the ridge to provide some weather protection. At Sugarloaf Point large retaining walls were cut into the side of the lee ward slope. At South Solitary, there was a series of walls providing wind protection along the exposed pathways. Generally each cottage was enclosed by fencing or walls to define an area of private space.

Personnel would be regularly transferred around the various lighthouses, often on a two or three yearly rotation. This practice continued until closure of most of the lighthouses in the 1990s. Although the Commonwealth Government managed all Australian Lighthouses in the 20th century, the process was still organised on a state by state basis. (Pers. Comm. by retired keepers) The Lighthouse Keepers therefore could only transfer within the NSW sites. Accordingly, it was common for many to have served on four or five of the stations along the NSW coastline.

In addition to the cottages, most Lighthouse complexes also had a range of support buildings. These could include a flag locker, fuel store, stables building, telegraph station, weather office, or other stores buildings. There is no typical pattern or layout for the support buildings within the NPWS collective resource.

Given the isolated lifestyles of the Keepers, and in cases such as South Solitary and Montague Islands, the uncertainty of regular re-supply, each of the early complexes had to be relatively self sufficient. Kitchen gardens were common as were citrus groves or other fruit trees, often scattered through the adjacent bushland. There were usually domesticated animals such as chickens, cattle, and goats for food, while horses provided transport for some of the land based staff. The animals were often controlled by fencing that extended beyond the immediate confines of the buildings precinct, such as at Point Stephens.

The intensity of the development in the immediate vicinity of the lighthouse inevitably meant that any Aboriginal sites within these limited precincts have not survived.

The original construction of many of the Lighthouses involved the shipping of materials by boat to the isolated locations. Often the jetty or landing place was connected to the main site by a narrow gauge railway or trolley track. At Seal Rocks bullock teams transported the materials to Sugarloaf Point. In some cases, such as Montague and South Solitary, Point Stephens and Green Cape, these landing places remained in active use for re-supply for many decades. In
4.5 National Management

An inter-colonial conference held in Sydney in early 1873 decided that the principal officers of the marine departments of all the Australian colonies would meet to consider the state of the coastal lights, their management, future locations and how best to equitably share the general operations of lighthouses. The conference also concluded that, on the basis of the information available, the coastal lights answered the function for which they had been erected and compared favourably with those in other parts of the world. The need for a total of 24 new lights was identified, including Green Cape, Montague Island, Bowen Island, Barrenjoey, Sugarloaf Point, South Solitary Island and Point Danger in New South Wales.

Francis Hixon, who chaired the conference was so committed to maritime safety that he successfully achieved the construction of most of the lighthouses identified, although NSW was already committed to the erection of some even before the conference.

While the conference could agree on a successful system for joint maintenance, the decisions taken, when applied to each colony, together built up a rough national chain of navigational aids. There were also some underlying ideas that were to serve as a rudimentary national policy in the absence of federation. Each colony was now to be responsible for the maintenance of the lights in its own waters, although several, such as Gabo Island, would be jointly administered. A select few which provided general benefit to a number of colonies would be jointly funded.

The decisions taken at the 1873 conference had the most far-reaching effect on Australian lighthouses during the 19th century and laid the foundation for Commonwealth administration after 1915.

The 1894 Australasian Maritime Conference, held in Hobart, recommended that the whole system for major lighthouses should be funded by the colonies on a pro rata basis depending on population.

In 1897 the Adelaide constitutional convention agreed that the Commonwealth Government would have responsibility for lighthouses and that they would be largely supported by the imposition of dues on the owners and masters of ships that benefited from the lighthouses. This decision continued the tradition first established in England in the Middle Ages.

Unfortunately the newly established Commonwealth Government suffered from a funding crisis as a result of the 1890s Recession. It was not until 1915 that any State lighthouses were taken over by the Commonwealth government. In preparation for the takeover, the Government had appointed Commander C R W Brewis, a retired Royal Navy surveyor to report on the condition of all existing lighthouses and to recommend any additional ones. Brewis' reports, which were completed by 1913 were the first comprehensive examination of the Australian marine navigational aids system.

The Commonwealth Lighthouse Service was established in 1913 and an English engineer, Joshua Ramsbotham appointed as the first Director. The Australian coastline was divided into four administrative districts and the head office established in Melbourne. Ramsbotham served as Director until 1926, with his two greatest achievements being the introduction of steel towers with unattended lights along the Great Barrier Reef and the consolidation of light dues as a means of self funding the Service.

On July 1st 1915 the Commonwealth officially accepted responsibility for 179 marine marks, comprising 104 manned stations, 18 automatic lights, one light buoy, 16 unlit buoys and 40 unlit beacons and obelisks. Despite the takeover, the States and Commonwealth continued to argue over valuations and title transfers. In 1927 there were still disagreements over aspects of the Barrenjoey lighthouse.

From the outset most of the existing keepers transferred to Commonwealth service. Brewis had advised that a small fleet of steamers be acquired to service the lights. By the mid 1920s purpose built ships were under construction and the basis of a national system had been firmly laid. By 1934, after the demarcation between Commonwealth and State responsibilities had been redefined, the Lighthouse Service had a clear direction and a keen sense of responsibility. These were to serve it well for many years.

The period from 1913 to 1939 marks the beginning of the great change of emphasis from manned to automatic lighthouses. Despite limited funding and a shortage of equipment a total of 60 additional lights were established on the Australian coast during that period, the greatest number of any period. Many were small unattended beacons and nearly all were built in remote locations, completing the ring of navigational aids around the coastline. Much of the change was driven by the introduction of vessels with deeper draughts which were forced
to sail further to seaward and more sophisticated forms of navigation, such as radio-beacons.

Of all the lighthouses, those in New South Wales were considered to be in the best condition and with the greatest coverage, thanks to the enormous amount of work undertaken by the Colonial Government between 1858 and 1903. In 1920 Ramsbotham said that the work done in NSW would compare favourably with anywhere in the world.

The only lighthouse erected in NSW between the wars was an automatic light in 1937 to serve the newly opened Port Kembla. This was the first lighthouse erected in the State since Norah Head in 1903. Other lights were considered in the years before the Second World War, including one for Cape Baily at the entrance to Botany Bay. However, it was not until 1951 before this lighthouse was constructed, and then with a second hand lantern house atop a squat, square concrete tower.

Following Ramsbotham's resignation in 1926 the Lighthouse Service was merged with the Navigation Branch to form the Marine Branch in the Department of Trade and Customs. Several other administrative changes took place in the years leading up to World War Two. A Lighthouse Advisory Committee was formed in 1931 and operated until 1967. One of its early acts was to recommend that the Barrenjoey be discontinued. Such was the level of protest that an automatic light was substituted and the staff withdrawn.

Much of this period was spent with decisions which could increase the efficiency of existing lights while saving money. If automation would save on salaries then the Keepers would be released. Many of the lights were also increased in power during this period. Radio beacons for navigation were trialed at Cape Otway in 1937, with mixed initial reactions.

During the early years of the war most lights remained burning, although after the Japanese attacks on Pearl Harbour in 1941, lights were under the control of the Navy and were only turned on as required. An example of how the balance had changed is evidence that by 1941 there were only 57 manned lighthouses and 118 automatic lights, buoys and lightships.
4.6 Defence And Surveillance

During the Second World War the headlands and harbour entrances on which were located many of the lighthouses became strategic positions for coastal defence. Major coastal artillery batteries were erected along the NSW coast to protect the major harbours of Wollongong, Sydney and Newcastle.

Sydney Fortress was the major installation, with a series of mutually supporting gun batteries located on either side of the harbour entrance. Inner South Head was equipped with a series of searchlight batteries, including one concrete bunker adjacent to the base of the Hornby Lighthouse tower. These installations continued a long tradition of gun batteries on that headland, stretching back into the latter decades of the 19th century. Many of these defensive works survive.

Port Stephens became a major training area for amphibious landings and was protected by a series of 6 inch guns at Fort Tomaree, the headland between Point Stephens and the entrance to Port Stephens.

Smoky Cape Lighthouse saw the installation of what is thought to be a radio installation, close to the base of the tower and an encampment set behind the ridge several hundred metres inland.

While other military activities have not been identified the role of the vantage point that had long been associated with the headlands returned and added yet another cultural layer to the precincts around several of the Lighthouses.
4.7
Changing Technology

In the post war years the bureaucratic arrangements for the lighthouse service changed several times before settling in the Department of Shipping and Transport in 1951, remaining there until 1972, when the department became Transport Australia. By the late 1980s it had become the Department of Transport and Communications.

During the post war decades the provision of navigation aids and the upgrading of existing ones continued steadily. In 1958 there were 56 manned lighthouses and 131 unattended lights. Radio-beacons operated at six manned stations. In 1949 the Commonwealth took control of the lighthouses in Papua New Guinea, with 78 aids there by 1963, none of them being manned.

Since 1945 advances in light source technology meant that the incandescent globe, until then an unsatisfactory device, could replace the compressed kerosine-vapour and incandescent mantle lamps. As a result the strength of the main lights, when concentrated through the original catadioptric lens, was as high as 3 million candelas. Great savings in labour also resulted.

The nationwide distribution of power lines assisted in the provision of electricity to lighthouses, with those that were too remote or on islands being supplied with diesel generators. With the old kerosine lights the keepers had to maintain watch all night, meaning three staff were required. With electric power it was no longer necessary to keep the night watch. The reduction of other duties such as keeping of logs progressively became redundant as larger ships sailed further from the coastline and were impossible to identify visually.

By 1980 solar panel power systems were progressively being introduced. General modernisation of lighthouses progressed steadily throughout the 1970s and 1980s, with steel framed towers being introduced in the 1970s for new stations and on occasions to replace existing structures, such as eventually took place at Green Cape. Communications equipment was another aspect of the upgrading process. Several of the lanterns are now solar powered, with solar panels fitted to either the tower or set around its base.

A wide ranging Commission of Inquiry, established in 1974, proposed a major upgrading programme for the modernisation and expansion of the coastal system. Under the plan, which commenced in 1979, 114 existing aids were to be modernised and 17 major stations destaffed. A 1983 Standing Committee again looked at the manning issue and commenced the process that lead to the automation of most coastal lighthouses, including most of those in NSW by the early 1990s.
4.8 Transfer To NPWS Management

The 1990s have seen a process whereby the lighthouses along the NSW coast have progressively changed from being operational aids for navigation by international shipping to use by coastal and recreational craft. The management of the lighthouse complexes has progressively been transferred from the Commonwealth to various State Government agencies, including NPWS.

From about 1975 there was a programme of automation and subsequent destaffing of Australian Lighthouses. South Solitary was automated in 1975. The nationwide process was given political sanction with the 1983 report of the House of Representatives Standing Committee on Expenditure, entitled Lighthouses: Do We Need to Keep the Keepers? The findings recognised the cultural and natural values of the Lighthouses but identified significant cost savings that would accrue from their automation.

It recommended a policy of consultation between the Commonwealth and State bodies regarding the manned presence, which was seen as beneficial for their conservation, and that all reasonable measures be taken to continue manning, provided others pay the costs.

Initial negotiations about the future transfer from Commonwealth ownership began with discussions between AMSA and the Australian Heritage Commission. The AHC was keen to ensure that any future owners would have a good understanding of the cultural values and implications of the Lighthouses. A series of conservation management plans were commissioned by AMSA. In NSW CMPs were prepared between 1993 and 1996 for all the Lighthouses which had associated cottages, with the exception of Inner South Head and Montague Island. No CMP was prepared for Cape Baily.

Negotiations commenced in the mid 1990s with NPWS about the transfer of a number of lighthouses along the coast, some of which AMSA would continue to operate as automated navigational aids. Eventually the nine lighthouses that were located adjacent to or within National Parks or other areas directly managed by NPWS were identified for transfer to the Service. A Heads of Agreement between the Australian Maritime Safety Authority and the NSW Government became the basis for this transfer process.

The majority of the remainder, including Sugarloaf Point, were transferred to the NSW Department of Land and Water Conservation or retained initially by AMSA. The transfer process was generally completed by mid 1997, although at the time of the preparation of this report, negotiations were continuing over South Solitary, where the cottages and the bulk of the island have been the responsibility of Australian Property Group. The cottages at Barrenjoey were still held by various individuals on long term residential lease arrangements with AMSA.

The transfer process was thus spread over a number of years. The Cape Byron cottages were transferred to the Cape Byron Headland Trust in the late 1980s. Montague was passed to NPWS in the late 1980s, others such as the Cape Byron tower, Smoky Cape and Green Cape waited until 1997, although NPWS were able to access the places for initial works. South Solitary Island and Barrenjoey have yet to have the transfer process finalised.

The Cape Baily tower, which has no supporting cottages or other buildings, is leased back to AMSA. The historic towers at Cape Byron, South Solitary Island, Smoky Cape and Montague Island are also leased back to AMSA, as is the new tower at Green Cape.

Negotiations for the eventual transfer of Sugarloaf Point to NPWS were dependent on the resolution of Aboriginal heritage issues for the surrounding land.

4.9 Evidence From The Past

It is likely that individual Lighthouse precincts contain sub-surface evidence from the period of construction and operation, particularly in relation to infrastructure. It is unlikely that any sites of Aboriginal archaeological value survive in the immediate vicinity of the Lighthouse complexes.

At most of the Lighthouse sites there are the footings and bracing points of the flagstaffs, although all of these important visual and functional elements have been demolished, with the exception of Montague Island.

Other evidence from the past includes early jetties, cottages and tramways used for the original construction, site works, pathways and infrastructure and gardens. On some sites there are the graves of either staff, their families or victims of shipwrecks in the vicinity. It is highly likely that prehistoric evidence of Aboriginal occupation sites may also be present at these places.
4.10
Initial NPWS Management Activities

As early as 1992, Denis Gojak, NPWS Archaeologist, prepared an overview of the NSW lighthouses, assessing their significance and identifying the common features and characteristics. In 1995, Miriam Stacy, NPWS Conservation Architect prepared a detailed analysis of the likely catch-up repair costs and continuing maintenance expenditure that would be required for each Lighthouse. This information provided the background to an allocation of initial funding for each Lighthouse to enable repairs to be implemented to overcome either maintenance that had been deferred in the final years of AMSA management or to remedy the neglect that was inevitable if the lighthouse had been destaffed some years earlier.

Initial conservation works, repairs, maintenance and in some cases adoption works have been undertaken on a number of the NPWS lighthouses in the initial period. These include Smoky Cape, Point Stephens, Inner South Head, Montague Island and Green Cape. Cape Byron has been well managed by the Headland Trust, while South Solitary has not been actively managed partly due to the difficulties of access and as negotiations are not yet finalised between State and Federal Governments. Barrenjoey cottages are largely managed by the existing tenants, while those at Point Stephens were extensively destroyed by fire in 1991.

Under DLWC management, Sugarloaf Point lighthouse continued to be maintained by the resident caretaker.
5.0
The Constructed Image

5.1
The Lighthouse Towers

The ten historic Lighthouses now managed by NPWS are as follows:

1858  Inner South Head Lighthouse Cottages
1862  Point Stephens
1875  Sugarloaf Point
1880  South Solitary Island
1881  Barrenjoey
1881  Montague Island
1883  Green Cape
1891  Smoky Cape
1901  Cape Byron
1951  Cape Baily

The Hornby Lighthouse tower at Inner South Head is not controlled or managed by NPWS, and it is not legally located within the Sydney Harbour National Park. NPWS control only the Lighthouse Keepers' cottages and the general precinct. This report includes discussion of the Hornby tower in order for consistency within the overall collection of historic lighthouses along the NSW coastline. It also recommends that NPWS seek to gain management control over the tower as it has the potential to become an integral part of the NPWS collection.

Most of the lighthouses, with the notable exception of Hornby and Point Stephens, were designed by or influenced by the Colonial Architect James Barnet, giving them a remarkable architectural consistency, despite the use of quite different architectural devices in different combinations. All are currently located within or adjacent to National Parks, Nature Reserves, Marine Parks or State Recreation Areas, giving NPWS a strong management role over the surrounding or adjacent landscape.

The other major NSW lighthouses with associated cottages are:

1880  Macquarie Light on South Head
1891  Point Perpendicular
1903  Norah Head

Macquarie Light was originally erected in 1818 to a design by Francis Greenway. It was the first major lighthouse in Australia and was rebuilt in 1880, in a closely matching design, by the Colonial Architect James Barnet, due to its dilapidated condition.
Nobby's Head Lighthouse in Newcastle (1858) has been added to and the precinct developed with later buildings. Point Perpendicular replaced the incorrectly sited Cape St George Lighthouse (1860) at Jervis Bay.

There are other lighthouses located at intervals along the NSW coastline that were erected in the latter half of the 19th century.

In general however, these were smaller structures and were not equipped with associated cottages. Other lights have been replaced or erected by AMSA in the latter decades of the 20th century. These tend to be of a more functional design and are of lesser visual appeal than the traditional structures.

The entire collection of major 19th century NSW lighthouses achieved a consistency which was unmatched elsewhere in Australia. For the majority of them, Barnet's exceptional design influence with the compositional strength of the towers, complimented by the consistency of the associated cottage groups, lends an increased value when compared to historic lighthouse complexes in other States.

In essence the design of any lighthouse tower has two common threads, a masonry shaft capped by a balcony and a pre-fabricated faceted lantern tower, usually of two storeys and capped with a ventilated hemi-spherical or conical roof to allow the lamp gases to escape. The various orders of lantern, related to their illumination power, required different sized optics and therefore different sized lantern houses. Despite an enormously varied range of styles and compositions world wide, these two components continually appear. The balcony served two major functions, as an observation platform and as access for cleaning the outer face of the lantern house glazing.

Throughout the 19th century the supply of the lantern houses and optics was dominated world wide by several manufacturers in Europe, most notably in the Australian context by Chance Bros. of Birmingham. This relatively limited source of supply usually meant that there was a general stylistic consistency of lantern houses despite the variation of the towers on which they were located. It has not been determined if the manufacturers such as Chance Bros. actually supplied pattern books for the supporting lighthouse towers, since there is a degree of commonality in the design of the towers, despite the international variations.
Another major source of difference was the actual height of the towers. In functional terms the critical factor was the height of the optic above sea level, in order to gain the maximum visibility distance for the light. If the lighthouse was located on a high bluff, as is the case at Barrenjoey, South Solitary or Smoky Cape, the tower is relatively squat. Those towers located on low lying ground, such as Point Stephens and Green Cape adopted a relatively tall and slender tower.

Dawson, Barnet and those who followed them in the Colonial Architects office, used several primary architectural devices, often in different combinations, to give the lighthouse towers their distinctive character. There is no apparent chronological development pattern in the architectural styles of the towers, as the combination of motifs seemed to respond primarily to the siting and scale of the tower.

- The taller towers tend to be slim and cylindrical with relatively unadorned balconies supported on simple moulded cornices, often with an additional string course below.

- The shorter towers tend to have the heavily bracketed balconies.

- Most of the tower balconies have the outward leaning gunmetal balustrade.

- The attached oil store, which was common in NSW but rarely found elsewhere in Australia, was often of some architectural pretension and usually well integrated into the design of the tower. On occasions it was symmetrically arranged, on others it was asymmetrical.

- The external staircase, sweeping around the base of the shaft to an entry part way up.

- An internal spiral staircase, usually constructed from prefabricated cast iron.

- The materials chosen for the towers varied from either face or rendered stone and mass concrete to concrete block, depending in part on the availability of local materials and ease of supply.

Point Stephens and Montague Island are the best NPWS examples of the tall tower with simple balcony moulding and metal balustrades, although the combination was also used at the relatively squat Hornby and South Solitary lights.
Cape Byron has the unadorned balcony support but the later granite balustrade.

Smoky Cape, Sugarloaf Point and Barrenjoey are the best examples of the squat towers with the heavily bracketed balcony and metal balustrade, which is often considered as the major trademark of Barnet’s lighthouses. Green Cape adopted a more refined version of the bracketed balcony combined with the metal balustrade, despite its being the tallest tower in the collection, in this case Barnet developed an unusual combination of a square base that transforms into an octagonal tower, possibly basing it on the earlier timber tower designed for the small lighthouse just to the north in Twofold Bay. He took the octagonal composition even further at Smoky Cape.

Attached oil rooms were used at Smoky Cape, South Solitary, Green Cape, Barrenjoey and Cape Byron, the latter being the only one with the symmetrical composition that Barnet had used when he replaced Greenway’s Macquarie Lighthouse.

The materials used for the construction of the towers varied, and when expressed in the architecture made quite distinctive statements. Barrenjoey is the only face sandstone tower, Montague the only one of face granite, with the stone being quarried on the Island and the tower actually standing on an enormous granite outcrop. The majority of the lighthouse towers however, were given a rendered and painted finish. Point Stephens is painted stonework, as is presumably Hornby. Sugarloaf Point is rendered brick. South Solitary, Smoky Cape and Green Cape are rendered mass concrete, while Cape Byron is rendered concrete block. The more modern Cape Baily is painted in-situ concrete.

The typical lighthouse tower is fitted with an internal spiral or geometric stair, usually constructed from prefabricated cast iron and following the internal curve of the tower walls. In these cases the tower entry doorway was located at or near ground level. External staircases are a feature of several of the older towers but for different reasons. At Hornby the initial rise of stair is set on the outer face and follows the curve of the tower to the first level before moving to the interior. Barnet used a similar stair at Sugarloaf Point, the first of his typical models, in 1875, but did not return to this idea. Point Stephens, which is attributed to Alexander Dawson, has a straight external stair to the “piano nobile”, from whence the internal spiral stair commences.
The Cape Baily tower is in a class of its own in comparison with the other NPWS Lighthouses. It was erected in 1951 as a squat, square concrete tower but used a second hand 19th century lantern house, the provenance of which has yet to be identified.

The original internal decorative schemes of the lighthouses has not survived, primarily due to the cyclical repainting that was a feature of the regular routine of the Keepers. Various Lighthouse towers have been painted in decorative schemes under the new NPWS management, particularly Green Cape. In general however the colours and decorative schemes adopted have been based more on extant previous schemes than on any hard evidence of original schemes.

Most of the towers have retained a high degree of integrity, although almost all the optics or light sources have been upgraded during the long decades of active service. Point Stephens has had its original lantern house and balcony railing replaced.

CHANCE BROS. TECHNICAL SKETCH OF LANTERN HOUSE AND OPTICS (18)
5.2 Lighthouse Cottages

The majority of residences at the NPWS Lighthouses follow a reasonably distinctive model, with some notable exceptions for the early sites. The strict hierarchy and three man crew requirement generated a formal structure for the provision of staff quarters. The Head Keeper’s cottage usually had three bedrooms and was free standing and located closest to the tower. The two Assistant Keepers’ dwellings were typically arranged in a semi detached arrangement of two bedroom cottages.

Point Stephens was the only time in NSW that the three associated Keepers’ dwellings were combined into one continuous building, forming a terrace of three cottages. All future cottage groups were to adopt the distinctive Victorian Regency characteristics of the late 19th century NSW Colonial Architect’s residential style that was widely used in Police Stations and other public sector dwellings throughout suburban and country areas of the State.

The cottages at Hornby followed this general pattern, although the Assistant Keepers’ quarters are located much closer to the tower than the Head Keeper’s cottage. In both cases the buildings were extended to provide additional accommodation. Only at Point Stephens were all three of the cottages conjoined into a single terrace of houses, and then with Victorian Gothic Revival features such as tall gables. This combination makes them unique in NSW.

The NSW Lighthouses have a general consistency which is unusual in Australia. Since most were built after 1870 they generally adopted a consistent format of the main body of the house in a symmetrical form with surrounding verandahs and a linked kitchen, pantry, store, washroom wing with an enclosed porch or a linking walkway. Given the often remote and exposed locations other typical features include:

- Partial enclosure of verandahs by screens to protect portions of the verandahs from the wind.
- Storage areas with access only from the verandahs.
- A detached service block at the rear of the main house with access only from the verandah.
- Rear yards enclosed by high walls, often extending the line of the outbuildings.
Most of the dwellings also featured wide internal corridors. Typically the only internal fittings, other than in kitchens and bathrooms were low built in cupboards on either side of the chimney breasts in most bedrooms and sitting rooms. Internal finishes generally comprised plastered masonry walls, timber floors and boarded or plastered ceilings.

The dwellings generally adopted the overall massing of a principal hipped roof with separate roofs over the verandahs, and tall chimneys. In some cases such as South Solitary and Montague Islands later re-roofing programmes altered that relationship. Roofing materials seemed to vary from slate to terra cotta tiles. Given the harsh climates, roofs have usually been replaced several times, most recently with the ubiquitous corrugated compressed asbestos cement. More recently many of the roofs have been replaced with corrugated zincalume sheeting or in the case of Cape Byron with terra cotta tiles.

Most of the cottages, with the exception of Barrenjoey, have been rendered and painted white externally, as the traditional colour scheme to match the white painted towers. At Cape Byron the decision was taken recently to repaint the buildings externally in a buff colour, with the joinery in a deep crimson. This particular decision seems to have been taken in the face of paint scrape evidence to the contrary, which indicated a tradition of white as the primary external wall colour. Internally the walls were painted in typical institutional Victorian schemes, although numerous repainting programmes have generally obscured the physical evidence of earlier colour schemes. There was a tendency in later decades for Keeper’s to undertake internal decoration to their own tastes.

In general the cottages appear to have retained their external integrity, with the exception of those which now enjoy different roof and verandah compositions. The most typical alterations were the provision of additional bathroom accommodation on the enclosed rear verandahs and progressively upgraded kitchen and other service equipment. At one stage in response to a central directive, the two Assistants’ cottages were altered internally to make one a three bedroom arrangement. This was done by breaking through the party wall and then blocking off the original corridor door to make the bedroom of the former neighbour now part of the other dwelling.

SUGARLOAF POINT COTTAGES (GBA)
5.3 Support Buildings And Facilities

All of the 19th century Lighthouses were originally equipped with a flagstaff for signalling passing ships. Without exception these strong visual components have been removed, although the bases and fixing eyes usually remain. Associated with the flagstaffs were small, often free standing flag lockers which were treated with some architectural distinction.

Other support buildings included stables, meteorological offices, telegraph stations, store buildings, animal pens and fuel stores. Each Lighthouse complex was equipped with a different combination of support buildings depending on its circumstances.
6.0 Heritage Significance

6.1 National Significance

The NPWS Lighthouses form part of the overall collection of lighthouses that are located around the entire Australian coastline, including that of Tasmania. As such they are of national cultural heritage significance.

The following assessment of the lighthouses in this national context has been made using the assessment criteria for entry on the Register of the National Estate. In each case it should be recognised that the NSW collective resource represents, with the exception of Cape Baily and Hornby, seven of the ten major “coastal highway” lighthouses that were developed along the NSW coastline between 1862 and 1903.

The statements of significance below include the importance of the continued operation of the light emitted from the towers.

A2 Importance in maintaining existing processes or natural systems at the regional or national level.

The coastal locations, topography and ecology surrounding all of the NPWS Lighthouses are to a greater or lesser degree representative of the natural systems that define the NSW coastline.

Montague Island is an important wildlife breeding ground, which is rare for its particular wildlife colony and representative of similar coastal island breeding grounds elsewhere in Australia. Montague Island is also an important place in terms of Aboriginal mythology and prehistoric occupation.

A4 Importance for associations with events, developments or cultural phases which have had a significant role in the human occupation and evolution of the nation, state, region or community.

The collection of NPWS Lighthouses is representative of the development of a major coastal navigation system around Australia and particularly along the NSW coastline, in the latter half of the 19th century. To the extent that Australia is a maritime nation remotely located from the major centres of Europe, America or Asia, the development of this safe navigation system was crucial to the economic and social development of the country.

B2 Importance in demonstrating a distinctive way of life, custom, process, land use, function or design no longer practised, in danger of being lost or of exceptional interest.

The collection of NPWS Lighthouses is representative of the development of the built expression of the major coastal navigation system around Australia and particularly along the NSW coastline, in the latter half of the 19th century. The technology, operational patterns and architectural expressions of modern coastal navigational aids has largely replaced the traditional lighthouse.

The 19th century NSW lighthouses are the product of a centralised management system for coastal navigation and a powerful combination of NSW Government agency organisation and cooperation, between the Marine Board of NSW and Colonial Architect’s office. The architectural and functional cohesion that resulted from this association is unique in the Australian context.

The co-ordinated management of navigation in Australian waters was one of the matters which heralded the eventual federation of the individual colonies. The passage of ships from the Indian Ocean around the coastline to Sydney and the other eastern ports entailed sailing past the jurisdiction of Colonial administrators. From as early as 1856 the new Colonial Governments found it expedient to consider a co-ordinated approach to the establishment and management of navigational lights and other markers. A further series of conferences, in 1864 and again in 1873 paved the way for such co-operation to lead to eventual federation.

From 1915 the Commonwealth Government assumed control of lighthouses across the nation and managed them on a national basis until the 1990s. The NPWS collection is therefore associated with the national management system adopted in the 20th century.

D2 Importance in demonstrating the principal characteristics of the range of human activities in the Australian environment (including way of life, custom, process, land use, function, design or technique).

The complexes of lighthouse towers and free standing cottages are clearly expressive and representative examples of the built expression of the lighthouses in the 19th century.
The material evidence of the lifestyles of the early Lighthouse Keepers and their families in the face of a unique set of circumstances of an isolated coastal location and rigorous daily operations, is clearly expressed in the surviving building fabric and cultural landscapes. The evolution of the lifestyles and working conditions is also clearly expressed.

EI
Importance for a community for aesthetic characteristics held in high esteem or otherwise valued by the Australian community.

The combination of Lighthouse tower and cottages, located on rugged headlands or spectacular off-shore islands, present a unique, readily identifiable and visually pleasing imagery that is highly expressive of their location, function and the isolated lifestyles of the staff and the technology of their time.

The architectural composition of the various lighthouse towers is a unique and visually accomplished expression of the work of the NSW Colonial Architects Dawson and Barnett. While many of the towers have a level of individuality, the use of a limited architectural palette achieves a consistency of expression that is of the highest standards.

The cottages generally provide a cohesive and distinctive late Victorian Georgian architectural imagery associated with the NSW Colonial Architect’s office for public buildings.

The distinctive architectural expression of the cottages is the real illustrator of the national and regional characteristics that distinguish the NSW lighthouses from all other national and international examples and reinforces the overall cohesion of the collection.

The built expression of the lighthouse towers and associated cottages has generally retained a high level of early integrity and intactness.

FI
Importance for its technical, creative, design or artistic excellence, innovation or achievement.

The lamp technology utilised in the NPWS Lighthouses was representative of the Australian use of such international technology as developed in France and by Chance Bros. in the United Kingdom in the middle and later decades of the 19th century. The majority of the original technology was replaced with improved systems in the early part of this century.

Cape Byron still contains the only Henry Lepaute optic and pedestal in Australia, while Barrenjoey has an unusual fixed optic, rare in Australia.

GI
Importance as a place highly valued by a community for reasons of religious, spiritual, symbolic, cultural, educational or social associations.

The NPWS Lighthouses are representative of lighthouses generally which enjoy a high level of public identity and support.

The individual lighthouses are held in high esteem by most of the local residents in the nearby township or village.

The lighthouses are a very large part of the family history of those who grew up there or staffed them.

The lighthouses have special meaning to mariners and navigators, of all forms of sea going craft.

For the relatives of those who have been ship wrecked in the vicinity, individual lighthouses can be especially meaningful.

The mythological importance to the Aboriginal community of places associated with the Lighthouses at Cape Byron, Montague Island and Sugarloaf Point provides an important link for these communities with their traditional understanding and associations with their land.

6.2
Historic Themes

Among the Principal Australian Historic Themes and Sub Themes proposed by the Australian Heritage Commission, the following are particularly relevant in understanding the significance of the Lighthouses as a collection and within their individual localities.

DEVELOPING AN AUSTRALIAN ECONOMY LINKED TO WORLD MARKETS

- Inspecting the coastline
- Exploiting natural resources
  - fishing and whaling
- Moving goods and people
  - shipping to and from Australian ports
  - developing harbour facilities
- Developing an Australian engineering and construction industry
- Struggling with remoteness, hardship and
failure-dealing with hazards and disasters
- Inventing devices (to cope with special Australian problems)
- Providing medical and dental services

WORKING IN AUSTRALIA
- Working in harsh conditions

EDUCATING AUSTRALIANS
- Educating people in remote locations

GOVERNING AUSTRALIA
- Colonial government and impetus to Federation
- Providing for the common defence
- Conserving Australian resources
  - conserving fragile environments
  - conserving Australia's heritage

DEVELOPING AUSTRALIAN CULTURAL INSTITUTIONS AND WAYS OF LIFE
- Commemoration of significant events
- Pursuing excellence in the arts and sciences
  - designing and building fine buildings

6.3 Collective Significance Within NSW

The following assessment of the NPWS historic lighthouses as a collection has been made in accordance with the assessment criteria established by the NSW Heritage Office.

HISTORIC SIGNIFICANCE

The NPWS Lighthouses represent the majority of the main historical or so-called "coastal highway" lighthouses erected along the NSW coastline in the second half of the 19th century.

The majority of the NPWS Lighthouses are related to the great period of lighthouse construction around the world, in the latter half of the 19th century, reflecting the successful linkage of higher quality optical technology with enormous increases in international maritime traffic after the development of steam powered vessels. This international trend was reflected along the NSW coast, with the years from the late 1830s until the turn of the century being the most prolific development period for coastal navigation and the construction of major lighthouses in the history of the State.

The entire collection of major lighthouses are associated with the primary form of transport and communication for the often isolated coastal settlements in NSW and Australia during the 19th century. They improved the safety of commercial shipping operations to small river ports which were vital to the development of NSW coastal communities and communications with the hinterland, throughout the 19th century. They are the product of a powerful combination of NSW Government agency organisation and co-operation, between the Marine Board of NSW and Colonial Architect's office, in the latter decades of the 19th century. The architectural and functional cohesion that is reflected in the major NSW lighthouses is unique in the Australian context.

AESTHETIC SIGNIFICANCE

The Lighthouse complexes, particularly the combination of tower and cottages, located on rugged headlands or spectacular off-shore islands, present a unique, readily identifiable and visually pleasing imagery that is highly expressive of their location, function and the isolated lifestyles of the staff and the technology of their time.

In general the lighthouses have retained the extreme sense of coastal isolation, at the very edge of the continent, that is so clearly expressed by the relatively unchanged character of their natural backdrops. They form the visual pinnacle of the coastal topography which reinforces their imagery as the interface between the relative safety of the land and the unknown dramas of the sea.

The architectural composition of the various lighthouse towers is a unique and visually accomplished expression of the work of the NSW Colonial Architect's office, over a period of some 40 years, particularly when it was under the leadership of James Barnet. While many of the towers have a level of individuality, the use of a limited architectural palette achieves a consistency of expression that is of the highest standards.

The nature and inter-relationship of the buildings at the base of the tower. Particularly the free standing cottages are the real illustrators of differing national and regional architectural styles, cultural traditions, organisational structures, communications technology, climate, building materials and location. The strongly characteristic late 19th century Victorian Georgian NSW Colonial Architect's style of the majority of the cottages clearly delineates these
building complexes from all other international and national lighthouses and reinforces the overall cohesion of the collection.

The majority of the NPWS Lighthouse complexes, including the tower, cottages and general arrangement of supporting elements has typically retained a high degree of original integrity. Due to the nature of the functional role and the evolutionary way that new technology was introduced, there has generally been little change to the external appearance, composition of the built elements or immediate cultural landscape settings. Consequently they remain highly evocative of their late 19th century character.

SOCIAL SIGNIFICANCE

The NPWS Lighthouses are part of a collective resource which has a very high level of public identity and support. Irrespective of their individual architectural characteristics or topographical setting, the "lighthouse" is one of the most familiar visual and emotive images with most people.

In Byron Bay, for example, some 60% of the businesses utilise the lighthouse in some way in their corporate identity.

The individual lighthouses are held in high esteem by most of the local residents in the nearby township or village. There is a very high level of community "ownership" of the lighthouses. They are favourite places to take visitors and the headlands are often regarded as excellent places for look-out, whale watching or re-gaining inner composure. They are often closely associated with the historical development of the community, through trade and safe commerce.

The lighthouses are a very large part of the family history of those who grew up there or staffed them. There remains a relatively large number of former staff and their families living in places such as South West Rocks and Coffs Harbour, who hold strong personal associations with the lighthouses.

The lighthouses have special meaning to mariners and navigators, of all forms of sea going craft. They remain as the point of consistency and as beacons of light. For the relatives of those who have been ship wrecked in the vicinity, individual lighthouses can be especially meaningful.

SCIENTIFIC SIGNIFICANCE

Most of the sites have the individual capacity to reveal a wide range of ecological and environmental information about their setting and the natural systems that surround them. In particular Montague Island and South Solitary Island have excellent potential for wildlife research.

The NPWS Lighthouses illustrate a range of late 19th century construction techniques and materials, and their particular application on difficult sites and in extremely exposed locations.

The technology of the optical systems and lantern house construction and their progressive upgrading are excellent illustrations of the application of 19th century international illumination and communications technology in the Australian context.

The complexes and their immediate surroundings are particularly illustrative of the remote life styles of the lighthouse keepers and their families, particularly as the changes since the late 19th century are relatively subtle to the casual observer. Particular aspects of the lifestyle and re-supply methodologies are expressed in elements such as the elevated gantry at South Solitary Island.

The equipment at the sites clearly demonstrates the range and development in the technologies of navigation, communication and power generation that has evolved since the late 19th century.

There is a considerable body of documentary material surviving which reveals information on the lighthouses, their design, construction, operation and the lifestyles of those who staffed them. The archaeological potential of the sites, particularly the construction techniques, trolley lines, infrastructure and jetty locations has a high capacity to reveal additional information.

Several of the sites, most notably Inner South Head, have an excellent capacity to illustrate the exploitation of key vantage points along the Australian coastline, for defence purposes, not only during World War Two but stretching back into the late 19th century.

The isolated nature of several lighthouse complexes, particularly Smoky Cape, Sugarloaf Point, Point Stephens and Green Cape, clearly illustrate the scale and nature of the challenges facing the Europeans as they attempted to settle the remote Australian landscape in the late 18th and early 19th centuries.
COMPARATIVE ASSESSMENT

The NPWS Lighthouses, as a collection, are representative of the large so-called “coastal highway” lighthouses developed along the NSW coastline in the period between 1860 and 1905. The extent of this representation is derived from the management by NPWS of seven out of the ten such complexes erected in NSW.

The entire group “coastal highway” lighthouses are unique in the history of NSW as the physical expression of a centralised government response to the provision of a safe navigational infrastructure along the coastline. The infrastructure has a high degree of consistency due to the application of available technology and the design influence of Colonial Architects.

SIGNIFICANCE TO ABORIGINAL PEOPLE

The Aboriginal communities do not ascribe any particular significance to the actual Lighthouses and associated buildings. Research may turn up recorded references of interaction between the lighthouse people and the local Aborigines, but there appears to be little or no current knowledge of this amongst the Aboriginal people consulted. The communities do however, ascribe significance to the land on which the lighthouses are situated in terms of mythological, prehistoric, historic and contemporary cultural associations. The local Aboriginal communities see themselves as the rightful owners and custodians of the land.

The known Aboriginal archaeological sites in the vicinity of the Lighthouses have not been assessed as part of this study in relation to their scientific significance. Although this is likely to vary between Lighthouses it can be predicted that some sites will have high scientific research potential compared to examples of depleted resources in urban areas and as examples of particular adoptions and cultural history at the coastal zones where “urbanisation” has been limited to the development of the lighthouse complexes.

6.4 Comparative Significance Of Each NPWS Lighthouse

Each of the NPWS lighthouses has individual characteristics which contribute to the overall significance of the collective resource. A detailed assessment of the significance of individual lighthouses is contained in the Supplementary Information sections at the rear of this document.

CAPE BYRON, EXHIBITED 1901

Cape Byron is the most northerly of the NPWS Lighthouses and is located at the most easterly point on the Australian mainland, making it by far the most visited lighthouse in the collection. The sweep of the light is clearly visible from nearby Byron Bay township, constantly reinforcing its presence in the minds of the local people. No other NPWS lighthouse enjoys this level of direct contact with the nearby settlement.

Given its high level of visibility and accessibility, the Lighthouse is held in particularly high regard by the local community. Its imagery is utilised by more than half of the local business groups to reinforce their connection with Byron Bay. Many of the local people regularly utilise the headland and the Lighthouse precinct for active or passive recreation.

It is the last of the great 19th century style lighthouses in the NPWS collection and the second last major colonial lighthouse constructed in NSW. As a good example of the extravagant and eclectic design, typical of the late Victorian period, it is the only NPWS Lighthouse which adopted the symmetrical support structures at the base of the tower, a reflection of the original Greenway design for the 1818 Macquarie Light.

It is one of only three lighthouses in NSW constructed in precast concrete blockwork and the only one in NPWS management. The Keepers cottages were also erected in blockwork, one of only four such complexes.

Cape Byron contains an outstanding late Victorian light apparatus which is the only Henry-Lepaute optic and pedestal in Australia. The optic is contained within one of only four 13 feet diameter Chance Bros. lantern houses in Australia and contains possibly the first mercury float pedestal installed in Australia.

SMOKY CAPE, EXHIBITED 1891

This lighthouse is one of the last major lighthouse complexes designed by James Barnet, as Colonial Architect and the only one designed by him following his 1885 inspection tour of Europe and visit to Chance Bros. in Birmingham. Given the elevation of the headland site, Smokey Cape is the highest lighthouse in the NSW collection, despite the relatively low height of the actual tower.

The complex enjoys a remarkably isolated setting
on a narrow headland. It is completely surrounded by National Park and unspoilt coastal scenery, greatly enhancing its aesthetic attraction.

The tower and quarters are one of only three to employ mass concrete construction with local granite as the aggregate, all of which are under NPWS management. Its octagonal design and strongly modelled balcony. With its heavy brackets, make it a distinctive example of the architectural language employed by the Colonial Architect’s office under Barnet.

SOUTH SOLITARY, EXHIBITED 1880

This lighthouse was regarded by those who worked there as the most isolated lighthouse in New South Wales. It is one of only two major lighthouses in NSW located on off-shore islands, providing a clear demonstration of the isolated lifestyle of the keepers.

It is the only lighthouse with a high level jetty that projected dramatically from the steep topography, emphasising the remoteness of the island location and illustrating the unique methodology of re-supply. This jetty is a unique component of any NSW lighthouse.

It was the primary component of one of the most concentrated construction period of lights in Australia, along the north coast of NSW in 1879-1880. The construction phase in Bass Strait during the 1860s was the only comparable concentrated period.

The tower and quarters are thought to be the earliest mass concrete lighthouse construction in Australia and one of only three in NSW to employ local rock as an aggregate for the concrete. The Lighthouse cottages are regarded by local historians as the oldest houses in the Coffs Harbour district.

SUGARLOAF POINT, EXHIBITED 1875

Sugarloaf Point was the first of the Barnet collection and established several key design themes that were incorporated in a number of subsequent lighthouses. These key design themes include the heavily bracketed tower platform, the separate location of the cottages and the arrangement of the Head keeper’s cottage and the Assistant Keepers’ cottages, the design of the cottages and the render and paint.

The external staircase to the mid level entry is a distinguishable feature of the lighthouse not repeated in subsequent designs.

POINT STEPHENS, EXHIBITED 1862

The tower has a unique architectural design within the NPWS collection, adopting the elegant classical bell cast circular form developed by Robert Smeean for Eddystone Lighthouse in 1759. With a construction date of 1862, Point Stephens lighthouse tower is the second oldest in the NPWS collection. It is significant as one of only six lighthouses constructed in Australia prior to 1862. The considerable height of the tower reflects the low elevation of its site, close to the very edge of the island peninsula on which it stands.

The face sandstone cottages are unique in NSW, being the only group where all three Keepers quarters were joined into a single building. They adopted the Victorian Gothic style, in total contrast with the Victorian Regency character of the typical late 19th century NSW Colonial Architect’s Office that was adopted for all other major NSW lighthouse complexes.

BARRENJOEY, EXHIBITED 1881

Barrenjoey was the only NSW lighthouse to utilise face sandstone for both its tower, attached oil store and cottages, in a combined arrangement which responds well to the steeply sloping topography at the rear of the headland ridge.

It is the most dramatically sited lighthouse within the Sydney metropolitan area. The headland is a popular walking destination for Sydney residents and enjoys spectacular views over Broken Bay, where the backdrop is largely dominated by the natural landscape of most visible headlands.

HORNBY, EXHIBITED 1858

Hornby Lighthouse at Inner South Head in Sydney, is the oldest lighthouse in the NPWS collection, although the tower is not actually owned or managed by NPWS. It was one of the earliest lighthouses in Australia to adopt the separate cottage group for the keepers, in preference to joining them with the base of the tower. The squat tower has an external staircase, used on other, later lighthouses but not those within the NPWS collection.

It is the only lighthouse in the NPWS collection which was essentially erected as a harbour light, supplementing the “coastal highway” function of the nearby Macquarie Light.

The dramatic siting of the tower and cottages on the extreme southern headland at the entry to Sydney Harbour has made it a strongly evocative landmark for the thousands who pass the Heads.
everyday.

The immediate precinct of the lighthouse and cottages is supplemented by 19th century gun battery positions and World War Two defence facilities. Accordingly it is the clearest example of all the NPWS lighthouses where these two important cultural responses to the coastal edge, occur in such a close relationship.

CAPE BAILY, EXHIBITED 1951

The most recent lighthouse in the NPWS collection, and the only one erected initially as an automatic light. It is an unusual use of a late 19th century lantern house enclosure relocated from another, unidentified lighthouse and erected on the 1951 concrete tower base.

Cape Baily is located on the Kurnell peninsula, near to the important Captain Cook landing place and other cultural heritage and Aboriginal places of significance.

MONTAGUE ISLAND, EXHIBITED 1881

Montague Island Lighthouse is one of only two major lighthouses in NSW located on off-shore islands. The tall slender circular tower utilised the natural granite of the island as a face material and is sited on top of one of the gigantic granite boulders that are a dramatic feature of its topography and geology. This gives the Lighthouse a unique expression of its place.

The two cottages and associated outbuildings form a cohesive group at the base of the tower.

The Island is an important wildlife sanctuary.

GREEN CAPE, EXHIBITED 1883

The most southerly lighthouse in NSW and the tallest tower in the State, a reflection of the low lying nature of its coastal edge siting.

The tower and quarters are one of only three to employ mass concrete construction with local rock as the aggregate.

The distinctive architectural style with the square base stepping into an octagonal tower has been attributed to the facilitation in the use of formwork but the tower bears a remarkable similarity to the 1862 timber tower of the Lookout Point Lighthouse in Twofold Bay. If this connection is proven, after additional research, it will complement the more well known connection between Barnet and the design he drew from Greenway when he rebuilt the
6.5
Elements of Primary and Contributory Significance

Grading the comparative significance of various elements or characteristics of an historic place or building is a useful management approach to support future programmes of detailed fabric or artefact conservation.

The majority of the conservation management plans prepared for AMSA by Clive Lucas Stapleton and Partners included a graded table of significance for the various components of the lighthouse complexes, including landscape and archaeological features and of individual buildings. For example the Barrenjoey CMP provided a ranking system from 1 to 7, with items noted as 1 being of very high significance and those at 7 of no significance.

The criteria used to develop this ranking system at Barrenjoey for buildings were period of construction, architectural quality, historical association, technological interest, integrity of physical fabric and/or importance to circulation. Other criteria were utilised for grading landscape features and archaeological items.

The subsequent allocation of graded levels of significance in some of the CMPs is considered by this consultant to be overly complex and not beneficial in terms of providing a clear background to the conservation and management of building fabric or other elements.

The conclusions reached by the consultant team preparing this Conservation Management Plan have taken a different emphasis.

The characteristic considered to be the most important in relation to the NPWS Lighthouses is the manner in which they have evolved progressively while retaining their essential integrity and significant features. This analysis is expanded in Section 8.2. Accordingly a three tier significance rating has been adopted.

- Characteristics of Primary Significance
- Characteristics of Contributory Significance
- Characteristics of Little or No Significance.

PRIMARY SIGNIFICANCE:

All those elements and features that relate to the initial construction and operation of the particular Lighthouse and its supporting buildings and infrastructure. It includes the pre-existing topographical and landscape characteristics, initial cultural landscape features and sites of Aboriginal cultural significance.

CONTRIBUTORY SIGNIFICANCE:

All those elements which relate to the subsequent use and development of the place as an operational Lighthouse, right down to the period when they were transferred to NPWS or other relevant agencies such as Australian Property Group (South Solitary Island) or the Cape Byron Trust. It includes subsequent natural and cultural landscape features and post contact period sites and places of Aboriginal cultural significance.

ELEMENTS OF LITTLE OR NO SIGNIFICANCE:

Generally only those items which relate to the subsequent re-use and development of the place after it was transferred to NPWS.
Part C

Constraints and Opportunities
7.0
Obligations Arising From Significance

7.1 National Agencies

AUSTRALIAN HERITAGE COMMISSION

The Australian Heritage Commission has recognised the Lighthouses as important components of Australia's cultural resources, by entering all of them, with the exception of Cape Baily, on the Register of the National Estate. Details of the individual RNE listings are noted in the Supplementary Information provided for each Lighthouse site, at the rear of this document.

While such an entry has no formal requirements for the planning and management of the lighthouse complexes for non Commonwealth agencies or organisations, it is a recognition that the Lighthouses are important components of a national chain. NPWS should ensure that the long term curatorial management and interpretation of the Lighthouses takes account of their national and international values. NPWS also has a short term duty to consult with the AHC under the Heads of Agreement, as set out below.

Given that AMSA is a Commonwealth authority, any proposed activity by AMSA which is likely to impact on the physical fabric or significance of the place must be referred to the Australian Heritage Commission for approval under s30 of the AHC Act.

AMSA retains operational management of several of the lights and lighthouse towers, continuing their role as important navigational aids. As has been the case throughout the history of each lighthouse, the navigational role is of critical importance to maritime safety, on a continuous basis.

Where AMSA retain operational control or lease obligations of some lights and lighthouse towers, NPWS and AMSA will need to co-operate in the overall management of the complexes.

As navigational or power source technologies change, AMSA should liaise with NPWS and AHC to ensure that the future installation of such technologies minimises any adverse effects on the significance or visual ambience of the complexes.

At times, AMSA may be contracted to undertake specialised technical or maintenance work to the lighthouse towers or the equipment, given their long historical experience in managing these sites. Any involvement by AMSA as a subcontractor to NPWS will need to be referred, by NPWS, to the Australian Heritage Commission for approval under s30 of the AHC Act.

HEADS OF AGREEMENT

The Heads of Agreement between AMSA and the NSW Government, which established the framework for the transfer of the seven subject lighthouses to NPWS, contained a number of requirements for the long term conservation of the places. South Solitary Island is managed by Australian Property Group and is the subject of separate negotiations by NPWS. Inner South Head was not managed by the Commonwealth. The conservation requirements can be summarised as follows:

- Conservation and management shall be undertaken under appropriate State legislation.
- Each Lighthouse property would be reserved under the National Parks and Wildlife Act.
- Each Lighthouse property would be listed in an appropriate Heritage and Conservation Register, under s170 of the NSW Heritage Act.
- The State will develop and implement management plans within two years of the transfer settlement date, for those properties which had previously prepared CMPs.
- Within two years of the settlement date, conservation analyses will be undertaken for those sites where no CMP had been prepared (Cape Baily and Montague Island). These analyses shall also provide appropriate management to ensure protection of cultural and natural values.
- The State acknowledges that human presence is the most effective means of protecting the cultural heritage significance of the Lighthouse properties (all NPWS except Montague Island, Cape Baily and Point Stephens). The State will endeavour to maintain such presence for this purpose, but if this is not feasible the State will take whatever action is appropriate and required under state legislation to ensure the protection of those values.
• The State will notify the NSW Heritage Council of any decision to demolish any improvement located on any of the Lighthouse properties and in the Register of the National Estate. Notice will be given at least three months prior to any action being taken.

• The State will consult with the Australian Heritage Commission on measures to be implemented to protect the cultural heritage significance of each of the Lighthouse properties for which AMSA had prepared CMPs, until the required management plans are developed.

BUREAU OF METEOROLOGY

Lighthouse Keepers have traditionally performed an important record keeping and weather monitoring function for the Bureau of Meteorology. In many cases the weather records that have been collated over many decades provide a valuable scientific resource. Several of the Lighthouses continue to provide this monitoring service, either automatically or by means of the NPWS staff. As appropriate this operation should continue.
7.2 State Government Agencies

NATIONAL PARKS AND WILDLIFE ACT

All Service areas are required to have a Plan of Management (POM) prepared under Section 72 of the NPWS Act 1974, which must be placed on exhibition before final adoption by the Minister. The Lighthouses will mostly be added to existing National Parks or Nature Reserves, generating a requirement for the relevant POM to be amended to include the Lighthouse. A new POM will be required for any newly gazetted areas.

Protection of Historic Heritage

The NPW (Land Management) Regulations 1995 provides protection for "any deposit, object or material evidence relating to the settlement or occupation of ... a part of New South Wales ... more than 25 years old" on Service Estate (cl 13 (3) (d)). This requires that consideration be given to the importance of even relatively recent physical evidence of occupation on the site, including earlier NPWS management and conservation works and previous archaeological work.

Protection of Aboriginal Relics

The NPWS Act provides for the protection of all Aboriginal relics in NSW. Their disturbance, removal or destruction is regulated through a system of consents to destroy, which are issued by the Director General of National Parks and Wildlife or by delegated authority.

NPWS Policy Requirements

It is NPWS policy that management and conservation works on historic places are to be carried out based on a conservation plan. This is to be prepared in accordance with the Burra Charter and its Guidelines (Australia ICOMOS 1994).

Conservation plans should address conservation and other management requirements, including interpretation and adaptive re-use sufficient for the Service's management needs.

The Service provides a copy of Draft Conservation Management Plans to the Heritage Council for their input prior to endorsement by the Director General of National Parks and Wildlife Service.

NPWS Field Management Guidelines

The NPWS Field Management Guidelines include the following Historic Resource Conservation and Management policies:

4.1.3 All sites, structures and relics of potential historical significance will be protected from all development or alteration until their historic or other values are evaluated.

4.1.6 Any works proposed for an historic place ... shall be preceded by the preparation of a conservation plan, or other appropriate document.

4.1.7 Conservation Plans ... will be prepared in accordance with the Burra Charter and by a person with qualifications approved by the Service.

REGIONAL ENVIRONMENTAL PLANS

Of the NPWS Lighthouses, Cape Byron, South Solitary, Smoky Cape and Point Stephens are listed as heritage items or otherwise managed within Regional Environmental Plans issued by the NSW Department of Urban Affairs and Planning. Details of these listings are contained in the Supplementary Information for each Lighthouse. NPWS should respond to the aims, objectives and procedures of these REPs.

In general where a site is listed in an REP under the EP&A Act, NPWS policy guidelines indicate that approval is required from the Heritage Council of a Conservation Management Plan for the listed site. NPWS then need to gain agreement from the Heritage Council that the site can be managed in accordance with the CMP without further reference to the Heritage Council. It is however necessary to check the wording of individual REPs to ensure that the appropriate procedures are followed in each case.

NSW HERITAGE COUNCIL

The NPWS Lighthouses are regarded as being of State significance. NPWS have proposed that all the NPWS lighthouses, including the Inner South Head Cottages, but with the exception of Cape Baily be entered on the NSW State Heritage Register. Individual State Heritage Inventory Sheets have been prepared by NPWS for each Lighthouse.
In late 1998, the Heritage Amendment Bill 1998 passed through the NSW Parliament. This Bill makes several important new provisions for the heritage management in New South Wales. The most relevant new provisions with regard to the NPWS Lighthouses are:

- To replace provisions for the making of Permanent Conservation Orders with provisions for the listing of items on the new State Heritage Register.

- To extend the operation of the Act to include moveable objects of heritage significance.

- To impose further obligations on government instrumentalities in respect of items of the environmental heritage that they own or occupy. Such items are those included in the instrumentality's s170 Register or listed on the new State Heritage Register.

- Each instrumentality is responsible to ensure that all listed items under its care, control or management are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Minister on the advice of the Heritage Council and notified to instrumentalities from time to time.

- The Heritage Council can from time to time issue heritage asset management guidelines to government instrumentalities. These guidelines can include such matters as maintenance, repair, alteration, transfer of ownership and demolition. A government instrumentality must comply with the guidelines.

- To alter the circumstances in which an excavation permit will be required to authorise excavation so that such a permit will be required when a person knows or has reasonable cause to suspect that a relic will or is likely to be found.

- To alter provisions that regulate excavations in connection with the protection of relics, to clarify the circumstances in which an excavation permit is required and to extend requirements that relate to the notification of the discovery of a relic and the conservation of relics discovered during excavations.

- A government instrumentality must give the Heritage Council not less than 14 days written notice before it removes any item from its s170 Register, transfers ownership of any item on its Register, or ceases to occupy or demolishes any place, building or work entered in its Register.

- The annual report of a government instrumentality is to include such information in relation to the s170 Register and the new guidelines as notified by the Heritage Council from time to time and a statement of condition of its listed items.

NPWS will need to establish an agreement with the NSW Heritage Office that the individual Lighthouses can be managed in accordance with this Conservation Management and Cultural Tourism Plan, once it is endorsed, without further referral to the Heritage Council. In that circumstance, only those proposals which fall outside the scope of these documents and their policies, will need to be separately referred to the Heritage Council.

All archaeological material, with the exception of Aboriginal heritage items, is managed through the relevant archaeological management provisions of the NSW Heritage Act. This Plan recommends the formulation of Archaeological Zoning Plans for each of the Lighthouse sites as a prelude to any development works, particularly the installation of underground infrastructure.

**NSW WATERWAYS AUTHORITY**

A number of the Lighthouses currently perform a navigational aid role for local or recreational boating, under the auspices of NSW Waterways. The State Government may well assume this role if AMSA decides to withdraw from its current responsibility for the primary navigational role at other sites. NPWS should liaise actively with NSW Waterways regarding the on-going or future management of specific sites and the associated navigational and safety items.

**SYDNEY PORTS CORPORATION**

Sydney Ports Corporation currently own, control and maintain the Hornby Lighthouse tower at Inner South Head. Given the siting of the tower within the overall confines Sydney Harbour National Park at inner South Head, NPWS should continue to liaise with Sydney Ports about the operation and condition of the tower.

In addition, NPWS should consider negotiating with Sydney Ports Corporation for the eventual transfer of ownership and management responsibility of the tower itself to NPWS. This would achieve a level of consistency for Hornby
with the relationship of all other NPWS Lighthouses. Sydney Ports should continue to have responsibility for the operation of the navigational light within the tower, as is the case with either AMSA or NSW Waterways with other operational lights.

DEPARTMENT OF LAND AND WATER CONSERVATION

Many of the smaller lighthouses and two of the larger sites, at Norah Head and Sugarloaf Point, have been transferred to the management control of the NSW Department of Land and Water Conservation. DLWC will commission a series of Conservation Management Plans for the lighthouses under its control, with completion envisaged by mid 1999. NPWS should liaise with DLWC and seek to achieve a similarity of approach, as appropriate, in the on-going management and conservation of the various historic lighthouses along the NSW coast.

SOLITARY ISLANDS MARINE PARK

The Director General of NPWS is a Board Member of the Marine Park Authority of NSW, which manages the Marine Park surrounding South Solitary Island. Management of the Island should therefore take account of the management aims and objectives of the surrounding Marine Park.

SYDNEY WATER

The larger precinct around the Cape Baily lighthouse is partly controlled by Sydney Water, which operates the nearby Cronulla Sewerage Treatment Plant. There are considerable pollution problems arising from this plant and its system of outfalls which influence the overall environmental qualities of the Kurnell Headland. These are also compounded by the nearby Oil Refinery.
7.3 Local Government

Of the NPWS Lighthouses Cape Byron, Smoky Cape, Sugarloaf Point, Point Stephens, Barrenjoey and Hornby are listed as Heritage Items under the Local Environmental Plans of the relevant Local Council. Details of these listings are contained in the Supplementary Information for each Lighthouse.

In the period before the Lighthouse sites are gazetted any proposal for works to the sites must be referred for approval under Part IV of the EP&A Act to the Local Council. Applications will need to be accompanied by a Heritage Impact Assessment report, given their listed heritage status.

Once the Lighthouse sites are gazetted into NPWS ownership and management, SEPP 4 establishes that NPWS is the consent authority. A similar process of reviewing the heritage impacts is contained within Service procedures, primarily through Reviews of Environmental Factors for Part V approval under the EP&A Act. However, it will be advantageous for the relevant NPWS office to consult with the LGA as the proposal is formulated.

Other Local Government initiatives which may affect the overall management of the Lighthouse precincts or their settings, include such groups as the Potter Point Working Group at Kurnell, set up by Sutherland Council. NPWS will need to work closely with such organisations.

7.4 Community Groups

NATIONAL TRUST OF AUSTRALIA (NSW)

The National Trust of Australia (NSW) has Classified all of the NPWS Lighthouses, including Hornby but excluding Cape Baily in recognition of their heritage significance. Details of these listings are contained in the Supplementary Information for each Lighthouse.

While listing by the Trust carries no formal planning or development approval obligations, classification is a further recognition of the community's regard for their importance. NPWS should maintain a positive liaison with the National Trust as appropriate, in relation to the management of the Lighthouses.
AUSTRALIA ICOMOS

Australia ICOMOS is the National Committee of the International Council of Monuments and Sites. Its publication, *The Burra Charter* has become the agreed professional practice standard for the methodologies and philosophical approaches to conservation work in Australia. Its status is advisory not statutory, however NPWS generally uses the *Charter* and its own *Field Management Guidelines* to guide its professional conservation activities.

LOCAL COMMUNITY GROUPS

Many of the local communities along the coast which are associated with particular Lighthouses have active community based Historical Societies or other special interest groups. These groups and individuals can and do represent a considerable source of goodwill and voluntary support for the conservation and interpretation activities at Lighthouses. They can also facilitate the integration of the Lighthouses into the local cultural heritage and tourism infrastructure.

VOLUNTEER COASTAL PATROL

Several of the Lighthouses provide facilities and accommodation for the local Volunteer Coastal Patrol. This is an important, on-going and very relevant connection with the traditional role of the Lighthouses and should be encouraged and supported. Some stations, such as Montague Island and Cape Byron, also maintain an important infrastructure of radio beacons for local community or commercial groups.

SCIENTIFIC RESEARCH COMMUNITY

Sites such as Montague and South Solitary Island are important nesting sites and wildlife reserves. They provide considerable research potential for scientists.
7.5

Aboriginal Communities

Most Aboriginal communities see the lighthouse settings as part of a larger cultural landscape, often with mythological significance. Few have specific interest in or associations with the actual buildings or features and do not place cultural significance or value on the lighthouses. In some cases there are recorded patterns of use or continuing use in the surrounding landscape. At present the level of consultation with and management involvement of the Aboriginal communities to some extent reflects this relatively low level of interest. The situation, however, is fluid and it should be expected that Aboriginal communities will continue to develop and press their interest in these areas.

The larger cultural landscape covers areas of significance relating to Myth (creation stories), increase sites, historical sites (Christmas camps), and contemporary uses (cultural activities and ceremony). Management of the lighthouses including conservation practises and tourism proposals would impact on this cultural landscape. The communities want to know and be involved in decisions or actions which have the potential to impact upon the cultural landscape and particular sites and areas.

The perceived place of the Lighthouses in their immediate setting has some similarity and some significant differences with the way Aboriginal view these places. The lighthouse curtilage may be taken as the immediate buildings and built features but the lighthouses are situated in a conceptual space which includes the coastline and seascape it patrols and its navigational guidance for sea passage. These places have importance to the Aboriginal owners in a number of specific ways (resource zones, occupation sites, burial sites etc) and they are also perceived as part of a broader landscape associated with social, ceremonial, historical and cultural traditions (Christmas camps, mythological sites, “men’s business”, ceremonial practices etc).

The Aboriginal communities are key stakeholder groups with a legitimate and ongoing interest in the management and adaptive re-use of the cultural resources of the lighthouse areas and the protection and management of their own sites at these places. The Aboriginal cultural resources at these places extend beyond the physical evidence of the prehistoric sites. The communities see the sites, recorded history and oral histories held by some community members as a way of reasserting their rights over the land and establishing community based projects of benefit to both the black and white community in terms of education and cultural tourism.

The on-going association of the Aboriginal community to the National Parks extends beyond their interest in prehistoric sites. Continuing use of places now held by NPWS is a major concern. Ceremonies and cultural activities are conducted at Montague Island by Aboriginal people from as far north as La Perouse. Members of the Worimi community camp at Point Stephens (Iris Russell pers comm). Guided cultural tours are planned by members of the La Perouse community, the Worimi at Port Stephens, the Yuin at Green Cape and the Gumbayngirr at Coffs Harbour. The Karuah LALC are in the process of developing a cultural tourism plan and the Forster LALC conduct informal cultural heritage excursions to Sugarloaf Point and Seal Rocks. Long-term camping is not an option at present but one of the principal concerns of the local communities is the re-establishment of hunting and fishing rights within National Parks.

ABORIGINAL OWNERSHIP

The National Parks & Wildlife Amendment (Aboriginal Ownership) Act was passed in 1996. This act provides for the return of ownership of National Parks and Reserves that are recognised for their special significance to Aboriginal people and a joint management structure. To date six Parks have been identified as suitable for hand back and joint management. The Mutawintji National Park and Historic Site and Coturandree Nature Reserve have been transferred to the traditional owners.

Communities see the Aboriginal Ownership provisions as the way of the future for Aboriginal involvement in Park management. The larger settings of the lighthouses are seen as an early and effective way of moving toward what the Aboriginal Ownership Act intends. Joint Management could be achieved by management or local advisory committees operating under Memoranda of Understanding for the lighthouses and the National Parks or Nature Reserves in which they are located. Most current management arrangements with the Aboriginal communities are not formal nor do they not allow this level of representation or involvement.

NATIVE TITLE CLAIMS

There are Native Title claims covering land which includes most of the Lighthouse sites and the National Parks where they are situated. In many of the areas there are overlapping or conflicting claims. All these claims are pending.
and the new Wik provisions concerning conflicting claims may make their continuing assessment difficult or void. There is considerable legal uncertainty and continuing political debate on the Native Title issue. Early resolutions appear to be unlikely.

At present, some but not all of these Native Title Claimant groups or individuals are consulted by the NPWS. The Native Title Tribunal recommended consultation with Native Title Claimant Groups at an early stage where there may be conflicting land use proposals or where proposed land use may extinguish native title.

The Service usually consults the relevant Local Aboriginal Land Council in the area and Tribal Elder group, and more recently Native Title Claimant groups. In some cases the LALC operate in areas where there are no Native Title claimants and they regard themselves as the custodians of the Aboriginal heritage. In other cases the LALC and local Elder Groups and/or native Title Groups, have members in common and work in conjunction. However, there are divisions within some of the communities, some of which appear to represent significant difficulty in setting up such management committees.

For example as well as the Local Aboriginal Land Council there may be a number of overlapping claims by different Aboriginal groups or individuals claiming Native Title ownership to the same area of land. Until such time as the Native Title is determined and such conflicts resolved an all-inclusive model of consultation should continue. Split committees or group facilitation may be required to establish effective joint management. It is also highly likely that LALCs will wish to remain part of any management structure regardless of Native Title determinations.

7.6 Tourism Operators

Almost all of the NPWS Lighthouses are located within or near important tourism destinations or attractions. Cape Byron is a major attraction, as the most easterly headland on the Australian mainland, Trial Bay Gaol, close to Smokey Cape is a major cultural tourism attraction, Tomaree Headland at the entrance to Port Stephens is one of the most popular NPWS lookout sites, West Head in Ku-ring-gai Chase National Park, from which excellent views are enjoyed towards Barrenjoey Headland, receives a million visitors per year, the majority on coach tours, while Inner South Head is a major viewing spot for Sydney Harbour based events. Local cruise boat operators in Narooma have willingly entered into agreements with NPWS to operate the cruises that are an integral part of the visitor experience at Montague Island.

Sugarloaf Point and its headland are a favourite pedestrian destination for people visiting the nearby village and beaches at Seal Rocks.

Over recent years whale watching and dolphin cruise activities in such places as South Solitary and Port Stephens have become extremely popular. In fact whale watching from both headlands and cruise boats has emerged as a major tourism activity in recent years. Some local tourism operators have expressed considerable interest in becoming involved in the future development directions for the lighthouses.

Many tourism operators have responded to the scenic and cultural attractions that are associated with the coastal locations of the lighthouses. Many also consider that these attractions are important to their commercial success and are keen to utilise them as part of their day to day itineraries or activities without exploiting them or losing the very characteristics which make them attractive.

NPWS should continue to maintain close liaison with local and regional tourism operators to regularly identify responsible tourism opportunities to the Lighthouses and their settings.
8.0
Conserving The Cultural Resources

8.1
Individual Or Collective Management

One of the keys to understanding and managing the historic lighthouses along the NSW coastline is the centralised nature of their original development and subsequent operation. It is from this background that the high degree of consistency in design and imagery arose.

The historical development of the NSW Lighthouses in the late 19th century drew its unity and success from the strength of men like Hixon and Barnett, each of whom provided strong organisational leadership. For most of the 20th century the entire collection was managed on a national basis, operating under centralised rules and regulations, across the entire nation, but with day to day management arranged on a state jurisdictional basis. During this period, the Lighthouse Keepers were rostered regularly from one station to another within NSW.

It is the continuation of this tradition that holds the concept of unified resource management and conservation methodology.

Many of the issues about the conservation and maintenance of the physical fabric of the buildings, the site elements and the landscape features are common across the entire NPWS collection. While the day to day management responsibility for each Lighthouse is vested in individual NPWS Region and District Offices, there is a strong need to achieve common and consistent approaches to conservation issues.

A simple example will suffice. The exteriors of the buildings at all of the Lighthouse complexes were traditionally painted white, although often with variations in the trim detailing. At Cape Byron the cottages were recently painted externally in a “buff” colour scheme. While the local management staff gave careful consideration to the choice of colours, the new scheme means that the visual appearance of the Cape Byron cottages is now distinctively different from the remainder of the collection.

NPWS needs to consider establishing a mechanism for enabling each responsible office to act in a coordinated manner in relation to issues which affect the conservation and re-use of the cultural resources.
8.2
Evolutionary Change And Development

Each of the NPWS Lighthouses is remarkable for the relatively small degree of apparent change that has taken place within the complexes as they have responded to the evolutionary changes arising from a century of operational life. What evolutionary change that has taken place has not generally degraded the overall significance or ambience of the places.

In general the overall precincts have changed relatively little, with the towers and Keepers’ cottages remaining the dominant visual elements in the compositions. These major buildings have also generally retained their external architectural imagery. The cottages at Montague are a small exception, with the originally separate verandah roofs now incorporated into the main line of roof sheeting. Bathroom enclosures which have been added to some verandahs are generally within the architectural definition of the verandah volumes.

In some cases there have been small support buildings such as garages or sheds erected in relatively close proximity to the cottages, but these are often contained within yard enclosures.

Internally, the cottages have undergone various degrees of progressive upgrading, usually of the kitchens and bathrooms and few original colour schemes survive. At Sugarloaf Point, successive keepers and caretakers have added personal touches to the internal colour schemes and decoration. The two Assistant Keepers’ cottages were internally connected to rearrange the numbers of available bedrooms, but this was achieved by the simple opening of a new doorway in the common party wall.

The evolving technology of power sources, lanterns and navigational equipment has generally left little impact on the overall precinct. The most visible is often the addition of solar panels. The lantern houses at Point Stephens and Montague Island have been changed but still fit well within the overall architectural composition of the towers. Green Cape has changed the most in terms of a new free standing metal framed tower, erected to the south of the main structure.

Accordingly this Conservation Management Plan has adopted a view that the pre-existing landscape and Aboriginal associations, and physical evidence from the initial construction and operational phase of each lighthouse be regarded as providing those characteristics which are of Primary significance. The physical and associated evidence from subsequent operational use and development, including the cultural landscape and Aboriginal associations, be regarded as of Contributory significance.

This relatively low key evolutionary nature of the change has two primary implications for future conservation management of the precincts:

- As change has been experienced at each of the complexes there is little justification for going backwards to a selected point in the evolutionary development.
- On-going change, which is inevitable given the closure by AMSA and transfer to a new management regime under NPWS, should be low key, require only a limited degree of change and be of a continuing evolutionary nature. It should not degrade the heritage and landscape qualities of the precincts and complexes.

CAPE BYRON HAS EVOLVED FROM OPERATIONAL STATUS TO CULTURAL TOURISM CENTRE WITH ONLY A MARGINAL LOSS OF SIGNIFICANT FEATURES (GBA)
8.3 Condition Of The Buildings And Structures

NPWS is fortunate in that the Lighthouse complexes are generally in relatively good condition, and in some cases the towers are still being maintained by AMSA. This situation establishes the essential framework for their ongoing conservation.

The Lighthouses were traditionally conserved by a rigorous programme of regular maintenance including painting and polishing, undertaken by the Keepers as a necessary reality in the face of the aggressive coastal marine environments, with occasional capital works support by the managing agency. While this led to some cases of untradesman like repairs, most complexes survived in remarkably good condition, given their harsh coastal environments. Un-scheduled inspections and the need to have the equipment functioning faultlessly engendered an operational attitude that has resulted in the buildings and precincts surviving in remarkably intact condition.

This style of maintenance can cause some long term problems. NPWS staff at Montague Island have found that much of the background building maintenance was undertaken in a relatively amateurish manner, particularly electrical wiring and plumbing alterations. Cyclical replacement of roofing was also common, with the early terra cotta tiles often being replaced by corrugated iron and more typically during the mid 20th century, with corrugated compressed asbestos sheeting and rainwater goods.

Since the lighthouses were automated, AMSA generally kept up a reasonable maintenance regime on all stations. The notable exception were the cottages at South Solitary Island, which have been managed for many years by Australian Property Group. Maintenance of the building fabric of secondary buildings was typically less rigorous, with AMSA managers concentrating on the lighthouse towers and the reliability of the navigation aids.

Since NPWS have assumed management responsibility, considerable expenditure has been undertaken on the buildings, with the exception of Point Stephens, in response to additional funding provided by Treasury. AMSA will continue the cyclical maintenance programmes for those lighthouse towers still under their responsibility. The Port Stephens tower was recently conserved by NPWS using AMSA as project manager, a continuation of their skill base.
Many of the Keepers' cottages and other outbuildings have been progressively renovated. The work has typically involved external and internal painting and repairs, upgraded kitchens and bathrooms and general external repairs. Most are now in good condition, with the exception of the cottages on South Solitary Island, which have been effectively abandoned since 1975 and are progressively deteriorating. The Head Keepers Cottage at Inner South Head has recently been externally renovated and all three cottages re-roofed with slate.

The greatest exception, in terms of condition, are the cottages at Point Stephens, which were burnt out in March 1991 and are now in ruinous condition. The solid stone walls are generally standing but the tall stone chimneys are either missing or in danger of collapse. By contrast one of the Assistant's Cottages at Montague Island has been progressively restored to its original 1881 condition and is being fitted out as a museum. The cottages at Barrenjoey were vandalised in the decades after the site was automated in the 1930s, but have generally been refurbished, to varying standards, by the tenants.

Most of the NPWS Lighthouses, with the exception of the Point Stephens cottages, Barrenjoey and to some extent the Inner South Head cottages, have now undergone a programme of necessary catch-up repairs and essential conservation works in the past few years. Accordingly a regular maintenance regime is now generally sufficient to retain the significant fabric. Exceptions to this are noted in the Supplementary Information provided for individual sites.

The key to on-going conservation of the building fabric is to implement a rigorous, cyclical maintenance programme to ensure that the buildings do not deteriorate to the point where major conservation expenditure will again be needed.

8.4 Environmental Conditions

The extreme maritime environmental conditions in which the Lighthouses exist create special problems for the conservation of the building fabric, of fences and of the cultural landscape features. In particular airborne salt attacks untreated ferrous metals with a vengeance. Constant and diligent attention with oils. Primers and paint can control the problem, but it requires constant maintenance and can be expensive.

The original building technology of the lighthouses was generally resistant to marine conditions, given a reasonable level of maintenance. Timber joinery and slate roofing were only vulnerable if their fixings were from ferrous metals. Masonry and timber construction was also reasonably resistant to airborne salt attack. In order to protect the significance of individual building components, maintenance and new works should consider utilizing traditional solutions as well as the careful introduction of new technologies.

Newer materials such as plastic and aluminium may not require the same protection as ferrous metals. It is anticipated that there will be a demand for the increased use of such materials during future repair work. Should such materials be considered, their selection must be carefully considered on the grounds of the overall effect on the significance of the place, not only on cost or convenience criteria. In general, good conservation practice suggests that the replacement of "like with like" is the preferred approach when considering the introduction of new materials. Care should be taken however that materials which have not performed well in the environmental circumstances or which may lead to accelerated deterioration of other elements should only be replicated with extreme care.

8.5 Cultural And Natural Landscapes

CURRENT STATE

The landscape areas around the Lighthouse complexes vary in the quality of their characteristics, with areas of native bushland varying from pristine to degrees of weed infestation. The landscape areas around the lighthouses are monitored by NPWS and are subject to the current management practices that apply to the adjacent National Parks.

Applications are made for funding for the control of pests and weeds. Local resident groups are in some cases, such as Point Stephens, encouraged by NPWS to assist in weed control and the monitoring of the pedestrian access routes across the island or through the National Park. The more immediate areas of cultural landscape elements around the Lighthouses are also monitored by NPWS.

In order to provide a basis for the understanding of the landscape around the Lighthouses and for the on-going management of the Lighthouse complexes, the approach proposed is to divide the
surrounding landscape into a series of discrete zones based on the existing physical and cultural characteristics. This will provide an analytical basis for the management of the physical layout so that a rationale may be provided to address the landscape issues that arise.

It is most important that the characteristics of the landscape as presented are understood, documented and recognised in management terms. They are individually unique in their expression and should not be modified for local or reasons which are unrelated to this Plan.

In order that the zones may provide an effective management tool, they cover the areas that provide a setting for the Lighthouses, being broadly the visual curtilage around the Lighthouses and consisting of the ocean, coastal edge and background, to the more detailed areas adjacent to the Lighthouse complex, consisting of the modified landscape made up of generally grassed areas around the complex and then the spaces between the buildings. These zones are described in the diagrams that have been developed for each Lighthouse, as contained in the Supplementary Information sections.

The Landscape Zones can be classified as follows:

THE COASTAL EDGE ZONES comprising:

- The Landscaped Backdrop which is largely managed as National Parks, Nature or Marine Reserves to protect the sense of isolation from modern development and to respect the mythological importance to Aboriginal people.

- The Coastal Topography in the vicinity of the Lighthouses, which again is largely managed by NPWS.

- On-shore Communication Centres, Pilot Stations and Lookout Points which enabled the Island Lighthouses to stay in touch with the mainland or from which the public can now appreciate the distant lighthouses.

THE HEADLAND OR ISLAND ZONES comprising:

- Fire Protection areas or barriers.

- The Access Route, whether this be by vehicle, foot or cruise launch.
- Walking Tracks linking the Lighthouse to nearby natural or cultural features.
- Car Parking areas or landing points such as a jetty or beach.
- Food Production Areas which supported the Lighthouse Keepers and their families.
- Archaeological sites and site features related to the construction of the Lighthouse complexes.
- Shipwreck sites, memorials and graveyards.

**BEACONS OF LIGHT ZONES**

comprising:

- The landscaping and spatial composition of the Lighthouse Complex.
- The Cottage Gardens, Enclosed Courtyards and Yards.
- The Spaces, Pathways and Protective Walling connecting the Cottages with the Towers.
- The immediate Landscaped Curtalice surrounding the complex.

8.6 Aboriginal Cultural Resources

NPWS is the primary State government agency with legislative responsibility for the protection, conservation and management of Aboriginal heritage in NSW, both in and outside Service Estate. The Service has recognised the right of the Aboriginal community to participate in the formulation of management structures and decisions which might affect Aboriginal Heritage. The recently formed Aboriginal Heritage Division oversees this function of the Service.

Aboriginal communities are concerned that they be involved in decisions about the lighthouses, re-use, conservation and promotion.

**EXISTING CONSULTATION FRAMEWORK**

Consultation with the Aboriginal community has been undertaken at a number of levels in the past.

These include:

SITE IMPACT ASSESSMENT AND MANAGEMENT relating to the protection and management of Aboriginal sites at the local level has been relatively informal. This may be done on an as needs basis or crisis response to adverse or development impact. For example in the development and promotion of Aboriginal sites and culture history in Service Estate or in reviews of impacts of Service capital or maintenance works. In general, these consultations are by informal phone call and site inspections and there are no formal records or minutes taken to formalise decisions. Typically, however, decisions of a regulatory nature are confirmed in writing.

The Service also oversees Aboriginal community consultation indirectly. For example, it is Service policy and an industry standard that the Aboriginal community is consulted throughout the course of all archaeological work in NSW. This work may be undertaken as part of environmental appraisal or impact assessment or for academic research. The Service functions as the review authority and controls the issue of Permits and Consents relating to archaeological excavation and site salvage. Most of this consultation is undertaken by the archaeologist involved with the Service playing a more direct role only if a conflict arises or the process fails.

**SPECIAL MANAGEMENT ARRANGEMENTS**

have been entered into by the Service in some cases. The Biamanga Aboriginal Place which contains sacred Aboriginal and archaeological sites is managed under its own Management Plan. The Aboriginal community are represented on the Biamanga Steering Committee. This is a more formal consultation structure and is appreciated by the local community given the importance of the sites and the area. Yuin people and the various organisations which represent them see this committee as a good model in management of heritage and land management of the area.

At Cape Byron the Headland Reserve is managed through a Trust which has wide community representation including representation by a member of the Native Title claimant group - the Arakwal Corporation. A Memorandum of Understanding (MOU) exists between the Cape Byron Trust and the NSW NPWS (adopted 20.9.97). State. This MOU recognises and is bound by an existing agreement between the Arakwal Aboriginal Corporation and the Minister of the Environment and the Minister for Land and Water Conservation on behalf of the State of NSW (signed on 17.4.97). This agreement sets up a management committee which plans and
manages the place under a system which includes an arbitration process and employment agreement. It is unclear what future role the Tweed Byron LALC or the Jali LALC will play in the management structure or process.
8.7 Historical Archaeological Resources

Each Lighthouse site, with the possible exception of Cape Baily, has the potential to yield information related to early occupancy or initial construction activities, through the surviving archaeological material. The Heritage Amendment Bill 1998 has introduced the requirement that excavation permits must be prepared when a person has a reasonable cause to suspect that a relic will or is likely to be found. It is essential therefore that individual site archaeological zoning plans be prepared prior to any sub-surface work such as the installation of drainage lines.

Archaeological zoning plans are a planning and management tool to assist in ensuring that development work takes into account the likely presence of archaeological remains, and that appropriate levels of archaeological involvement in the development process can be determined prior to the commencement of work. Archaeological material or the understanding of the archaeological nature of a site, also has the strong potential to provide interpretative material to expand the visitor’s understanding of the place.

The key requirement of an archaeological zoning plan is that it identifies the location of the potential archaeological resources and evaluates their significance. It is the archaeological and other cultural significance of individual structures, archaeological sites or relics which will primarily determine how they should be best managed in the face of development impact, conservation or realising their archaeological significance through research and interpretation.

On an archaeological zoning plan the subject area is divided up into units of archaeological potential. These units will vary according to the individual circumstances of each zoning plan. Generally the area would be divided into units of:

- High archaeological potential where there are known archaeological sites and features.
- Medium archaeological potential where there are potential archaeological sites or features.
- Low archaeological potential where there are no known archaeological sites or features or where there are areas which have been disturbed.

An inventory of known potential sites or features should also accompany each area identified with high or medium potential. Specific management policies or recommended actions should address each of the identified units of archaeological potential. Recommendations may include:

ARCHAEOLOGICAL MONITORING, for sites where the archaeological potential is low or where the archaeological sites and features are of low significance. An Excavation Permit must be issued by the NSW Heritage Office.

TEST EXCAVATION, where the archaeological potential is unclear. Once the archaeological potential of the site is determined further management recommendations such as archaeological monitoring, excavation or conservation in-situ can be made. An Excavation Permit must be issued by the NSW Heritage Office.

ARCHAEOLOGICAL EXCAVATION, for sites where it is necessary to disturb an area of high significance. An Excavation Permit must be issued by the NSW Heritage Office and the excavation programme should be directed by a suitably qualified archaeologist.

IN-SITU CONSERVATION, for areas of high archaeological significance which should not be disturbed and be conserved in-situ. This may be because the archaeological features are of such significance or research value that they warrant retention and conservation in the place where they were found. Management policies should address the long term conservation of such sites.

Excavation Permits are issued under NSW Heritage Act, 1977. Under the Act, disturbance or excavation of land containing or likely to contain relics can only take place when an excavation permit has been granted by the Heritage Council. “Relics” are described in the Act as any deposit, object or material evidence, more than 50 years old relating to European settlement of an area or to a period of European settlement.

The NPWS Historical Archaeologist should be contacted regarding any excavation proposals. This officer has delegated authority to administer excavation permits for minor works for the Service. Major works would be referred to the Heritage Council for approval.

The National Parks and Wildlife Act, 1974 requires Plans of Management to consider the presence of archaeological evidence in the development of management policies and actions. The 1995 Regulations accompanying this Act provide protection for all historical archaeological material more than 25 years old.
8.8 Reference To The Original Conservation Plans

The various Conservation Management Plans prepared on behalf of AMSA in the early 1990s, for the Cape Byron Headland Trust and for the Inner South Head Cottages, have been superseded by this Conservation Management and Cultural Tourism Plan.

Those documents provided a great deal of description and analysis about the existing physical nature of the built environment of the Lighthouses. Other material has been prepared by the Service Conservation Architect or by the individual site managers.

The historical research information remains relevant District staff and the site managers should however regard those conservation plans as background reference material only.

8.9 Public Access And Recreation

Lighthouses have been popular attractions for visitors ever since they were first erected. Each lighthouse has voluminous Visitors Books, dating from their earliest days of operation, recording the visits of dignitaries and ordinary folk. Many record the use of lighthouses as popular picnic or party venues for large organised outings.

On-going management of the Lighthouses needs to recognise that they remain as popular places to visit, either as destinations in their own right or due to their spectacular locations and the vantage points which they offer. Gaining an understanding of the cultural values of the Lighthouse, its setting and other nearby cultural features, including Aboriginal sites, will satisfy curiosity and enhance the visitor's enjoyment of the place. Long term public access is therefore an essential feature of continuing management.

In addition to the actual Lighthouse precinct, the natural backdrop and surrounding topography provides a great variety of recreational experiences for visitors. These include coastal walking trails, fishing, surfing, diving, hang gliding, exploration of the fauna and flora and overnight accommodation where this is already provided within the National Park or State Recreation Area.
The Lighthouse Keepers often entertained guests and friends and the cottages remain as accommodation venues. The experience at Cape Byron and increasingly at Smoky Cape is that the cottages have a considerable attraction for visitors who may which to stay overnight or for short term holidays to more fully enjoy the locations.

Given the high level of community regard and their attractiveness to visitors, there is no doubt that the conservation of the Lighthouses should include programmes of making them physically and/or intellectually accessible to the public.

Each of the individual NPWS Lighthouses has accessibility issues related to its location and topography. The variations of access are a major part of both the visitor experience and enjoyment and the long term viability of alternative use. The majority of the headland based Lighthouses are reached by a journey, either by road or foot, through the adjacent National Park. Point Stephens is accessible by foot across a sand spit which is underwater at high tide. Montague Island is generally reached by small boat from the mouth of the Narooma River. South Solitary Island is effectively not accessible from the sea, given the deterioration of the high level jetty and the hazards of transferring from small craft. The nesting colonies on these islands indicates that only very restricted helicopter access is available.

NPWS have a policy which encourages equitable access to its estate for all citizens. In addition the requirements of various State regulations require that, wherever reasonably possible, access for the disabled be provided for both the public and staff. Clearly easy access for the handicapped can be problematical on some sites, such as Montague Island and to some sections of most sites, in particular access up the lighthouse towers. Considerable care and creativity will need to be exercised if reasonable access is to be made available without undue impact on the significant features of the sites and buildings. Alternative forms of making certain sections accessible, such as the use of alternative media, may need to be considered.

8.10 Navigational Aids

A number of the Lighthouses or headlands will continue to provide operational navigational aids into the foreseeable future. The Heads of Agreement between AMSA and the State of NSW establishes, in Schedule 3 Conditions Relating to Conducting Tours. The intent of these conditions is to enable NPWS to conduct carefully managed tours of a maximum of ten people to the upper sections of the lighthouse towers in a manner which will not compromise the long term safety and reliability of the navigational aid.

The history of lighthouses world wide is one of continuing technological change and development. This will continue and may effect the traditional visual or functional integrity of the lighthouse towers. Current or recent developments within the immediate lighthouse tower precincts include the loss of the signalling flagpole, provision of a helicopter landing pad, solar panels to power the light, radio and weather monitoring beacons and equipment and at Green Cape the construction of a separate steel framed tower. NPWS need to manage the long term impacts of the changing technologies on the overall significance of the resources.

8.11 On-Site Security

As many of the Lighthouses are located on remote but relatively accessible headland locations there are difficult to patrol on a regular basis and are typically not within the regular visual surveillance of the local community or Police Service. Problems have been experienced on most of the Lighthouses in the period since they were de-staffed. Most recently the Head Keepers cottage at Smoky Cape was broken into in the few days between the departure of NPWS staff and the arrival of the residential caretaker. The vacant cottages at Point Stephens Lighthouse were burnt out in 1991 by an act of vandalism.

The Heads of Agreement between AMSA and the State of NSW included a provision (Clause 9) that the State indemnify AMSA against all expenses, losses, damages or costs that AMSA may sustain or incur as a result, whether directly or indirectly, of any loss of or damage to any property or injury to or death of any person due to a number of stated factors.

Traditionally NPWS station live in staff on their sites to provide a level of security that cannot reasonably be provided by security companies. Caretakers are currently stationed at Smoky Cape, Inner South Head, Montague Island and Green Cape. One of the tenants at Barrenjoey has performed a similar function.

The quandary for NPWS is that the amount of residential accommodation at the Lighthouses is limited and there is a strong desire expressed through this Plan to avoid the construction of new
buildings in the immediate vicinity of the historic building ensembles. Accordingly it is often the larger of the cottages, the Head Keepers Quarters, that is allocated to the caretaker, leaving the two duplex cottages available for holiday rental or other uses. This practice sterlises the largest of the cottages, and therefore the one with the greatest re-use and income revenue generation potential.

It is desirable in the medium to longer term for other forms of on-site security to be established and the full range of accommodation on the site to be available for re-use. Nevertheless there will always be a need for on-site supervision and visitor management if the visitor experience is to be enhanced through guided tours or interpretation, security maintained and income derived from sales.

8.12 Compliance With Building Ordinances

In the mid 1990s AMSA commissioned a review of some of the Lighthouse Structures in terms of their compliance with the Building Code of Australia. These reports were partly commissioned to assess the upgrading requirements that may be required should the towers be made available for tours by the public.

The reports examined such issues as fire resistance, access and egress, dimensions of stair cases and exits, the physical dimensions of staircases and balustrades and services and firefighting equipment. In general the towers were found to be lacking in their compliance ability.

Some of the recommended works were relatively minor, comprising such items as the installation of alarms, improvement of locks and latches, provision of fire extinguishers etc. Other works however may have an adverse impact on the architectural qualities of the towers, such as additional balustrades to the stairs and upper platforms and possible enclosures part of the way up the interior of the towers. It is essential that the reports be reconsidered on a site by site basis.

It is essential that a balance be struck for all of the historic building elements within the Lighthouse complexes when formulating an approach to building ordinance compliance. There is a reasonable body of professional knowledge in NSW regarding the formulation of compliance strategies. The typical package of recommendations examines such items as the mix between passive and active fire fighting services,
9.0
Adapting To A New Direction

9.1
The International Experience

Lighthouses around the world are increasingly being made redundant in the face of improved navigational technology and organisational restructuring. For example the US Lighthouse Service was amalgamated into the US Coast Guard in 1939, effectively spelling the ultimate demise of many operational lighthouses, a process which is continuing today. One notable exception is the Boston Harbour Light, Massachusetts, the oldest lighthouse in the United States. This has been continued in operation as a manned station, in recognition of its cultural significance.

The United Kingdom closed its last manned lighthouse in 1998.

In France there are some 150 lighthouses, of which 50 could be visited. The Directorate for Maritime Affairs and Sea Farers, Ministry of Equipment, Transports and Habitation, has yet to initiate a major programme for visitor management. The Government is slowly trying a few individual experiences, on a case by case basis, which will be reviewed after the 1998 season. Conclusions will then be taken and decisions made as to whether they will continue or not. The selected lighthouses are Phare de Gateville, which received 4500 visitors in April 1998, Phare de Balines et Chassion, in the Charente-Maritime, Phare des Sept Iles at Pointe Finistere and Phare de Cordouan in the Gironde. (Personal interview with Emmanuel Mongon)

Due to their general level of public appeal, many redundant lighthouses around the world have either been conserved as museums or adapted into new uses. Given the nature of most lighthouses with their attached accommodation facilities and romantic coastal locations, many lighthouses have been altered into holiday accommodation or restaurants. On occasions these conversions have been confined to the existing accommodation, in others additional cottages have been built in the vicinity. Examples of such conversions are to be found via the internet in the US, UK and Norway.

A number of countries have active Lighthouse Societies, comprising community based groups of supporters. Several have active web sites and regular publications, newsletters, handbooks and retail services. In the US the Lighthouse Digest is a regular monthly magazine, sold by subscription. They have an apparently active readership and carry advertising for regular tourism activities, publications, shopping opportunities and technical literature. Other activities cover memories by lighthouse keepers or their families, travel stories to lighthouses in other countries and calls for lobbying support for contemporary causes. There is a sales catalogue and the magazine also publishes a monthly Doomsday List, identifying a list of lighthouses considered to be in danger of being lost forever.

The US Coast Guard and National Park Service has created, through a partnership venture, the Historic Lighthouse Preservation Handbook. It is aimed at providing essential practical information for all those charged with the conservation of historic lighthouses, particularly in the United States.

The Lighthouse Society of Great Britain has a new computer CD available called Lighthouse Encyclopaedia. It is the first comprehensive data CD ever released for lighthouses and contains over 650 entries for all of the United Kingdom.
**Help Save a New England Lighthouse and get a Great Deal for Yourself**

**US LITERATURE ON SAVING LIGHTHOUSES (21)**

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**BRITAIN**

**Light on, nobody home**

The flag at North Foreland Lighthouse in Kent is lowered during a ceremony to mark the end of the last manned lighthouse in Britain. Photograph by AP/STEPHANE ROUSSEAU

Broadstairs: Britain's last lighthouse keeper handed his lonely vigil over to a computer on Thursday.

From now on, the only sound at the cliff-top lighthouse that has stood on the Kent coast in south-east England since 1693 will be the clicking from cables linking it to a computer some 80 kilometres away. "Walking out and closing the door for the last time, it's not like me being made redundant... my job is finished, the lighthouse profession, end of story," said keeper Mr Derek Cronin.

The first lighthouse at Broadstairs was built in 1499. Before that, bonfires were built on the cliffs to warn ships to stay away from the hazardous Goodwin sands nearby. Broadstairs was the last of 72 lighthouses to be automated, completing a 15-year program that will save the Government £3.38 million a year.

To mark the occasion, a ceremony was held and the lighthouse flag lowered.

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**TOURISM BROCHURE. ARMADALE LIGHTHOUSE NEW CALEDONIA (22)**

**ARTICLE IN SYDNEY MORNING HERALD 28 NOVEMBER 1998**
9.2 The Australian Experience

In Australia, most lighthouses were automated in the last two decades. Since the early 1990s AMSA has disposed of most of its non-operational lighthouses or is in the process of negotiating with various State Governments for their transfer. Typically the lighthouses have been transferred to the Parks Services in each State, for long term ownership and management, with AMSA leasing back that area required to meet operational requirements.

Parks Victoria is the most advanced in their future operational management, by means of selling long term leases to individual operators for approved conservation and cultural tourism activities. A total of six lighthouses were advertised for tender by Parks Victoria and to date most have been leased by private operators, often with considerable catch-up capital expenditure before the lease was settled. A commercial group based at Merimbula, Southern NSW, is negotiating for Gabo Island, given that it has an airstrip suitable for fixed wing aircraft.

Trip the light fantastic

Room at the Inn

Anita Roberts

Horizonal: rain stings my cheeks as I cling to the cold metal railing. Tears are dragged from my eyes and flapping clothes tug determinedly at my limbs. I shout at Bruce, less than 2m away, to hurry up with the photos. But he can't hear me -- the wind, gusting at 110km per hour, carries my words away across the rocky headland.

Our host, Cape Otway Lighthouse manager Bob Adams, is proud of the perfect lighthouse weather we have for our stay. From the top of the 20m tower we watch shafts of sunlight race along the jagged coastline. Below a bruised sky, the headland is brilliant green, divided by white picket fences.

Two historic buildings provide guest accommodation at the Cape Otway Lighthouse. Until recently cheap group accommodation was offered in large bare rooms painted with government-issue greens, blues and pinks. But a change of management, in January this year, has resulted in extensive refurbishment and a range of accommodation options. Guest accommodation is now fully self-contained and attention has been paid to the quality of furnishings — from the lovely Laura Ashley sheets to the Etcetera saucepans and handsome crockery and cutlery. Freshly picked bunches of flowers add to the cheery atmosphere.

The head lighthouse keeper's house, built in 1857, is fully renovated and comfortably sleeps 12 guests in four bedrooms. Our assistant lighthouse keepers' quarters are unrenovated but we enjoy the space and idiosyncratic colour scheme of a family holiday home and the luxury of up-to-the-minute appliances and a wonderful lighthouse view. Two cozy studio apartments are also available for couples. One shares the quirky charm and splendid views of our quarters; the other is newly built, bright and modern.

Comfortable chairs inside our front windows keep me gazing at the sandstone tower. White-capped waves race toward the shore and a damp, salty wind roars over the flattened tea-tree scrub.

From this vantage point I can watch the weather without being molested by it. At the southernmost point of the Great Ocean Road, Cape Otway's weather can encourage snuggling indoors. Board games and a video player are provided, but there is no television reception at the lighthouse. I notice our neighbours in the head lighthouse keeper's house rarely leave their glowing hearth. But I hold the swirling wet air invigorating. Watery sunshine follows the icy rain and twittering birds fill in the wind-flattened scrub.

Day visitors can only enter the Cape Otway Lighthouse and headland on guided tours, run every half-hour throughout the day. Guests staying at the lighthouse can participate in the tours or watch enough as small bands of tourists file through their lighthouse. In the evening, when the last tour leaves the lighthouse gate is locked and guests are alone on the wild headland. But sweeping through theinky darkness is a reassuring beam of light.

Checklist

CAPE Otway is 225km west of Melbourne on the Great Ocean Road. Weekend tariffs include Friday and Saturday night (and Sunday night on all-weekend) studio apartments $245 per couple, $135 per person. For bookings and information, phone (03) 5277 8260. Daily tours of the Cape Otway Lighthouse by arrangement. Brisk winds, no hotels nearby; kayaks and water sports are difficult to use. Beware: Stubs of incredibly fresh air, wonderfully secluded; experience improves as the weather deteriorates.

THE WEEKEND AUSTRALIAN, 11 April 1998
The Victorian pattern appears to be that once the individual lighthouse is leased there is little ongoing co-ordination of tourism and promotion activities across the six lighthouses. Each is left to market itself within the local or regional tourism initiatives. Enquiries of Tourism Victoria revealed little co-ordinated marketing of the now privately operated lighthouses.

Tasmania is in the process of progressively calling for expressions of interest for re-use for some lighthouses. Maatsuyker Island, the most southerly lighthouse in Australia, was the subject of a call for expressions of interest in mid 1998. The Tasmanian Travel Centre in Sydney could only name the Belfont Cottages at the mouth of the Tamar River as site with active promotion of accommodation or tourism activities associated with lighthouses. Lighthouses are used as graphic symbols on the holiday brochures for King Island, but are there only for general sightseeing. There appears to be no active promotion of the lighthouses in Tasmania as tourism resources.

Queensland Department of Environment and Heritage is in the process of calling for initial expressions of interest for the seven main lighthouse complexes that were passed to it for management. This process has been temporarily delayed by the change of Government in Queensland. They envisage a medium term programme of re-use in a tourism context. In each case two Queensland lighthouse towers were retained in operational use by AMSA, with restrictions for visitor access into the tower.

There is some activity in South Australia, with at least one lighthouse complex on Kangaroo Island already available for tourism accommodation.

The West Australian Government is still negotiating with AMSA for the transfer of historic lighthouses and is unable to indicate any likely timetable for re-use.
9.3
The NSW Experience

Macquarie Lighthouse at South Head remains as an active navigational aid and the tower is not available for public visits. It is located adjacent to a popular coastal park and has a very high level of popular recognition. The cottages associated with the lighthouses are privately occupied on very long term leases, generating a right of privacy for their immediate precinct.

A group of two storey townhouses was erected within the overall precinct within the last 20 years. They are generally now regarded as being an intrusive element within an otherwise intact late 19th century precinct. There is an emerging programme, arranged between the Commonwealth and Woollahra Council, to improve public access to the general lighthouse precinct and provide a greater level of interpretation around the precinct.

The majority of those lighthouses within NSW not transferred to NPWS have been transferred to the State Department of Land and Water Conservation. Norah Head is the only major coastal lighthouse in it’s collection with associated cottages. Most are the smaller lighthouses that served as harbour lights or at river mouths.

It has not yet been established what DLWC intend to do with their lighthouses, other than maintain them as operational coastal navigational facilities or as passive tourism attractions in local headland parks.

The last of the larger lighthouse complexes, Point Perpendicular has currently been retained by AMSA.

Both of the remaining lighthouse complexes, Norah Head and Point Perpendicular have the excellent potential for re-use in a cultural tourism context as do the majority of the NPWS Lighthouses. Point Perpendicular currently remains affected by Department of Defence operational requirements in Jervis Bay.
9.4

NPWS Opportunities

NPWS is in an excellent position to optimise the conservation of this important cultural resource in the context of opening them to the public. In the past heritage considerations have often been seen in Australia as restrictive, with historic buildings being regarded as so precious that they could only be used as museums. This attitude has now matured at both national and international levels, with reasonable and responsible re-use now seen as the preferred option for historic buildings. Uses which relate relatively closely with the original uses are considered to have the least impact since they require little change to the building fabric. The opportunities for the re-use of heritage properties are now greater, as is the ability to accept that new uses can be adapted more flexibly to suit the character of existing buildings, rather than demanding unnecessary changes to the building fabric.

Traditionally lighthouses were not readily accessible to the public, since they were primarily there to perform an important navigational and safety role. While some of the sites were popular for visitors or picnics, such as Montague or Barrenjoey Headland, it was often more the attraction of the spectacular location rather than the actual lighthouse complex, which acted as a backdrop to the visit. On South Solitary the Keepers needed to gain permission from the Department before visitors could be allowed to come ashore via the baskets from the elevated jetty.

The existing landscape around the lighthouses is a result of a number of functions which relate to the human habitation when the lighthouses were operational. The requirements of food production, fire control and grazing, to mention but a few are either not relevant or only marginally relevant today. These patterns should be recognised in the cultural landscape conservation policies.

As a result of this tradition of limited access and due to their very high level of public recognition and esteem, the Lighthouses present extraordinary opportunities for NPWS to capture this curiosity and support in the public mind. This support is not simply in the minds of the local community, lighthouses are one of the most recognisable images world wide and enjoy similar support in many countries.

9.5

Options For New Uses

The transfer of the nine Lighthouses to NPWS typically means that new uses will need to be found for the majority of the structures that comprise the complexes. These new uses may be required in the short, medium or long term, depending on AMSA and other operational requirements. In the case of Cape Byron and Montague Island, some new uses are well established.

The Conservation Plans prepared for AMSA in the early 1990s by Clive Lucas Stapleton and Partners and others generally concentrated on conserving the building fabric and typically recommended that the buildings be taken back to the point in their history which was considered to be of the highest significance. In many cases they recommended that all fabric installed after the 1950s could be removed, while all fabric earlier than that date should be retained. Within this guideline new use options were generally left open, given that no future owner or occupier had been identified at the time of their preparation.

Ivar Nelson from Australian Construction Services was more lenient with his CMP for Green Cape. He recognised that future ownership and uses were unknown at the time of writing and was more interested in protecting the overall character within a context of future re-use. Accordingly the Green Cape CMP includes sketches which indicated a large number of internal walls that could be wholly or partially removed from the cottages to facilitate a new use.

Bob Irving and Chris Pratten, in their conservation and re-use recommendations for the Cape Byron cottages suggested that only a small number of internal walls could be removed, and only if absolutely required.

It is interesting to note that during the entire operational life of the various cottages the primary alteration made to them was to open one doorway in the party wall and block off one doorway into the adjacent hallway. This change was generated by an instruction from the central maritime agency in the early decades of this century that one of the Assistants Cottages had to provide four bedrooms to cater for larger families. As each of the duplex cottages typically contained only three bedrooms, one was simply transferred into the adjoining cottage by the simple device of breaking a doorway through the party wall. Typically these doorways have been recently blocked up under the initial NPWS catch up works.
The only other major change to the cottages was the progressive upgrading of kitchens and bathrooms.

In response to NPWS conservation objectives, the preference identified in this Plan is for the cottages to be re-used in their current planning layout but with upgraded kitchens and bathrooms. Minor alterations to the internal walls of these areas may be carried out to improve internal circulation or internal planning, although old chimney stacks should be left standing.

Recommendations for preferred uses are contained in the conservation policies, Section 20.2 and the individual lighthouse Supplementary Information sections.

OVERALL RE-USE OPTIONS FOR LIGHTHOUSE COMPLEXES

THE FUNDAMENTAL CRITERIA for selecting appropriate new uses for the Lighthouse complexes are:

- Uses that are complimentary to the traditional operational and maritime safety role.
- Uses which do not negatively impact on the established natural and cultural landscape character.
- Uses which do not negatively impact on the overall ambience of the places.
- Uses which facilitate managed access to the significance of the places, including interpretation of that significance.
- Uses which can be accommodated within the volumes of the existing buildings or of building volumes which are known to have existed on the sites.
- Uses which reflect the traditional accommodation and support nature of many of the buildings.
- Uses which do not require the construction of new building volumes within the immediate curtilage or precinct, unless for navigational purposes or within very strict criteria.
- Uses which appropriately and sensitively provide tourism facilities, attractions and infrastructure without negatively impacting on the established or traditional visual character of the places.
- Uses which do not generate such large visitor numbers on site at any one time that the ambience of the place is degraded.
- Uses which do not adversely impact on the aboriginal or historical archaeological resources.
- Uses which facilitate the incorporation of Ecological Sustainable Development (ESD) principles.

AVAILABLE USE OPTIONS for the Lighthouse complexes include the following, either in combination or as specific uses:

- Continuation as navigational aids for either international, coastal or recreational shipping, including Volunteer Coastal Patrol meteorological monitoring activities.
- As a base for environmental or wildlife research for the immediate locality. This could include providing accommodation and a base for lengthy research projects.
- Passive use for un-scheduled recreational visitor access to the precinct to enjoy the views or watch the whales, dolphins or bird life.
- Passive destination or highlight on a coastal bushwalking trail.
- Visual backdrop to un-scheduled recreational activities in the vicinity such as surfing, fishing, diving, local tourist cruises or scenic flights.
- Use for NPWS ranger accommodation, on a passive caretaker or site security basis.
- Sub District operation for NPWS Staff.
- Active use as a visitor destination, accompanied by a reasonable provision of visitor amenities, infrastructure and attractions, such as guided tours, retail outlets, food services and interpretation.
- Educational or interpretative centre for both or either European and Aboriginal cultural heritage and traditions, including field studies centre.
- Holiday or Bed & Breakfast accommodation, aimed at various market place opportunities. These could range from the exclusive
hideaway, the cosy weekend retreat with gourmet meals, self-catered week long family or group holiday to school groups.

- Established food outlet such as a restaurant or cafe, which relies on generating sufficient business activity to survive on its own merit.

- Conference or meeting venue for small groups, with or without associated accommodation packages. Again these could be targeted at various levels in the market place.

- Exclusive use by a long term tenant for residential accommodation or continuation of existing accommodation leases, such as at Barrenjoey.

OVERALL RE-USE OPTIONS FOR LIGHTHOUSE TOWERS

THE FUNDAMENTAL CRITERIA for selecting appropriate new uses for the Lighthouse Towers are:

- Uses which will not generate any threat to the fundamental navigational safety role of those towers which retain that function.

- Uses that are complimentary to the traditional operational and maritime safety role.

- Uses which do not require any alterations to the towers, either internally or externally which would negatively impact on their architectural integrity.

- Uses which facilitate managed access to the significance of the places, including interpretation of that significance.

- Uses which can be managed in a manner which avoids any damage to sensitive and historical lighting equipment.

- Uses which do not require alterations or additions to meet safety or building regulations or where sensitive solutions can be incorporated.

- Uses which reflect the traditional support nature of the attached buildings.

AVAILABLE USE OPTIONS for the Lighthouse Towers include:

- The overriding requirement for on-going use as a Operational navigational aid.
- Base for Volunteer Coastal Patrol operation.
- Interpretative displays at the base of the tower, if accommodation is available.
- Storage of certain items related to the operation of the light.
- Fuel storage or emergency generator.
- Focus of precinct tour, with or without access to the upper platforms by guided groups.

OVERALL RE-USE OPTIONS FOR HEAD KEEPER COTTAGES

These cottages are generally the most impressive building on the complex, after the tower. They also provide the greater accommodation, usually at least four bedrooms, sitting rooms, kitchen, bathroom and toilet areas. They are generally notable for generous internal corridors and spacious verandahs.

In several cases the largest cottage has been taken over for on-site caretaker accommodation. Where this is in an isolated location, such as Montague Island and the caretaker is likely to have a family, the use of the larger accommodation facility for this purpose can be justified. In others such as Green Cape and Smoky Cape, such as use, particularly by only two people is not optimum and should be considered as a transitional phase.

The nature of the cottages is such that a combined use for private, caretaker or holiday accommodation with public uses such as interpretation, food services, visitor amenities or retail, is unlikely to be successful.

AVAILABLE USE OPTIONS include all the major support roles of interpretation, retail, offices, meeting rooms, conference venues, food outlets and visitor services. They are also available for holiday or staff accommodation.

OVERALL RE-USE OPTIONS FOR ASSISTANT KEEPER COTTAGES

These buildings are generally arranged as a pair of semi detached cottages situated at some small distance or with some privacy separation from the main cottage and tower. Accommodation generally comprises three bedrooms, sitting room, kitchen, bathroom and often an outside WC. Most have generous verandahs. They generally have some form of defined external
garden or courtyard that can be made relatively private from general circulation patterns around the precinct.

It is unlikely that visitor numbers at any of the lighthouses, even at Cape Byron, would be high enough to require the semi detached cottages to be used for visitor infrastructure functions, particularly if the main cottage is available.

The cottages have a traditional accommodation function within the complex and are very expressive in their architectural presentation. Continuing use for visitor accommodation would be closely aligned with the protection of their cultural significance.

OVERALL RE-USE OPTIONS FOR COTTAGES, SUPPORT AND SECONDARY BUILDINGS

THE FUNDAMENTAL CRITERIA for selecting appropriate new uses for the Head Keeper’s, Assistants Keepers Cottages and secondary buildings are:

- Uses which do not generate such large visitor numbers on site at any one time that the ambience of the particular building is degraded.

AVAILABLE OPTIONS for the Head Keeper’s, Assistants Keepers Cottages and secondary buildings include:

- Small scale or specific theme interpretative location.
- General welcoming point and tour operator base.
- Small scale retail outlet, if other buildings are not available.
- Outlet for Aboriginal cultural heritage and educational outlet.
- Coffee shop and/or sales outlet possibly operated by members of the Aboriginal community.
- Storage for site specific equipment and material, such as interpretative material, landscape maintenance equipment.
- Site specific traditional functions such as power generation, weather monitoring, flag storage or fuel storage.
- Secure parking for staff or visitor vehicles.
- Public toilets.

- Uses which do not negatively impact on the overall ambience of the cottages.
- Uses which require virtually no change to the exteriors of the buildings, including window and door openings, verandah enclosures or courtyards.
- Uses which can be accommodated with little change to the internal configuration, size and spatial integrity of the principal rooms, features, fixtures and corridors.
- Uses which can be accommodated with relatively minimal change to the internal configuration and spatial integrity of secondary or service rooms.
- Uses which facilitate managed access to the significance of the buildings, including interpretation of that significance.
- Uses which can be accommodated within the volumes of the existing buildings.
- Uses which reflect the traditional accommodation and support nature of many of the buildings.
- Uses which appropriately and sensitively provide tourism facilities, attractions and infrastructure without negatively impacting on the established or traditional character of the buildings.
10.0 NPWS Management

10.1 NPWS Management Of The Lighthouses

NPWS has recently acquired or is in the process of acquiring a total of nine major late 19th century lighthouses along the NSW coastline. It does not currently have management or conservation responsibility for the two “book ends” of the Barnet collection, Sugarloaf or Norah Head. Likewise for Point Perpendicular.

The situation with regard to the Lighthouses is unusual for NPWS. From a position of having virtually no experience with managing lighthouses, with the exception of the Cape Byron Headland Trust, NPWS has been given responsibility for nine major sites. While they are all located in or near an established national park, they represent a new form of cultural resource, one with particular conservation problems and unique opportunities for presenting their significance to the public.

The NSW National Parks and Wildlife Service is the prime State agency for the conservation and environmental land management for places of natural and cultural heritage. The Service has a joint charter, under the National Parks and Wildlife Act, which extends the conservation and management role into creating appropriate opportunities for making the cultural and natural values of the places accessible to the public. Recreational and cultural tourism opportunities, including through adaptive re-use, should therefore be identified and managed as part of the overall conservation management activities of the Service in relation to the Lighthouses.

10.2 Plans Of Management

The primary management mechanism for areas within the Service Estate is the preparation of Plans of Management. It is a requirement under the NPW Act that these are prepared for large management areas such as national parks or historic sites and establish management policies and guidelines for conservation and use. A number of the national parks associated with the NPWS Lighthouses already have Plans of Management, while others, such as Botany Bay National Park have reached draft stage.

It will be necessary for each of the Plans of Management to be progressively reconsidered in the light of the findings and recommendations of this Conservation Management and Cultural Tourism Plan and adjustments made as appropriate.

10.3 Gazettal Options

Land or area management by the Service is usually undertaken in relation to a particular category or gazettal type, which includes National Park, Nature Reserve, Historic Site, State Recreation Area or more recently Marine Park. At present the majority of the Lighthouses have not been gazetted into these categories, although the land surrounding virtually every one of the Lighthouses is currently managed by the Service. Consideration must therefore be given to the most appropriate form of gazettal to facilitate the achievement of the conservation and cultural tourism objectives that have been identified for this collective resource.

For the purpose of preparing Plans of Management, NPWS has adopted the IUCN 1994 definition of “National Parks” as a natural area of land and/or sea designated to protect the ecological integrity, exclude exploitation or occupation inimical to the purposes of the designation and provide a foundation for spiritual, educational, recreational and visitor opportunities, all of which are environmentally and culturally compatible. Gazettal as part of a national park is an appropriate option and can facilitate the combined achievement of conservation and cultural tourism objectives.

“Nature Reserves” are areas of special scientific interest containing wildlife or natural environments or natural phenomena. Management of nature reserves concentrates on the care, preservation and conservation of the natural environments, systems and wildlife. Gazettal as a Nature Reserve is not an appropriate option for the lighthouse precincts.

The existing gazettal of the lighthouse precinct on Montague Island within the overall Nature Reserve generates inherent management conflicts in relation to the management of its cultural values. Consideration could be given by the Service to gazette a defined precinct on the island as an Historic Site, although care would need to be given to the recognition of the cultural landscape areas and remotely located precincts that supported the lighthouse operation.
“Historic Sites” are areas reserved under the Act which are “sites of buildings, objects, monuments or events of national significance or areas in which relics, or Aboriginal places, of special significance are situated”. Service policies for the management of historic sites are based on the Australia ICOMOS Burra Charter, that set of principles which guides the conservation of heritage places. Gazetted as an Historic Site is an appropriate option for the lighthouse precincts.

Cape Byron is currently gazetted as a State Recreation Area. This does not give NPWS a sufficient basis for the long term management of the cultural and natural values. It is remote from any national park and should be gazetted as an Historic Site.

The Marine Parks Act 1997 created a new category of parks – “Marine Park”. Areas of water and adjoining land can be declared as marine parks in order to conserve marine biological diversity and marine habitats. In addition the Act establishes a Marine Park Authority, of which the NPWS Director General is a member and a Marine Parks Advisory Council. The Council consists of representatives from marine conservation, marine science, Aboriginal people, tourism industry, commercial and recreational fishers, scuba divers and the Commonwealth Government. In addition, each park will have its own advisory committee with representatives from the local community. South Solitary Island is located in such a Marine Park, although the Park’s jurisdiction extends only below the high water mark.

The choice of final gazetted type for the majority of the Lighthouses should take into consideration the exceptional relationship between the built image of the actual lighthouse complex and the natural coastal settings from which they derive a major part of their significance and attraction. Those sites within or adjacent to national parks should be gazetted into those parks.

Gazetted as historic sites is considered appropriate for Cape Byron, South Solitary Island and carefully selected precincts on Montague Island.

10.4 Options For Management Control

The range of options exist for the management control of the NPWS Lighthouses include:

- Retain NPWS control and manage the individual Lighthouses totally from the Regional and District office level.
- Retain the collective resource and provide a centralised form support for the Districts in their management activities.
- Lease the entire collection to one commercial operator who would then develop them as tourism facilities.
- Lease individual sites to separate entities for commercial development related to tourism activities.

Within the first two options there exists the opportunity to lease individual buildings or even spaces within buildings for activities such as retail or food services. Where particular Lighthouses are adapted for holiday accommodation that operation could be undertaken by a lessee or the reservation and housekeeping services contracted out. As with Parks Victoria, some of the individual lighthouses, could be leased in their entirety to commercial operators, within strict compliance standards and monitoring programmes. However this option is not considered appropriate for NPWS.

The choice of a single comprehensive direction or a combination of different opportunities for individual Lighthouses will ultimately be made by the Service, taking into account contractual, legal, liability and commercial issues which are beyond the scope of this report. However, a number of other factors also need to be considered.

- The NSW Lighthouses display a high level of consistency resulting from their traditional comprehensive management regime. Some form of overall co-ordinated long term management framework should be maintained even if individual sites develop into different re-use directions.
- Some of the Lighthouses are not currently in a position to be readily re-used in a manner which will generate reasonable or self sustaining funding. South Solitary Island is effectively inaccessible for on-shore tourism
activities. The South Solitary cottages and those at Point Stephens will need extensive reconstruction before they can be adapted, while those at Barrenjoey remain encumbered with existing tenancy rights.

- Montague Island is managed as a Nature Reserve and has restrictions on the range of tourism activities that are considered appropriate within that sensitive context. Cape Baily has no commercial use or accommodation potential without the construction of new facilities.

- Some sites, such as Cape Byron, Smoky Cape, Inner South Head, Green Cape and possibly Sugarloaf Point, have immediate or excellent potential in the short term to be very attractive propositions for commercial operators.

Most of the conservation issues related to the fabric and setting of the Lighthouses are common across the whole collection. The development, operational history, architectural characteristics and documentary material of each is closely related and intertwined, as were the personal histories of so many of the Keepers who rotated from one Lighthouse to another along the NSW coastline.

While Montague Island and Cape Byron have been managed within the NPWS framework for some years, the “arrival” of such a large new cultural resource, as represented by the Lighthouses collection, presents such a range of opportunities and challenges for Service staff that the formation of a loose reference committee is considered beneficial.

It is important therefore that the Service establish a management framework that protects and enhances the common cultural values within the decentralised Service structure. Such a framework will enable the individual District Offices, including the Cape Byron Headland Trust, to formulate specific management and conservation approaches against common goals and in response to common issues.

The recommended framework for co-ordinating the approach to the nine Lighthouses is to establish a NPWS Lighthouse Reference Committee. This Committee need only meet on an as needs basis and will provide a unified support service for the responsible site managers. Membership of the Committee can vary as needs demand from time to time and as the entire collective resource is progressively conserved and developed in a cultural tourism context.

An alternative committee framework may be an overall Heritage Standing Committee, to co-ordinate the conservation management across the entire Service estate of cultural sites. This option is not favoured within the context of this Plan as it could deflect the focussed efforts which will be required during the first five or ten years of the Lighthouse management cycle.

10.5 A Co-ordinated Management Framework

In the context of the Lighthouses, the primary division of management within the Service is between Head Office and Regional or District Management Units.

Head Office provides the common support roles that span across corporate directions and policies, finance, staffing, OH&S, public relations and communications, overall cultural heritage conservation, Aboriginal heritage management, archaeological management and natural management.

The Regions and then Districts form the core of the decentralised management structure which deals directly with the various land management areas which are scattered across the State. In the case of the Lighthouses, each is managed by a different District Office.

Under normal circumstances each District would manage its own resources in a relatively autonomous fashion, referring primarily back to general Service principles and procedures under the general framework of the Act.

The nine Lighthouses represent a different and unusual challenge for the Service. They are a cohesive cultural resource, despite their geographic spread and were established and continuously managed under a centralised regime at either State or Commonwealth level.
10.6 Revenue And Expenditure Issues

THE DEMISE OF TRADITIONAL FUNDING ARRANGEMENTS

When the Lighthouses were first transferred to NPWS, the NSW Treasury allocated funding to enable the Service to undertake initial catch-up capital works and planning or preparation work for their immediate future. The majority of this funding has now been expended. It is essential therefore that future funding streams be identified and secured.

Traditionally the lighthouses performed a specific function with regard to maritime navigation and safety. For this they had a ready marketplace, the shipping owners that benefited from the safe and reliable passage of their vessels. Since medieval times Trinity House in Great Britain and other organisations in many countries erected and managed lighthouses, supported by the income derived by extracting dues from passing shipping. A similar system operated for most Australian lighthouses, although the relevant government authority acted as the management and revenue raising body. For the majority of the 20th century, the Commonwealth Lighthouse Service was recognised as a profitable operation within government. It extracted dues and provided safe navigation.

With the demise of the connection between lighthouses and shipping dues, coupled with the automation of most major lights, the guaranteed income stream for individual lighthouses has ceased.

THE POTENTIAL FOR RAISING NEW FORMS OF REVENUE

One of the objectives of this study was to identify mechanisms for revenue raising from the lighthouses without adversely affecting their cultural significance. It was recognised that some of the lighthouses could generate quite reasonable revenue from cultural tourism activities, while others had very little opportunity, at least in the short term. A parallel study by Hassell Associates was commissioned by the Service to examine the revenue potential of the lighthouses, given the recommendations arising from this Plan.

It will be critical for NPWS to identify and secure long term maintenance funding for the Lighthouses under its care and management.
While some sites such as Cape Byron, South Solitary and Barrenjoey, still have outstanding works, the catch-up works undertaken over recent years have generally returned the building fabric of most of the complexes to a condition that equated with their typical operational state. Adequate and on-going maintenance funding and activities by the Service will ensure that this state of the buildings and grounds is retained, thus avoiding the longer term need of massive catch-up expenditure.

In the case of Cape Byron, Smoky Cape, South Solitary, Cape Baily and Montague Island, AMSA will continue to maintain the lighthouse towers, in accordance with the Heads of Agreement.

THE NEED FOR STAGED CAPITAL WORKS PROGRAMMES

NPWS typically has insufficient funding for the breadth of its service commitments and conservation works. This is increasingly the norm across the public sector. Annual capital works and maintenance budgets are formulated to a set of prioritised needs and opportunities.

The Service recognises that not all of the recommendations contained within this Plan can be implemented in the short term. Equally this Plan recommends that a staged approach be adopted for the overall capital works and development opportunities that have been identified for the NPWS Lighthouses.

A staged approach not only eases capital funding requirements but ensures that adequate research and thorough planning are undertaken before development activities begin. This will be the case with the recommended reconstruction of the Point Stephens cottages. The Cottages at Barrenjoey are likely to be unavailable for some years and the issue of visitor access to South Solitary Island is not easily resolved.

Of equal importance in this context is the need to maintain the public interest in the “attraction” represented by the Lighthouses. It is essential that new “products” are periodically presented to the public if their interest in the collective resource is to be sustainability upheld and progressively renewed.

ALLOCATION AND USE OF GENERATED REVENUE

One of the most important aspects to be resolved within NPWS is the allocation of the funding generated through the individual sites and the
general off-site income. Traditionally all revenue generated through the management of National Parks was forwarded into consolidated revenue, for distribution across the Service as required. In that way the high revenue generating Parks, such as Snowy Mountains and Ku-ring-gai, made significant contributions, while Parks or sites with little potential for income generation received a benefit from the common efforts.

Special Purpose Accounts have been established in some areas to manage the funds derived from particular activities. The potential should be explored for some of the funds generated at individual Lighthouses to be directly allocated back to those sites. This will encourage individual site managers in their overall management efforts. However, the funding of non revenue generating sites must also be considered. The potential for the revenue generated across the entire collective resource to be largely retained for the management of the resource should also be examined.

10.7 Commercial Lease Guidelines

It is likely that the Service will enter into various commercial agreements with lessees or operators to deliver some of the activities related to site security or cultural tourism. There have been instances with the early attempts to achieve this form of service delivery where the incoming operator lost sight of the NPWS conservation and other objectives in the pursuit of their individual operational objectives.

It will be essential for the Service to formulate small guideline pamphlets for individual operators which clearly identify the heritage qualities, the conservation management objectives and the obligations of the operators in this regard. These guidelines will be in addition to any commercial lease or other arrangements.
11.0 Interpreting The Collective Resource

11.1 Background

Reasonable and well managed access to cultural development and cultural heritage is both a human right and a privilege. It brings with it a duty of respect on the part of the visitor. Interpretation plays an important role in making the cultural heritage accessible to people.

Heritage interpretation is a process that plans and provides for all visitors, potential visitors and the public at large, physical, intellectual and emotional or spiritual access to the cultural and ecological significance of places, objects, natural systems, ceremonies, human activities and living things.

Through appropriate media and technologies and the responsible stimulation of ideas and opinions, it encourages the protection and conservation of the cultural and natural heritage. It also encourages and facilitates their appreciation by and for present and future generations.

A self contained Interpretation Strategy for the NPWS Lighthouses as a collective resource is contained in Part G of this Plan.
12.0
Managing The Tourism Experience

12.1
Making Significance Accessible In The Tourism Context

Tourism can provide many benefits for conservation if managed well. It is a major vehicle for cultural exchange and provides opportunities for people to experience at first hand the culture and heritage of other places and communities. Both conservation and tourism interests now recognise the need to achieve a sustainable future for the cultural heritage.

A major reason for undertaking the protection, conservation and management of heritage places, the intangible heritage and collections is to make their significance physically, intellectually and/or emotively accessible to the host community and to visitors. If the public are excluded from the cultural heritage the whole conservation process will be marginalised and not gain the critical levels of funding or public and political support so necessary for its survival.

Tourism at historic sites can be a significant generator of economic benefits, provided it is managed in a manner which respects the natural and cultural values of the place. The economic benefits derived from tourism can include a direct source of revenue for the conservation and interpretation programmes at the site. These may include Aboriginal site interpretation. Aboriginal site tours at these places broadens the tourism experience and provides opportunities for Aboriginal community based tourism ventures. Tourism can also provide a benefit to the local or regional community by enhancing the scope and attractiveness of the local tourism assets.
12.2
The Symbolism Of Lighthouses

The greatest value of the Lighthouses lies in their symbolic power.

There are few other building types in the western world that are so readily recognisable despite the enormous variety of their architectural imagery, form and almost everyone has a personal connection with the romance of symbolism of lighthouses.

It is interesting that while almost everyone can relate to lighthouses, relatively few people have actually visited one.

The symbolism and imagery of the lighthouse is such that most people do not need to visit a lighthouse to develop an emotional attachment to it. A parallel could be drawn to Mount Everest. While almost no-one gets to climb the peak, everyone can share in the power of the summit. There is almost as much strength in the visual imagery available through photography and film as there is from an actual visit.

The most powerful part of the Lighthouse symbolism is probably the symbolism of the “Peak” or climax. People don’t go to Cape Byron because of the nature of the lighthouse precinct. They go because it is at the “edge of the world”, the most easterly point on the mainland. There is nothing after that but the huge expanse of ocean. Australia does not have the mountain peaks of Europe or Central Asia, but the analogies of the lighthouses with “peaks” are striking. The undoubted climax of any successful visit is clearly reaching the “peak”, or climbing the lighthouse tower. That is why it is so important for NPWS to negotiate managed access to as many of the towers as possible.

This concept can be extended into “collecting peaks”. Since each lighthouse becomes a goal to win, a market exists for those who want to “make all the lighthouses”. This may not be in a single trip and may take several years, with each achievement being recognised by a stamp in a “Lighthouse Passport”.

The symbolism is so strong that it has value as a commodity, a potential revenue source. The NPWS Lighthouses, along with several others in NSW, represent a unique product group within the wider national and international collections of lighthouses and general coastal attractions. It is vital that this product is well promoted and has any potential to develop revenue explored.
Exploitation of the imagery will also increase the likelihood that more people will visit the actual lighthouses.

The long term goal should be that each time a person in NSW commercially uses a NPWS lighthouse image some revenue is captured which can then be used to finance the conservation of the collection. It is too early to say how and there will never be a total coverage of the field.

12.3
Current State Of Cultural Tourism At Each Lighthouse

Of the lighthouses recently transferred to NPWS, each is at a different stage of conservation and re-use in a cultural tourism context.

CAPE BYRON

Cape Byron is the most advanced, given its management, since the lighthouse was closed in 1986, by the Cape Byron Headland Trust. Building conservation is well managed. The site is a major tourism destination and the lighthouse is held in very great respect by the local people. It is estimated by the Trust that some 400,000 people visit the headland and the complex annually. Revenue from a range of activities and visitor related sources, including on-site parking, a well managed retail outlet, concession fees, rents and a successful holiday accommodation programme is very good and well able to sustain the management operation. Interpretation programmes are also well established.

SMOKY CAPE

Smoky Cape is the second most advanced in terms of its planning for cultural tourism. The buildings have undergone a general catch-up maintenance programme and holiday lettings of the two Assistant Keepers cottages commenced in May 1998, to an excellent reception. The Head Keepers Cottage has initially been retained for on-site caretaker accommodation. The Caretakers are required to perform an agreed period of site interpretation and management each week. They have the opportunity to provide Bed & Breakfast accommodation in the main cottage. Smoky Cape is relatively close to the very popular tourism destination of Trial Bay Gaol at South West Rocks.
SOUTH SOLITARY ISLAND

Final agreement with AMSA regarding the transfer of the Island to NPWS has yet to be achieved. Given its remote location and extremely difficult access, little has been done to maintain the buildings at South Solitary, other than regular maintenance of the tower and operational light by AMSA. General visitor access to the Island is effectively not available, but the Island is a popular destination for tourist cruise boats into the Marine Park off Coffs Harbour. The spectacular gantry, which formerly provided access from boats, is in poor condition but remains as one of the most evocative structures in the entire NPWS collection.

SUGARLOAF POINT

Tourism is confined to pedestrian visitors who leave their cars at the carpark, approximately 1km from the lighthouse, or walk from the nearby beaches and holiday village of Seal Rocks. The caretaker deliberately leaves the gates open and answers visitors questions as required. There is very little signage or interpretation, but visitors enjoy the spectacular topography.

POINT STEPHENS

This complex is in the worst condition of all the NPWS collection, given the fire damage to the cottage complex and subsequent vandalism, in the years before NPWS took control. The site is a popular destination for coastal bush walking and is adjacent to Port Stephens and the Tomaree Headland, both major tourism destinations for the Sydney and Newcastle market places. Conservation works are currently limited to preservation of the ruins and general improvement of the overall precinct. Consideration needs to be given to the possible reconstruction and re-use of the cottages, to overcome their present dilapidation and loss of opportunity.

BARRENGJOEY HEADLAND

The Burrenjoey Headland is a popular coastal walking destination for the local Palm Beach community and the wider population of Metropolitan Sydney. Each of the cottages is currently leased to established tenants and is not considered to be available for tourism related uses in the short to medium term. This arrangement was instigated by the Commonwealth. The NSW government is bound to honour this agreement until further notice. Other cottages, located near the beach at the base of the headland may be available for re-use,
subject to extensive improvements in the condition and infrastructure.

INNER SOUTH HEAD

The Head Keeper’s cottage has recently been extensively reconstructed and is currently being prepared for re-use by service staff and artists. The Assistants’ Keepers cottages are currently utilised for staff accommodation but could be available for re-use. The headland site is spectacularly located at the southern entrance to Sydney Harbour with excellent views back to the city. It is a major viewing platform for such events as the annual Sydney Hobart Yacht Race. Access to the site is by coastal footpath. Vehicular access through the adjoining military base is available only by special arrangement on certain occasions.

CAPE BAILY

This 1950s lighthouse is a single free standing tower, of humble design, but well sited on the outer edge of the Kurnell Peninsula. The lighthouse is located adjacent to an extensive coastal walking track and within the vicinity of the Captain Cook Landing Place Historic Place. There is little opportunity for direct on-site re-use of this operating navigational aid.

MONTAGUE ISLAND

Montague Island is a managed as a Nature Reserve, establishing a clear priority for re-use. It has become a popular visitor destination for NPWS arranged short duration tours from Narooma, although the weather is a major factor, limiting access to an average of only two days in every three. NPWS has managed the Island for about ten years and is currently establishing a museum and retail operation in one of the cottages. The other cottages are used for accommodation by Service staff or scientific research personnel.

GREEN CAPE

Green Cape has been the subject of catch-up maintenance work throughout 1997-98 and is being prepared for holiday accommodation. The Assistant Keepers cottages offer an excellent potential in this regard. The main cottage is currently used for caretaker accommodation. The site is a popular tourism destination and guided tours of the Lighthouse tower are available.

12.4 Managing The Visitor’s Expectations

One of the key factors in the success of any cultural tourism venture or attractions is managing the visitor’s expectations. If the visit exceeds the expectations the visitor will carry away good memories and possibly return or encourage others to visit. If the expectations are not met, then the opposite will occur and the site will get a poor reputation.

There are several aspects to managing expectations that are applicable to the NPWS Lighthouses:

- Ensure that the imagery and information contained in promotional material or campaigns are realistic, give a fair impression and are accurate about what attractions, services and facilities are available.

- Ensure that the potential visitor is informed about the current state of the place and any works programmes or works-in-progress that may temporarily reduce the overall experience.

- Ensure that there is accurate information about opening times, fees or charges, limitations of access or other restrictions.

- Ensure that the potential visitor is informed about the significance of the place and the steps that are being taken to protect and conserve those values. Included in this will be advice about any particular behaviour which the visitor should adopt when at the site.

- Ensure that the potential visitor is appraised of the differing values which some people in the community may ascribe to the place.

This information need not be presented in a laborious or authoritarian manner and its delivery may be spread from the initial image making, such as brochures, travel information and publications to the signage at the gate or the information on the interpretive handout material.
12.5 Characteristics Of Significance That Enhance The Visitor Experience

The following characteristics can be considered as the tourism attractions at the NPWS Lighthouses, although not all are or can be available at each place, if the significance and ambience are to be protected:

- The isolated remoteness of the locations of most of the lighthouses, situated “at the edges of the world”, the points where the land meets the great vastness of the oceans. Cape Byron, for example, is the most easterly point on the Australian mainland.

- The natural landscape of the backdrops, often including large areas of national park, that provide an effective break from normal urban or rural environments. In many cases the journey through the national park or marine park to the lighthouse is a major component of the overall attraction.

- The viewing platforms for enjoying the wild coastal topography of cliffs, headlands, rocky shorelines, bays, harbour entrances, river mouths, estuaries and nearby beaches. The sense of danger and threat from the vast and unpredictable powers of the sea and the steepness of the cliffs. All this drama and danger can be appreciated from the safety of the pathways and viewing platforms.

- The vantage points for whale watching.

- The strong natural, ecological and wildlife characteristics of the settings and larger precincts, including the associated NPWS natural resource management programmes.

- The isolated off-shore locations of South Solitary, and Montague, coupled with the need for boat or aerial access. Point Stephens enjoys a similar sense of isolation.

- The presence and symbolism of the lighthouse tower which adds greatly to the natural drama of coastal topography. While there are many spectacular headlands and promontories along the NSW coast, those with lighthouses are visually more dramatic in the public mind. Where possible, access into and up the tower adding enormously to the attraction and symbolism of the lighthouse.
• The historical role of the lighthouses as navigational aids.

• The romantic and adventurous associations which almost everyone makes in their own minds with the lighthouse and all that it conjures in the imagination. Linkages with wrecks and dramatic rescues, the purity of the architectural expression of the tower against the topography and the scale of man against the sea all build in the imagination of the visitor.

• The operation of the light at night is very evocative and in some cases visible from nearby urban or tourism areas. Cape Byron light in particular is a very powerful presence in the township at night.

• The relatively unchanged character of the lighthouse and its precinct since they were first erected, giving a sense of being within a unique time capsule. The slow evolutionary nature of the lighthouse technology and its limited effect on the nature of the complex.

• The collection of cottages within a defined, but not necessarily enclosed precinct, providing an evocative sense of people living in a remote location, doing an important job in the face of some adversity.

• The sense of the historic precinct and its cultural landscape as a special place is quite strong, with the visitor feeling privileged to visit the place.

• Stories of the lifestyles of the Keepers and their families hold a special fascination for the general public.

• The stories and traditions related to the coastal settings of the lighthouses that have meaning to Aboriginal people. As these are made more accessible to other people, they will gain an added understanding of the layered meaning of the places.

• Coastal walking tracks to nearby natural features or other cultural sites.

• Secluded beaches and coves.

• Off-shore or coastal underwater diving sites and fishing grounds.

• Historic shipwrecks and cemeteries.

• Nearby Defence sites which have captured the same “outlook” advantages of the headland settings as the lighthouses.

12.6 Potential Tourism Experiences

There are a range of potential individual or group tourism experiences that are available at the various NPWS Lighthouses, although not all will be possible at every place, if they would adversely affect significant characteristics. Individual Site Tourism Plans will guide the application of these potential experiences at each lighthouse.

The Basic experiences could comprise:

• Enjoyment of the journey to the place, on foot, by vehicle, boat or helicopter, moving through the surrounding National Park, coastal waterway or Marine Park.

• Enjoyment of the spectacular coastal topography and the contrast of the small lighthouse structures against the powerful natural features.

• Exploring the lighthouse complex and learning about the place, its history, the keepers and their lifestyles, shipwrecks, its architecture and technology, the functional role and importance of coastal safety.

• Participation in specific interpretation programmes, guided tours and explanations.

• Social activities held at the lighthouse, such as picnics, parties and functions.

• Recreational activities in the vicinity such as bush walking, surfing, swimming, diving and hang gliding. Several sites, particularly Montague offer penguin watching and guided nature reserve exploration.

• Opportunities such as conference venues and meeting facilities.

• Non tourism activities which can add to the visitor experience include scientific research, Volunteer Coastal Surveillance operations and meteorological recording.

• A whole series of special events and packaged experiences are available, including “be a lighthouse keeper for a day” and the night experience of the light and the solitude.
The Special experiences could include:

- Climbing the lighthouse tower if available to enjoy the added drama of the elevated viewing platform.

- Whale and dolphin watching at particular times so the year. Penguin and seal watching at Montague Island, bird nesting and breeding at the Island sites.

- Watching sunrise, sunset or moon rise over both land and water.

- Overnight or short stay holiday accommodation in a remote or historical location. This could range from a romantic package for couples, family or group accommodation to school parties.

Experiences of the essential site services could include:

- Cafe or restaurant style food outlets. These could be walk in or a packaged format with a gourmet style operation.

- Souvenir and memorabilia purchases.
12.7
The Journey And Arrival As Key Visitor Experiences

All of the Lighthouses are situated within national parks or nature reserves. The average visitor travels from the city, a town or an established tourism centre until they approach the vicinity of the national park. There is little that can be done to enhance this section of the journey. NPWS are in a strong position however to manage the whole experience between the entry point into the Park and the culminating point of the Lighthouse.

The real key to the overall experience is the entrance to the National Park. There should be signage which not only welcomes the visitor to the Park but makes it clear that this particular Park has something special, the added attraction of a Lighthouse. In some cases, most notably Barrenjoey and Inner South Head, the visitor actually enters the Park on foot and at Sugarloaf Point the visitors walk along the road. At South Solitary, Point Stephens and Montague the journey is essentially by small cruise boats or launches.

NPWS should continue to reinforce the general and the specific national park experience as the Lighthouse visitor moves through the Park. It is an area in which the Service has great expertise and is a vital part of the overall journey and visitor experience. It is the introduction through the Park that reinforces all the attributes of isolation, natural backdrop, coastal topography, Aboriginal associations and edge of the world that are an integral part of the significance and attraction.

In every case it is essential that the visitor completes the journey to the Lighthouse on foot, irrespective of how the remainder of the journey was undertaken. Any parking areas should be kept away from the immediate Lighthouse precinct. At Cape Byron the cars and buses that are allowed into the hill top precinct degrade the atmosphere and significance of the Lighthouse complex.

Finally the ultimate visitor experience is to climb the tower and enjoy the enhanced pleasure of the spectacular views. The culmination of the attraction or challenge and the achievement of the climb transforms the Lighthouse into a major destination. Most of the Lighthouse towers are accessible, but only under the conditions for guided tours set out in the Heads of Agreement.
12.8
Aboriginal Cultural Tourism

Aboriginal cultural tourism relates to the sites and history of the Aboriginal associations with the area. These may range from archaeological deposits to recorded interactions and the information of older members of the community on their connections to the place. The tourism experience may include guided or sign posted self-guided tours of bush tucker, archaeology, Aboriginal material culture or economic adaptations to the land, land rights history; or interpretive displays and other promotional material including local Aboriginal arts and crafts, located within the lighthouse precincts.

The Service has long recognised the tourism potential and community interest in the Aboriginal resources of the Parks. Members of the local Aboriginal communities at each of the lighthouses are keen to develop such products, some possibly in conjunction with the NPWS. Many communities resent the appropriation of Aboriginal culture by non-Aboriginal people for profit and to some extent this includes the promotion and use made of Aboriginal sites in National Parks by the Service. Aboriginal communities are actively attempting to establish themselves as tourism managers and operators in their own right and gain “tourism dollars” for the benefit of the Aboriginal owners or individual Aboriginal tour operators. Notable examples of this include the development of the Yarrawarra Conference Centre north of Coffs Harbour, the Umbarr Cultural Centre of the Yuin people near Eden and the development of a business plan incorporating tourism products and enterprises at the Coffs Harbour LALC (Janet Layton pers. comm).

There have been some highly successful Aboriginal managed and operated tourism projects in NSW and some of the best have been developed in conjunction with the NPWS eg. the Aboriginal Discovery Tour program of the NPWS, the guided tours of the Mutawintji Local Aboriginal Land Council at the Mootwingee Historic Site. Cultural tourism is still a developing industry and it is seen by some communities as way the Service may extend its role as promoting local Aboriginal employment. Some communities have been operating heritage tours (La Perouse, Narooma, Sydney, Coffs Harbour) or are developing independent commercial operations (Coffs Harbour, Eden, Port Stephens). Sites within Service managed lands are often the focus of these endeavours. Groups wishing to establish their own operations require a NPWS license.

Aboriginal communities have expectations of further involvement or the establishment of Aboriginal guided tour products and see the use of the lighthouses and the National Parks in which they are situated as integral to these endeavours. These issues should be resolved as part of the general consideration of cultural tourism opportunities at each Lighthouse site.

12.9
Limitation Of Access Opportunities

The issue of reasonable or reliable access is also an important constraint when exploring the cultural tourism opportunities that may be available at several of the Lighthouses.

CAPE BYRON

Cape Byron is located on a limited and extremely narrow ridge above a deep valley. The access road is steep and relatively narrow, providing few opportunities to establish parking areas within a reasonable walking distance from the Lighthouse precinct. With its high volume of visitor arrivals on a year round basis and very high peaks in summer vacations, the current response has been to allow cars and buses into the precinct to park in the space between the Keepers Cottages. Carparking fees provide a strong source of revenue but the current level of cars and buses parking on site is severely degrading the atmosphere and visitor appreciation of the place for a large part of each day.

SMOKY CAPE

Smoky Cape is well served by road access and has a reasonable carpark that is set to one side of the precinct entry. The Lighthouse precinct is located on a narrow steeply sloping ridge, with the two cottages and tower connected by a steep narrow pathway that is fondly referred to as “Heart Attack Hill”. This situation mitigates against reasonable access for the disabled, suggesting the installation of moving platforms or ramps which may degrade the overall visual character and impede access by others along the pathway. A less intrusive manner could be the use of a “golf cart” vehicle.

SOUTH SOLITARY ISLAND

South Solitary Island is effectively inaccessible, indicating that most of the visitor appreciation of the place must be by telescope from mainland vantage points, from helicopter joy flights, cruise boats or on film. The old high level jetty is now structurally unsafe and the traditional basket lifts
totally inappropriate in contemporary terms. Helicopter access can be unreliable due to unpredictable weather conditions and must be severely limited to avoid disturbance to the seabird populations.

SUGARLOAF POINT

Sugarloaf Point has limited road access to the base of the hill, but visitor parking is not allowed. To reach the lighthouse, the visitor has a steep walk up between and past the cottages. It is an easy accessible walk past the cottages to the lookout point.

POINT STEPHENS

Point Stephens is located on an island which is connected to the mainland by a sand spit which goes underwater at high tide and is regularly washed away in big seas. While there are no established landing points on the island, the adjacent beach is well sheltered by the sand spit. Well timed access by four wheel drive vehicles is available for servicing but most access will continue to be by foot across the spit or by water transport from Port Stephens.

BARRENJOEY

Barrenjoey Headland is accessed by walking along the inner beach from the Council carpark and climbing the road or established tracks to the summit. The length of the connecting peninsula means it is a long walk from alternative parking areas and public transport, if patrons are unwilling to pay the not inconsiderable Council parking fees. Controlled four wheeled drive access is available to the summit.

HORNBY

Inner South Head and the Hornby Lighthouse are easily reached by foot from the nearby parking areas near Lady Jane Beach and the ferry or bus services to Watsons Bay. The walk is a pleasant and comfortable stroll along the low cliffs above the Harbour, although additional access is required at the beach entry point. Vehicle access is more problematical as the road connection to the Lighthouse complex traverses the adjacent Defence Establishment. Vehicle access is only by prior arrangement and reliability cannot be guaranteed. The current co-operative relationship with the adjacent military personnel is successful but cannot be taken advantage of.
CAPE BAILY

The road access to Cape Baily from the north is excellent but stops at a parking area a considerable distance from the Lighthouse, that from the south requires major upgrading and management control to stop the dumping of rubbish. In both cases the only way to reach the Lighthouse is by a pleasant and easy walking track along the coastline.

MONTAGUE ISLAND

Access to Montague Island is by small boat, given the nature of the landing stage and the restrictions on helicopter access to the Nature Reserve. The reliability of access to the Island is controlled by the weather and sea conditions at the Narooma Bar, from where the scheduled cruise launches leave. On average, access out through the Bar is only available on two days in every three and the weather conditions can change at short notice. Two local fishermen were drowned while attempting to cross the Bar in early June 1998. The alternative access, from the port at Bermagui, adds considerably to the cost and time of the journey and is not readily available.

GREEN CAPE

Green Cape is located south of Eden and is approximately 20km off the sealed local road. The journey is reasonable but the long, narrow, unmade road would discourage many drivers and bus operators.

12.10
Cultural Tourism Potential Of Each Lighthouse

Not all tourism experiences are available at every NPWS Lighthouse. Indeed the very concept of the collective resource and co-ordinated promotion means that some differentiation of tourism product within the collection enables the individual sites to offer particular attributes.

In addition to the common attributes the different contribution of each to the collective tourism product can be summarised as follows:

CAPE BYRON

Cape Byron is the easterly most point on the Australian mainland. The Lighthouse precinct is the most advanced in terms of tourism development and the experience of the operators and managers is most advanced in this regard. The cottages have been rented for holiday accommodation and enjoy a good level of occupancy. Cape Byron has also made good use of the wealth of creative talent in the region to create a range of high quality and distinctive merchandise which has been very successful in the retail outlet. Byron also offers salient lessons in the problems that can be experienced from very high levels of tourism and traffic generation.

SMOKY CAPE

Smoky Cape can also now offer holiday and B&B accommodation, coastal walks, excellent beaches and world class diving sites. It has a close physical relationship to Trial Bay Gaol and a World War Two camp. The site has important Aboriginal mythological attributes. The village of South West Rocks is home to at least eight retired lighthouse keepers, with their memories and stories.

SOUTH SOLITARY

South Solitary Island offers a totally different perspective. Being almost inaccessible, it must be appreciated from a distance and promoted as a non visitation experience, in the short term at least. Since it remains as a popular local icon, the Island and Lighthouse complex offer opportunities for film and virtual reality interpretation of its significance.

SUGARLOAF POINT

At Sugarloaf Point the caretakers role is still important. The two cottages could easily be made available for accommodation. The low key Xxxxxxxxx levels make retail and food services doubtful. The secondary buildings could be made available for interpretive displays.

POINT STEPHENS

Point Stephens offers the most accessible of the "island" experiences and has a particularly attractive natural curtilage, with plenty of opportunities for family style recreation. The vandalised cottages provide potential for medium reconstruction and holiday accommodation. Managed access up the tower is available.

BARRENJOEY

Barrenjoey Lighthouse will not have its cottages available for the foreseeable future due to the existing tenancy rights. The Headland offers spectacular walking tracks and vantage points and is a popular destination with residents of northern Sydney.
HORBY

Inner South Head and Hornby Lighthouse offers the most accessible site in terms of the enormous numbers of visitors to Sydney and the Harbour. It demonstrates not only the Lighthouse but a series of fortifications that reinforce additional stories about Sydney. The views and outlook are spectacular and the long term re-use of the cottages offers holiday accommodation and interpretive potential.

CAPE BAILY

Cape Baily is the most recent NPWS Lighthouse and has no associated buildings or other structures. It does form a focal point for the coastal walking track and an extension of any interpretive themes developed in the nearby Visitors Centre.

MONTAGUE ISLAND

Montague Island is managed as a Nature Reserve and offers the very popular penguin watching tours in addition to the interpretive visits to the Lighthouse complex. One of the Assistant’s cottages is being established as a museum of the original 1881 occupation. Montague is the only site to offer an accessible island experience.

GREEN CAPE

Green Cape will offer holiday accommodation from late 1998 and has managed tours of the tower available. The site has excellent opportunities for interpretation of Aboriginal tourism and can readily reinforce the well known imagery of Eden as a whaling port.

12.11 Visitor Management

Most of the NPWS Lighthouse sites are currently managed as tourism sites on a low key basis. Smoky Cape recently took on a caretaker and there are caretakers at Green Cape, all of whom will take guided tours or undertake other interpretation and retail sales activities on a part time basis. Point Stephens, Barrenjoey, Hornby and Cape Baily cannot sustain on-site personnel, other than in exceptional circumstances. Visitors to South Solitary Island are essentially managed through the cruise boat operations.

Only at Cape Byron, where on-site staff actively manage the visitor experience and Montague Island where there always a ranger accompanying the tourist parties, is there sufficient justification for supporting staff who can meet and greet the visitor and guide their experience of the site.

The nature of many of the sites is such that closely guided tours are not necessary for the majority of the visitors, whom perhaps only wish to experience the view and the symbolism of the place. Guided tours, especially up the tower, are a bonus for such visitors.

For those sites which can sustain a part time caretaker or ranger, it is important to concentrate the visitor operations into one building, such as the Head Keeper’s cottage. This will enable the staff member to respond to interpretive queries, sell food or beverages, souvenirs and generally mix with the visitors. The operation is also sufficiently secure that the building can be locked if a tour party is to be escorted around the precinct.

The preferred situation is for every site to be staffed for the majority of the time, particularly during periods of popular demand such as school holidays. The visitor experience is greatly enhanced by the presence of a guide or ranger to humanise the visit. NPWS should explore other options than simply having the live in caretaker, at least in the longer term. However, the skills and personality of the “site manager” are of critical importance in the success of any tourism venture. Recruitment policies must be well resolved in this regard.

The nature of tourism demand along the NSW coast is the large fluctuations in numbers depending on the season and patterns of holidays. It is essential that NPWS maintain adequate staff on site during the peak periods. In this regard the Discovery programme has been most advantageous.

There is no doubt that any tour of the lighthouse tower will need to be fully supervised and controlled. The climb up the spiral steps can be hazardous and the available space around sensitive and fragile equipment very limited. Since the tower tour is a major highlight of the visit, it is essential that as many of the towers be made accessible as possible for guided tours. This made need further negotiations between NPWS and AMSA.

12.12 Establishing Limits Of Acceptable Change

Management of the level and methodology of the overall lighthouse precinct is essential if the
tourism experience is not to be degraded. For example the experience of staying in the remote Lighthouse cottages will be devalued if the precinct is too crowded, even during the day or if privacy is denied. Excessive or poorly managed tourism can degrade the ecological and natural values of the locality or settings.

The assessment of “Limits of Acceptable Change” at heritage sites has largely replaced the earlier concept of “Carrying Capacity”, a mechanism which is now largely regarded by the tourism industry as outdated. Limits of Acceptable Change must be defined on a site-by-site basis. Before the Lighthouses are heavily promoted or developed for increased tourism, management plans should establish limits of acceptable change, particularly in relation to the impact of visitor numbers on the physical integrity, ecology and biodiversity of the place, access and transportation systems and the social and economic well being of the local community.

12.13 Preparation Of Tourism Plans

The fundamental assumptions of a Tourism Plan are:

- That conservation works should precede tourism.

- That conservation is a separate and prior activity which prepares the site for tourism.

- That if conservation planning is successful, then acceptable, dignified and profitable tourism will follow.

Individual tourism plans will need to be prepared for each of the Lighthouse sites if the cultural tourism opportunities are to be developed and exploited without adversely affecting the heritage qualities and characteristics of the places.

It is important for example to assume that the long term visitor numbers contained in the most optimistic plan will eventually come to the site. Planning for the visitor must take the long term view and then plan for the short term activity level. Too many mistakes have been made when short term decisions are made to attract visitors that are hard to reverse when the large numbers begin to arrive. The case of the bus and car access right into the Cape Byron Lighthouse precinct is a good example. The numbers of vehicles entering the precinct between the cottages in the early days was apparently acceptable. Now numbers are such that the ambience of the place and the visitor experience are severely degraded.

Within the overall context of cultural tourism at the lighthouse sites the Aboriginal community should play an integral part in the planning process. It is desirable that tourism ventures as may be proposed do not preclude or obstruct any Aboriginal community based initiatives. The planning process should also aim for an outcome which pro-actively supports and promotes projects centred on local Aboriginal culture and facilitates the empowerment of the Aboriginal community as the primary tourism experience provider.

12.14 Tourism Infrastructure

Traditionally the lighthouse keepers and their families welcomed visitors and enjoyed their company as a relief to the isolated lifestyle. Visitor services were thus provided from within the domestic facilities or the visitor self catered for those in the tour party.

With the closure and automatation of the stations, this option no longer exists. NPWS must make arrangements to improve the visitor’s enjoyment of the place as well as their appreciation of the scenic and cultural characteristics. Such arrangements also need to be made in response to the remote locations, limitations of access, low level of funding for both capital works and on-site staffing and uncertain levels and fluctuations in visitor numbers. The response to each lighthouse complex will necessarily be different.

Tourism infrastructure development must be related to the realistic opportunities available and be progressively improved in response to increasing visitor numbers. It is important not to place a heavy capital works burden on sites until the visitor numbers are achieved. Equally it is important not to discourage visitors by poor presentation, facilities, staffing or interpretation.

At present it is a reasonable statement that only Cape Byron and Montague Island approach a good level of tourism infrastructure, while Smoky Cape, Green Cape and perhaps Sugarloaf Point are being developed in that direction.

12.15 Revenue Generation From Tourism

The usual sources of revenue generation at
tourism facilities at tourism sites are entry charges and spending by the visitor. Typically therefore the primary way to increase revenue is to either increase the number of visitors coming through the gate or increase the spending per visitor once they are there. The cycle continues with the assumption that in order to increase spending per visitor it is necessary to have them stay on the site for longer. If they are to stay longer, there must be something for them to do which they take away as a memorable or pleasant experience.

In the case of most of the NPWS Lighthouses this well developed formula is not applicable, at least not in the medium term. At South Solitary, where access is effectively impossible, Cape Bailey, which has no additional buildings and to a lesser degree Montague Island, where numbers are limited by weather conditions, the formula for on-site revenue generation or collection is not applicable. Current levels of visitation at the other Lighthouses, with the exception of Cape Byron, are relatively low and probably below the level that would support on-site staff to collect revenue and sell souvenirs or food and beverage. Barrenjoey Headland is a popular destination, but the current arrangements do not include any regular NPWS visitor management presence or visitor facilities on site.

The length of time which most visitors spend on the Lighthouse sites is probably about half an hour, although this figure is based more on personal observation during the inspections than on any available research. The primary attraction is the Vantage Point represented by the elevated location and the spectacular coastal topography, culminating in the symbolism of the Lighthouse tower. Unless there is whale watching, bird watching, a cafe, shop or interpretation material to absorb, the average visitor will not stay for very long.

The second major factor with on-site visitor spending is that the level of visitors to any particular site which would generate excellent levels of income may well be too many to sustain the qualities of the places as isolated dots on the coastal landscape.

In the case of the Lighthouses it will therefore be necessary to consider the totality of revenue generating potential of both the on-site expenditure and off-site income from areas such as merchandise sales, licence fees, filming rights and sponsorship or advertising. Off-site revenue generation requires co-ordinated and high quality promotional management.

ON SITE REVENUE GENERATION
Appropriate on-site revenue generation opportunities, some of which may be shared with the providers, that are place specific to the NPWS lighthouses include:

- Packaged access charges to those sites where there is no ready vehicle or pedestrian access. Montague Island is a good example.
- Visitor parking and tour bus access fees.
- On-site guided tours, including managed access to the tower viewing platform.
- Short term holiday accommodation in the keepers cottages or in other traditional structures within the wider precinct. These could range from overnight to weekly packages and be marketed to specific groups or the wider community.
- Retail sales, including souvenirs, information and memorabilia.
- Food and beverage sales, across a range of formats from sandwiches and cold drinks, a cafe to restaurants.

OFF SITE REVENUE GENERATION
Off-site revenue raising opportunities include:

- Licence fees for such activities as hang gliding, social or business functions, product launches, wedding photography and cross beach dive boat launching.
- Lease income from concessions operating within the existing buildings or others constructed within the wider precinct.
- Licence charges for use as photographic or filming locations.
- General promotion of lighthouse specific merchandise at other lighthouse or NPWS sales locations. This refers to merchandise that covers the entire NPWS collective resource, although control needs to be exercised to limit its distribution outlets if maximum recognition is to be achieved.
- Wider marketing and co-ordination of the collective resource to gain a greater influence, level of recognition and positioning of the “product” in the marketplace.
Opportunities also exist for attracting sponsorship support to either individual lighthouses or the collective resource as a whole. Cape Byron achieved a $30,000 sponsorship for the paint from Dulux, when the cottages and tower were to be repainted. Care needs to be exercised with such arrangements and a co-ordinated programme, coupled with local initiatives should be established.

As an example of the opportunities that may be available, packaged tourism opportunities that are being formulated for such remote sites as Gabo Island include such items as:

- Scenic charter flight from nearby regional airport.
- Tour of the lighthouse and precinct, with interpretation.
- Walking tour of the larger setting, including observation of any wildlife and natural features.
- Gourmet meals within the package.
- Overnight or short term accommodation.
- Return scenic flight to regional airport.

The overall package can be incorporated into a total day trip, overnight or weekend package from major cities such as Sydney, Melbourne or Brisbane.

Similar travel and accommodation packaging opportunities are available for many of the NPWS Lighthouses as regional airports can easily bring guests in from the major city markets for short duration visits.

12.16 Promoting The Collective Resource

A central basis for examining the conservation and cultural tourism opportunities for the NPWS Lighthouses has been to regard them as a collective resource. In addition to the management and other activities undertaken by the NPWS Regional and District offices there is an important role for Head Office to take in the long term success of the venture.

Preliminary research has indicated that in the Victorian experience, the only other group of lighthouses in Australia to be taken this far down the re-use and tourism path, there does not appear to be a strong co-ordinating and supporting role being played by Parks Victoria, once the individual lighthouses have been leased. Each of the lighthouses seems to be operating largely on its own.

There is a growing world wide market for tourism to lighthouses, as evidenced by information available on the internet and through focussed interest groups in the US and Europe. These market places represent specific opportunities for well targeted campaigns.

As the market grows in Australia for lighthouse tourism, co-operation across the national resource should be encouraged. There is already potential for the southern NSW sites to work in association with the marketing campaigns of those Victorian lighthouses already operating in this field.

Opportunities therefore exist for the Service to promote and manage the cultural tourism aspects of the collective resource in a co-ordinated manner. Such a management approach extends the common cultural characteristics of the Lighthouses and captures their powerful imagery that links the full length of the NSW coastline.

12.17 Integration With Wider Tourism Promotion

Each of the NPWS Lighthouses is located within a region where tourism is an important factor in the local economy or planning. In some cases such as Cape Byron and Point Stephens, the local tourism is very high with additional peaks in key seasons such as school holidays. Smoky Cape is close to South West Rocks and the tourism attraction of Trial Bay Gaol, South Solitary Island is within the whale watching cruise trips from Coffs Harbour, Sugarloaf Point is adjacent to the increasingly popular Seal rocks holiday village, and Inner South Head is on the edge of Sydney Harbour. Montague Island and Green Cape are both set within tourism areas based at Narooma and Merimbula.

It is a well known formula in tourism planning that visitors will generally be prepared to travel for about half the time they spend on a site. If they will stay for two hours they will typically be prepared to drive for one hour to reach the destination. This formula indicates that many of the visitors who come to the Lighthouses on a casual basis will be staying on holiday in the vicinity or will be drawn from the local population. Other sources will include the bus tourist from further afield and the packaged tour
from major cities, often with flights and transfers included.

As many of the visitors will come from the surrounding tourist centres it is essential for NPWS to work closely with the local and regional tourism promotion groups and the local tourist officers. Other contacts should be maintained with the NSW Tourism Commission and key groups such as bus and cruise boat operators.

Many visitors to a town of region will call on the local Tourist Information Centre, which are often staffed by part time volunteers. These people will be better ambassadors for the Lighthouses if they have a personal experience of the place and its attractions.

NPWS must work closely with the local Tourist Information Centres and their staff, to build a level of knowledge and support with the people who in turn deal most with the casual enquiry. These offices must also have accurate and informative information such as leaflets and booklets.

There is an excellent opportunity at most of the Lighthouses to involve the local community in the conservation, promotion and tourism activities. In many cases there is a high level of interest and support already in the community which can be tapped and enhanced.

Educational days or special Lighthouse days on a regular annual or seasonal basis are excellent ways to maintain local interest and support.

Seasonal fluctuations in the local tourism market are a natural feature of the NSW coastline. Promotional activities should be co-ordinated with these seasonal programmes. Additional out-of-season activities may also be developed at the Lighthouses to boost the otherwise quiet periods for the local tourist operators.

12.18
Bookings And Reservation Or Packaging

NPWS have a unique opportunity to promote the Lighthouses as a collection and to develop a common reservation system, particularly for those Lighthouses which offer accommodation. This should support the local booking service which is an essential feature of any holiday accommodation facility in Australia.

NPWS should consider establishing or contracting out a wide ranging reservation system that can respond to both national and international tourist enquiries. Victoria seem to have left the individual leased lighthouses to their own devices. Enquiries to Tourism Victoria and the Tasmanian Tourism Office were met with the response that there was no co-ordinated marketing and reservation system for the relevant lighthouses. This is a major loss of opportunity.

It is important to also recognise the unique character of the “tourism product” offered by the lighthouses. For instance, the initial marketing of the Cape Byron Keepers’ Cottages was simply as “just another bed in Byron”, achieving no product differentiation from the thousands of other holiday accommodation outlets in the village. Recently this has been realigned to promote the unique aspects of the lighthouse, its cottages and their location as the most easterly location in Australia.
Part D

Conservation Policies For
The Collective Resource
13.0
Primary Conservation Policies For NPWS Lighthouses

Given that the NPWS Lighthouses represent unique cultural resource to NSW and the Nation, the Vision for the collective resource that has been developed through this Conservation Management and Cultural Tourism Plan is set out in the following core conservation management policies.

These overall policies shall apply to each NPWS Lighthouse site and are expanded upon as implementation strategies for each specific complex in the Supplementary Information for each individual lighthouse contained at the rear of this Plan.

13.1
Conservation of Significance

- The entire collection of NPWS Lighthouses shall be conserved and managed as components of a nationally and internationally significant 19th and 20th century system of navigational aids along the NSW coastline.

- NPWS as the custodian of the nine Lighthouses must ensure their care, management and conservation in accordance with the values expressed in the Statement of Cultural Significance for the collective resource and for the individual lighthouse complexes.

- Retention and conservation of the historic fabric, features, artefacts, natural and cultural landscape characteristics, Aboriginal heritage features and archaeological resources, identified as being of primary and contributory significance is essential to the preservation and expression of the cultural significance of the collection.

- Future management and uses of the Lighthouses by NPWS will aim to increase public access to and understanding of the cultural significance of the Lighthouses, both individually and as a collection. Any adaptive re-use of the Lighthouses will be both secondary and complimentary to these values.

13.2
Retain And Manage As A Collective Resource

- All of the ten NPWS Lighthouses shall be retained under the direct management control and responsibility of the NSW National Parks and Wildlife Service.

- The ten NPWS Lighthouses shall be managed as a collective cultural resource, with each individual Lighthouse being conserved and managed in a manner which retains and enhances its individual characteristics of cultural significance while contributing to and supporting the overall significance of the resource.

- Conservation and management programmes for each NPWS Lighthouse shall be developed and staged in a manner which reflects their overall significance and their value as a tourism resource.

- Conservation and management programmes shall also be staged with regard to available funding and with a reasonable and co-ordinated response to the re-use and cultural tourism opportunities identified by this Plan.

- The Service shall develop and implement organisational initiatives which provide a co-ordinated management and information resource to ensure that the conservation management and cultural tourism activities by the responsible NPWS Region or District Office for each individual Lighthouse are undertaken in a consistent manner across the entire collective resource.

- In order to achieve a co-ordinated management framework for the NPWS Lighthouses, the Service shall establish a Lighthouse Reference Committee, which shall meet on an as needs basis. It shall also establish a Marketing and Promotions Unit within the Community Relations Division, with one of its functions being to co-ordinate the marketing of the lighthouses in conjunction with Regional and District Offices.

- NPWS shall consider the implementation of a whole of government approach to the management, conservation and promotion of the collective resource.

- NPWS shall maintain an active liaison process with AMSA and DLWC to ensure
that there is some co-ordination of the conservation and cultural tourism programmes for all of the major historic lighthouses along the NSW coastline.

- While a mix of commercial and non-commercial activities are acceptable at individual Lighthouses, within well defined conservation and re-use guidelines, no Lighthouse site or complex shall be leased or otherwise assigned to other interests, in its entirety.

- NPWS shall consider gaining management control over the Hornby Lighthouse tower and its gazetted within Sydney Harbour National Park, within a framework which keeps operational responsibility of the navigation aid with Sydney Ports Corporation.

13.3 Recognise And Manage The Complex Nature Of Significance

- The Service shall recognise that each Lighthouse complex has a combination of natural and cultural landscape characteristics, Aboriginal associations and sites and components of the built environment, culminating in the Lighthouse tower, which are mutually reinforcing and complementary. Conservation management shall recognise and sustain these complexities and contributions.

- The Service shall gazette each of the Lighthouse properties into the appropriate National Park or Historic Site and continue to manage the natural landscape features of the Lighthouses and their settings in a manner which reinforces the sense of coastal isolation which is an essential feature of their significance.

- The Service shall develop appropriate consultative mechanisms with the relevant local Aboriginal communities to ensure that their views regarding the conservation and cultural tourism management of the individual Lighthouse locations are taken into account.

- The Service shall ensure that there is adequate and consistent long term funding available for the implementation of rigorous and appropriate maintenance regimes at each Lighthouse.

13.4 Make The Significance Accessible To The Public

- One of the primary components of the conservation management of the NPWS Lighthouses shall be to make the significance of individual Lighthouses and of the collective resource physically, intellectually and/or emotively accessible to the general public. These different forms of accessibility shall be managed through interpretation programmes in a manner which evokes and acknowledges the complex and layered nature of their cultural significance.

- The Service shall undertake conservation management of the Lighthouses in the context of compatible re-use and of certain on-going operational maritime safety activities. Compatible re-use shall recognise the low key, evolutionary development of the lighthouse complexes and be regarded as an essential part of protecting the layered significance and making it accessible to the general public.

- Compatible re-use shall be undertaken in the context of adapting the Lighthouse complexes and their cultural landscape settings to new conservation directions. Adaptation shall protect the cultural significance and be undertaken in a low key, evolutionary manner, consistent with the traditional way in which the complexes have evolved over the past century or so.

- Conservation management of the NPWS Lighthouses shall include the development and implementation of the interpretation policies and programmes, recommended elsewhere in this Plan, which reveal the significance of individual Lighthouses and their relationship to the collective resource and the larger history of lighthouses throughout Australia and internationally.

- The Service shall continue to utilise and foster existing or new community support and corporate sponsorship programmes in achieving the conservation of the Lighthouses.

- Conservation and adaption of the NPWS Lighthouse complexes and their cultural landscapes shall take place in the context of well managed and responsible cultural tourism programmes. These programmes shall include consistent and creative
promotional programmes that link and co-ordinate the individual Lighthouses into the overall NPWS collection.

- The Service shall promote equity of access policies at the Lighthouse sites. Alternative forms of intellectual access to certain areas for those with disabilities may be required if the provision of special forms of physical access would degrade the nature or significance of key features such as the lighthouse towers.

- The Service shall implement the overall conservation, adaptive re-use and cultural tourism development programmes for the various Lighthouse complexes within a staged programme over a number of years, in order to maintain an ever increasing cycle of public interest and support. This staging also recognises that several sites, such as Point Stephens and South Solitary, require considerable additional research, extensive capital funding and implementation of recommended future use options.
14.0
NPWS Operational Management Policies

14.1
Heritage Management Obligations

These general policies refer to the actions required of NPWS managers in relation to the requirements generated by various agencies and interest groups who have independently recognised the heritage significance of the Lighthouses.

The Supplementary Information for each Lighthouse outlines the specific references to the particular listings by specific agencies. The responses outlined in this section should therefore be implemented in relation to those site specific listings.

INTERNATIONAL AND COMMONWEALTH AGENCIES

- NPWS should ensure that the long term curatorial management and interpretation of the Lighthouses takes account of their national and international values.

- Although there are no formal international obligations, NPWS shall continue to maintain an awareness of the international trends and developments in the conservation cultural tourism and management of lighthouses around the world.

- NPWS shall continue to liaise with the Australian Heritage Commission about national initiatives with regard to the heritage management of Lighthouses.

- NPWS shall liaise with the Australian Heritage Commission and submit s30 referrals under the Australian Heritage Commission Act, for any work to the listed sites that will involve a Commonwealth agency. Referrals will be required for example, if AMSA are used as subcontractors for maintenance work to the NPWS managed lighthouse towers.

- NPWS shall make s30 referrals for any proposed project activity by AMSA which is likely to impact on the physical fabric or significance of the place to the Australian Heritage Commission for review. For example, any proposals to upgrade navigational technology or erect additional structures on the sites.

- NPWS shall ensure that the conservation and tourism management of the Lighthouses does not threaten any operational maritime safety role which remains at the Lighthouses. An active and on-going liaison shall be established with AMSA in this regard, based on the Heads of Agreement between AMSA and the State of NSW.

- As appropriate NPWS shall facilitate important record keeping and weather monitoring function for the Bureau of Meteorology, either automatically or by NPWS staff or other on-site personnel.

- NPWS shall consider obtaining management control over Point Perpendicular should the Department of Defence relinquish ownership.

OTHER NSW STATE AGENCIES

- NPWS shall respond to the heritage management aims, objectives and procedures of the relevant REP for each Lighthouse site and other requirements under the EP&A Act.

- NPWS shall ensure that all ten Lighthouses are included within the NPWS s170 Register, prepared in accordance with the requirements of the NSW Heritage Act.

- NPWS shall conserve and manage all the Lighthouses on its s170 Register in accordance with the requirements of the NSW Heritage Act, including the additional criteria outlines in the Heritage Amendment Bill 1998.

- NPWS shall promote the listing of all its Lighthouses, with the exception of Cape Baily, on the NSW State Heritage Register.

- NPWS shall seek endorsement from the NSW Heritage Council that the individual Lighthouses can be managed in accordance with this Conservation Management and Cultural Tourism Plan, without further referral to the Heritage Council.

- NPWS shall as required continue to refer any development proposals which fall outside the scope of this document and its policies, to the Heritage Council.

- NPWS shall manage all archaeological material, with the exception of Aboriginal heritage items, in accordance with the
relevant archaeological management provisions of the NSW Heritage Act and Heritage Amendment Bill 1998.

- NPWS shall liaise actively with NSW Waterways regarding the on-going or future management of navigational and safety items at individual Lighthouses.

- NPWS should liaise with DLWC to ensure that there is a similarity of approach as appropriate in the on-going management and conservation of the various historic lighthouses along the NSW coast.

- The Director General of NPWS, as a Board Member of the Solitary Islands Marine Park Authority, shall continue to contribute to the management of the Marine Park in ways which protect and enhance the cultural significance of South Solitary Island.

- If future marine park authorities are established to manage the offshore areas near NPWS Lighthouses, such as those off Cape Byron or Smoky Cape, NPWS shall become actively involved in such authorities and contribute in ways which protect and enhance the cultural significance of the relevant site.

- NPWS shall continue to work closely with Sydney Water in the overall improvement of the environmental issues related to the Cronulla Sewerage Treatment Works, which is adjacent to the land surrounding Cape Baily Lighthouse.

LOCAL GOVERNMENT AUTHORITIES

- In the period before the Lighthouse sites are gazetted NPWS shall refer all proposal for works to the sites to the Local Council for approval, under Part IV of the EP&A Act. All applications should be accompanied by a Heritage Impact Assessment report.

- Once the Lighthouse sites are gazetted into NPWS ownership and management, NPWS shall implement processes of reviewing likely heritage impacts as contained within Service procedures, primarily through Reviews of Environmental Factors (REFs), and under Part V of the EP&A Act.

- NPWS shall continue to include the relevant LGA in the consultation process as any development proposal is being formulated, once the sites are gazetted.

- NPWS shall continue to work closely with Sutherland and the Potter Point Working Group, in developing management guidelines and practices for the larger Kurnell Peninsula.

COMMUNITY AND PROFESSIONAL GROUPS

- NPWS shall maintain a positive liaison with the National Trust of Australia (NSW) as appropriate, in relation to the conservation management of the Lighthouses. Major development proposals shall be submitted to the National Trust for comment.

- NPWS shall continue to take account of the philosophies, methodologies and guidelines contained in the Australia ICOMOS Burra Charter, in all conservation management programmes for the cultural heritage resources, as per the NPWS Field Management Policies.

- NPWS shall continue to involve or consult with appropriate representatives of the local community, including local historical societies, Chambers of Commerce and the like, during the preparation processes of development proposals.

- NPWS shall continue to facilitate the work of the local Volunteer Coastal Patrol at relevant Lighthouses.

- NPWS shall continue, with the cooperation of AMSA, to facilitate the work of scientific and ecological researchers at the Lighthouses, particularly Montague Island and South Solitary Island.

ABORIGINAL COMMUNITIES

- NPWS shall continue to consult with relevant representatives of the local Aboriginal communities in the formulation of conservation management activities at the Lighthouse locations.

NPWS shall implement the detailed policies outlined in Section 15 of this Plan.

TOURISM OPERATORS

- NPWS should continue to maintain close liaison with State, local and regional tourism operators and promotional agencies to regularly identify responsible tourism opportunities to the Lighthouses and their settings.
14.2

NPWS To Retain Management Control

- NPWS shall retain overall control of the ten Lighthouses, continuing their tradition of a co-ordinated management regime.

14.3

Upgrade The Plans Of Management

- NPWS shall complete a $75 amendment to existing Plans of Management for those Lighthouses which are gazetted into existing National Parks.

- NPWS shall review and upgrade as required existing or draft Plans of Management to incorporate findings and recommendations of this Plan.

- NPWS shall incorporate the findings and recommendations of this Plan in all relevant future Plans of Management.

- NPWS shall ensure that the Service policies and practices under the EP&A Act are implemented for all works proposed for the Lighthouses.

14.4

Gazetted As National Parks

- NPWS shall gazette each of the relevant Lighthouse properties that are adjacent to or currently located within the boundaries of existing National Parks, that have been transferred from the Commonwealth, as additional portions of the relevant National Park.

- Portions of Montague Island, particularly those that include the Lighthouse complex, cultural sites and identified cultural landscape features shall be gazetted as an Historic Site.

- NPWS shall give special consideration to the gazetted status of South Solitary Island. Gazetted as an Historic Site Nature may be appropriate in recognition of its cultural features.

14.5

Secure Adequate Funding For Long Term Maintenance Programmes

- NPWS shall enhance current Treasury submissions for recurrent long term Lighthouse Maintenance funding as an additional item within the Historic Heritage Maintenance Programme.

- NPWS shall ensure that adequate, consistent and long term funding is made available for the implementation of continuous, cyclical maintenance for the buildings, structures and landscape features, both natural and cultural, of the Lighthouse complexes and their settings.

14.6

Resolve Revenue Allocation Stream

- NPWS shall consider the recommendations of the Economic Feasibility Study and this Plan with regard to the potential generation and allocation of revenues from cultural activities at the sites and generally from the collective resource.

- NPWS shall resolve the utilisation of Special Purpose Accounts with regard to the allocation of revenue raised by cultural tourism activities at particular Lighthouses.

- There shall be a clear connection between a substantial proportion of the revenue raised across the entire collective resource and its allocation for its on-going conservation management and cultural tourism promotion.

14.7

Staged Overall Development Programmes

- The Service shall implement the overall conservation, adaptive re-use and cultural tourism programmes for the individual Lighthouse complexes on a staged basis, over a number of years. The primary objectives of the staged programme will be to maintain an ever increasing cycle of public interest and support.
14.8  
Formulate Commercial Operator Guidelines

- NPWS shall formulate small guideline packages for individual operators which clearly identify the heritage qualities, the conservation management objectives and the obligations of the operators in this regard. These guidelines will be in addition to any commercial lease or other arrangements.

- NPWS shall make relevant guideline documents available to each person or operator who establishes a commercial or voluntary connection with each site.

- NPWS shall regularly carry out a joint monitoring and awareness programme with each individual or operator to ensure that the guideline package and its recommendations are being referred to and complied with.

14.9  
Maintain On-Site Security

- NPWS shall progressively establish appropriate regimes which ensure the security of the cultural and landscape resources at the Lighthouse sites, as required by the Heads of Agreement.

- As appropriate and as required by the Heads of Agreement, NPWS shall maintain a staff presence on site to achieve the desired level of security. This may include staff living accommodation within the existing buildings, staff office or operational accommodation within existing buildings, or regular patrols by NPWS staff.

- As appropriate NPWS shall establish service contracts with capable and reliable security organisations to provide the required levels of site security.

14.10  
Establish A Co-ordinated Management Framework

- NPWS shall ensure that co-ordinated management framework mechanisms are established to enable the individual District Offices, including the Cape Byron Headland Trust, to formulate specific management and conservation approaches for individual sites with regard to the protection and enhancement of the cultural heritage significance of the collective resource.

- The recommended name for this mechanism is the “NPWS Lighthouse Reference Committee”. It should provide a common source of expertise and experience, drawn from those within and beyond the Service who have particular experience in various aspects of the overall process. Individual Service staff in the Region or District offices can draw down on the common experience to avoid having to learn the lessons again.

- The Committee should not be a formal entity within the NPWS structure, but an advisory function which meets and operates on as needed basis.

- The NPWS Lighthouse Reference Committee should consist of both Service personnel and external parties.

- It should also include external people who can provide relevant contributions, such as representatives from DLWC or Waterways, NSW Heritage Office and AHC.

- The NPWS Lighthouse Reference Committee shall provide a common research resource and linkages to international and national initiatives for other lighthouses. The work of the Committee shall be supported by NPWS personnel, possibly from within the Cultural Heritage Services Division or other sections of Head Office as appropriate. It could report to the Executive Director, Education and Community Programmes.

- Each of the District offices which manages a Lighthouse shall include adequate representation, as appropriate, in the activities of their existing Local Advisory Committees, to review conservation management issues and proposals about the Lighthouses.
arrangements that can be negotiated with each Aboriginal community by the Regional or District offices.

- Facilitate the collation of common reference information in relation to issues of Native Title and the Native Ownership Bill.

- Contribute towards a consistent Service wide approach to the successful resolution of Aboriginal community involvement with land management, site utilisation, tourism initiatives, archaeology and building reuse.

In the area of Landscape Management the Committee will:

- Assist in developing a consistent management and interpretation approach to the interaction of natural and cultural landscape characteristics.

- Provide a consistent “background message” about the isolation of the lighthouses, their location at the “ends of the earth” and the methodologies for ensuring the long term management of the overall landscape settings.

- Provide a common source of reference material regarding the traditional methodologies of the Lighthouse Keepers in the ways that they exploited and managed the landscape.

- Provide common source of support and methodology towards the control and eradication of undesirable species.

In the area of Site Management and Development the Committee will:

- Support the work of the Cultural Heritage Services Division in relation to the on-going conservation and re-use of the Lighthouses.

- Advise on negotiations with AMSA about future technological developments which may impact on current structures and operational requirements. New navigational equipment and methodologies are an inevitable long term feature of the precincts.

- Advise on negotiations with AMSA regarding the potential for managed tourism access to the towers.

- Advise on the development of a consistent approach for negotiations and liaison with the Heritage Office, Local Councils and Community groups, to support the work of the individual Districts.

- Advise on negotiations with NSW Waterways regarding operations of coastal navigational aids and Volunteer Coastal Patrol activities.

- Establish guidelines and advise on negotiations for co-ordinated sponsorship support, licences and filming rights.

- Advise on common aspects of insurance cover.

- Encourage the co-ordinated use of funding reserves or grant applications, within the Service and to other grant agencies.

Provide common reference information on other matters as relevant.

In the area Building Conservation of the Committee will:

- Provide co-ordinated support for research on relevant conservation technology and methodology.

- Reinforce the NPWS credibility of the conservation methodologies and standards as they are applied to the Lighthouses.

In the area of Interpretation the Committee will:

- Encourage co-ordinated interpretation methodologies and frameworks, against which individual Lighthouse Interpretation Plans can be prepared.

- Facilitate co-ordinated research and provision of common themes, based on the common national organisational background of the lighthouse service.

- Encourage the application of greater resources to projects such as oral history research and recording, with ability to apply the gathered information across a number of sites.

In the area of Tourism Promotion and Management the Committee will:

- Co-ordinate and establish policies for the proposed Lighthouse Marketing and Promotions Group.

- Co-ordinate research into international and national trends for tourism at lighthouses and a provide a common forum for discussion of.
issues and opportunities.

14.11
Allocate Adequate Funding for On-Going Research

- NPWS shall allocate sufficient funding for the early commencement of an extensive oral history collection programme, among both Aboriginal community members and Lighthouse Service personnel.

- NPWS shall allocate sufficient funding for the early commencement of a visual imagery capture programme for the entire Lighthouse resource.

- NPWS shall allocate sufficient funding for the early preparation and implementation of site specific Interpretation Plans for at least five of the Lighthouses.

- NPWS shall allocate sufficient long term funding to enable a series of continuing long term research programmes into the historical development and operation of the Lighthouses and the characteristics of their settings, with the objective of progressively gaining an improved understanding of their cultural and natural significance.

14.12
Review Of The Conservation Management And Cultural Tourism Plan

- NPWS shall review the Conservation Management and Cultural Tourism Plan every five years or subsequent to major programmes of upgrading or re-use at individual Lighthouses.

- The objective of the review process is to ensure that they remain relevant to the protection and conservation of the natural and cultural resources in the face of changed circumstances.

- Reviews should take account of any increased understanding of significance that has been developed in the intervening period.

- Reviews of the Conservation Management and Cultural Tourism Plan should be based on the Burra Charter and other guidelines provided by the NSW Heritage Office and the Service.
15.0
Aboriginal Heritage
Conservation And
Management Policies

15.1
Recognition of Significance

- NPWS shall recognise that the very specific relationships which the Aboriginal people have to the land should form a key basis for the management of the Lighthouse headlands and islands.

- NPWS shall recognise that the Aboriginal resources management curtilage or precinct for each Lighthouse may extend beyond the headland or island to include adjacent beaches and wetland areas.

- NPWS shall recognise, in relation to the Lighthouse localities, that some Aboriginal communities are continuing to establish or refine the nature of the cultural significance for the lands to which they have a connection.

15.2
Consultation with Aboriginal Communities

- NPWS shall recognise that the local Aboriginal communities are key stakeholders in the management processes for the NPWS Lighthouses, with regard to their known cultural resources.

- NPWS shall establish more formalised consultation procedures and decision making protocols with the local Aboriginal community groups for issues which may impact on Aboriginal cultural values and resources.

- The more formalised consultation process shall recognise that the Aboriginal communities have varying degrees of association with the lighthouse localities and ascribe different levels of cultural significance to these areas.

- Where Native Title claims are determined NPWS shall work towards joint management as appropriate under the NSW NP&W Amendment (Aboriginal Ownership) Bill 1996. In accordance with the recommendations of the Native Title tribunal, NPWS shall establish a consultative process with relevant NT Claimant Group for each area with a pending or existing claim, specifically to resolve potential conflicts.

- Where there are established or demonstrated affiliations to the area NPWS shall work towards the establishment of a MOU prepared in consultation with the relevant Aboriginal community groups for each area.

- The MOUs shall identify an appropriate structure and set of procedures for managing the Lighthouse localities, including consultation and arbitration procedures, group facilitation, employment and training opportunities among other topics.

- Given that many current MOUs are community involvement focussed the MOUs recommended by this Plan should be focused on cultural heritage management and cultural tourism issues. Heritage conservation should be identified as the main reason for the MOU.

- The MOUs shall form the basis for the relevant joint management aspects of the National Park in which the lighthouses are situated

- The MOUs shall recognise that the processes of consultation and involvement in aspects of the management of the Lighthouse headlands and islands are on-going and fluid.

15.3
Protection of Aboriginal Cultural Resources

- NPWS shall ensure that all planning and development activities for the Lighthouse precincts and wider curtilages take account of the general need for comprehensive Aboriginal archaeological site surveys.

- NPWS shall acknowledge that it is highly likely that future site surveys will identify further evidence of Aboriginal history, including archaeological sites, contact and post contact sites on many of the lighthouse headlands or islands.

- NPWS shall ensure that comprehensive surveys for Aboriginal archaeological sites be undertaken for any specific area of land.
being considered for future development within the recommendations of this Plan. Development in this context shall include landscaping management, weed eradication, bush regeneration and infrastructure such as walking tracks, pathways, drainage systems and carparks.

- NPWS shall develop and implement a longer term programme to comprehensively survey all Lighthouse headlands and islands.

- All surveys recommended by these policies shall be required to provide the Service with conservation and management strategies for the known or identified sites.

- Comprehensive site surveys should include an assessment of the potential of any identified sites to support interpretation, visitor use or guided tour programmes.

- NPWS shall ensure that any management, development or tourism activities take account of and mitigate any likely impact on sensitive Aboriginal sites and areas and the significance of the place to Aboriginal people.

- NPWS shall facilitate an oral history recording program in selected areas as a matter of urgency.

- NPWS shall continue to manage known Aboriginal cultural resources in accordance with the NPWS Act.

15.4 Access by Aboriginal Communities

- NPWS shall ensure that conservation, adaption and tourism activities on the headlands and islands do not adversely affect the reasonable or shared rights of access and use by the local Aboriginal community.

- NPWS shall give consideration to the potential use of particular buildings within the Lighthouse complexes, by the relevant Aboriginal community, if such uses compliment the overall conservation, interpretation and adaption strategies.

15.5 Interpretation and Cultural Tourism

- Interpretation activities undertaken in relation to Aboriginal heritage characteristics shall be co-ordinated within the overall interpretation strategies for each Lighthouse and for the NPWS Lighthouse collection as a whole.

- NPWS shall recognise the skills and culture of the Aboriginal community as resources for interpretation to visitors.

- NPWS shall facilitate access for Aboriginal based and operated tours within overall cultural tourism strategies and programmes.

- NPWS shall recognise that there may be occasions, such as ceremonies or meetings, when access for non Aboriginal people to those particular places should be denied for the duration of the activities.

- NPWS shall facilitate the promotion of the Aboriginal heritage of the area by the Aboriginal community, or as a joint initiative, by assisting the Aboriginal community to provide their own interpretation, develop texts and graphics for signage, develop and promote existing and new tourism based initiatives, including training and employment opportunities.

- NPWS shall facilitate the development or sanctioning/licensing of cultural tourism products by the Aboriginal community and access for Aboriginal based and operated tours by giving consideration to waiving tour licence fees, and/or improving the structure and conditions related to licence agreements.

- NPWS shall facilitate a more pro-active arrangement with Aboriginal groups wishing to establish their own cultural tourism operations at the broader Lighthouse localities, where there are demonstrated affiliations.
16.0
Landscape Conservation Management Policies

These general policies shall be applied as appropriate to the individual Lighthouses and as expanded upon in the Supplementary Information for each site.

16.1
Managing the Coastal Edge
representing the natural landscaped backdrop

- Where NPWS has care and control of the coastal edge zone through the management of an adjoining national park, it shall continue to manage and conserve those features in a manner which reinforces the sense of place, isolated settings, natural backdrops and contrast with the built character and cultural landscapes of the individual Lighthouses.

- NPWS shall continue to manage the adjacent National Parks in accordance with Service policies and guidelines.

- NPWS shall maintain and enhance the ecological integrity and bio-diversity of the surrounding landscape by generally restricting movement to roads or walking tracks. Existing tracks or roadways shall be rationalised as necessary.

- NPWS shall continue to ensure that land uses within those sections of the adjacent National Parks which define the visual backdrops of the Lighthouses are compatible with the important natural character of the settings.

- Using the information contained in this Plan, NPWS shall identify the different natural and cultural landscape management zones as they apply to each broad lighthouse setting and research the nature and specific management issues that apply.

- NPWS shall develop management plans for the different landscape management zones for each broad Lighthouse setting.

- Management plans for the coastal settings shall include the preparation of a physical inventory of the ecological systems and cultural landscapes that make up the backdrops to the Lighthouses. They shall also include as assessment of the condition of the resources, the extent of any remediation works and recommendations for the on-going maintenance of the place, in the short, medium and long terms.

- As part of the management plans for the wider coastal setting, NPWS shall assess the need, future requirements and quality of the relevant roads and walking tracks.

- As part of the management plans for the wider coastal setting, NPWS shall assess the needs and opportunities for developing or upgrading walking tracks to other cultural and natural features in the vicinity of the Lighthouses.

- NPWS shall co-operate with the relevant planning and development agencies to ensure that future coastal development, particularly housing, adjacent to the National Parks does not visually encroach on the larger visual setting of the Lighthouses.

- NPWS is encouraged to take any available opportunity to enlarge the size of the national park within the visual curtilage of the lighthouse.

- NPWS shall continue to manage the wider landscaped settings in a manner which recognises and conserves Aboriginal values as part of the layered natural and cultural significance.

- NPWS should continue to reinforce the general and the specific national park experience as the visitor moves through the Park to the Lighthouse, this being a vital part of the overall journey and visitor experience.

- NPWS shall integrate landscape management plans with the broader interpretation programmes for the natural and cultural significance of the Lighthouses.

- NPWS shall monitor the medium and long term impact of visitor numbers on the ecological, natural and cultural landscape features of the Lighthouse settings. Appropriate responses shall be developed in accordance with information collected by the monitoring processes.

- NPWS shall ensure that bushfire management practices are implemented for the wider curtilage and the more immediate settings of the Lighthouses, particularly with regard to the protection of the cultural landscapes and cultural features of the built environment.
16.2 Managing the Headlands And Islands
representing the immediate setting of the Lighthouses

- NPWS shall manage the existing landscape characteristics of the headland or island settings in a manner which retains the dominant natural and topographical features, while protecting and conserving the cultural landscape features associated with the Lighthouse complexes.

- NPWS shall recognise and reinforce the visual prominence of the lighthouse complexes through the preservation and landscape management of the immediate setting.

- NPWS shall manage the orchards, food production areas and other evidence of cultural planting in the wider locality of the Lighthouses in a manner which reflects and protects their layered cultural values and the dynamic ecological relationships.

- Using the information contained in this overall Plan, NPWS shall identify the different natural and cultural landscape management zones as they apply to each Lighthouse locality and research the nature and specific management issues that apply.

- NPWS shall develop management plans for the different landscape management zones for each Lighthouse locality, including the access route, carparking areas, walking tracks, fences, fire minimisation zones, shipwreck sites, graveyards, historical archaeological sites and aboriginal cultural patterns.

- Management plans for the headland or island settings shall include the preparation of a physical inventory of the ecological systems and cultural landscapes that make up the locality of the Lighthouses. They shall also include as assessment of the condition of the resources, the extent of any remediation works and recommendations for the on-going maintenance of the place, in the short, medium and long terms.

- NPWS shall continue to manage the Lighthouse localities in a manner which recognises and conserves Aboriginal values as part of the layered significance.

- NPWS shall ensure that adequate surveys of potential Aboriginal and historic archaeological sites are undertaken prior to any landscape management or development works which may threaten their integrity.

- NPWS shall monitor the medium and long term impact of visitor numbers on the ecological, natural and cultural landscape features of the Lighthouse localities. Appropriate responses shall be developed in accordance with information collected by the monitoring processes.

- As appropriate, NPWS shall encourage the participation of the local communities in bush regeneration and weed control programmes.

- NPWS shall restrict the upgrading of access or landscape management programmes until there is a full understanding of the archaeological resources in the affected areas.

16.3 Managing the Beacons Of Light
representing the immediate curtilage of the Lighthouse complex

- NPWS shall manage the gardens, yards and lawns or other cultural features in the immediate curtilage of the Lighthouses in a manner which reflects the layered values.

- NPWS shall identify the different landscape management zones as they apply to each Lighthouse curtilage and research the nature and specific management issues that apply.

- NPWS shall develop management plans for the different landscape management zones for each Lighthouse curtilage.

- Management plans for the immediate curtilages shall include the preparation of a physical inventory of the ecological systems and cultural landscape elements. They shall also include as assessment of the condition of the resources, the extent of any remediation works and recommendations for the on-going maintenance of the place, in the short, medium and long terms.

- NPWS shall continue to manage the immediate Lighthouse curtilages in a manner which recognises and conserves Aboriginal values as part of the layered significance.

- NPWS shall monitor the medium and long
term impact of visitor numbers on the ecological, natural and cultural landscape features of the Lighthouse curtilages. Appropriate responses shall be developed in accordance with information collected by the monitoring processes.

- NPWS shall restrict the upgrading of access or landscape management programmes until there is a full understanding of the archaeological resources in the affected areas.
17.0
Built Environment Conservation Management Policies

17.1 Conservation Principles

Appropriate conservation methods and processes that relate to assessed levels of relative significance and intactness within the overall Lighthouse complex as nominated in the Supplementary Information, will be used to guide conservation of the buildings, site fabric, features and artefacts.

Identified fabric, features and associated artefacts of PRIMARY SIGNIFICANCE shall be conserved, through retention and interpretation. The appropriate conservation objectives and processes are maintenance, preservation, and restoration. Limited or minor reconstruction is acceptable if there has been a minor loss of integrity.

Adaption of spaces considered to be of Primary Significance is acceptable if the change of use is compatible to the physical characteristics of the space, can be achieved without loss of significant fabric and does not degrade the overall significance of the building or complex.

Identified fabric, features and associated artefacts of CONTRIBUTORY SIGNIFICANCE shall be conserved, through retention and interpretation. The appropriate conservation objectives and processes are maintenance, preservation, and restoration. Limited or minor reconstruction is acceptable if there has been a minor loss of integrity.

Adaption or alteration work to items or spaces of Contributory Significance is acceptable if the change of use is compatible to the physical characteristics of the space, can be achieved with only minor loss of significant fabric and does not degrade the overall significance of the building or complex.

Identified fabric, features and associated artefacts of LITTLE or NO SIGNIFICANCE shall either be conserved, through retention and interpretation, or recorded prior to adaption or removal.

17.2 Conservation Processes

In order to achieve a consistency in approach and understanding of the meaning of conservation by all those involved, a standardised terminology for conservation principles, processes and related actions should be adopted. This should be in accordance with the Burra Charter issued by Australia ICOMOS which is the accepted national standard for conservation practice in Australia.

Conservation means all the processes of looking after the place so as to retain its cultural significance. It includes maintenance and may, according to circumstance, include restoration, preservation, reconstruction and adaption and will commonly be a combination of more than one of these.

Maintenance means the continuous protective care of the fabric, contents and setting of a place and is distinguished from repair. Repair involves restoration or reconstruction and it should be treated accordingly.

Preservation means maintaining the fabric of a place in its existing state retarding deterioration.

Restoration means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

Reconstruction means returning a place as nearly as possible to a known earlier state and is distinguished by the introduction of new materials (new or old) into the fabric. It does not necessarily mean going back to the earliest stage of construction or even to one date for the entire building. Reconstruction is associated with recapturing the expression of the place at points in its history which are either important or at which the place demonstrated a greater functional clarity or design expression. This is not to be confused with either re-creation or conjunctural reconstruction which are outside the scope of the Burra Charter.

Adaption means modifying a place to suit proposed compatible uses.

Compatible Use means a use which involves no change to the culturally significant fabric, changes which are substantially reversible, or changes which require minimal impact.

Demolition is confined to actions which reveal
structures or relationships of much greater significance than the structure demolished or that will remove intrusions which reduce the significance of the place. At times demolition may be considered if portions of the site can be opened for new construction that will facilitate the successful adaption of the more significant components.

17.3 Identification Of Cultural Resources

- NPWS shall develop an illustrated inventory of all of the cultural and cultural landscape resources at each Lighthouse site. The inventory shall be referenced to the location of each identified item.

- The Heritage Inventory for each Lighthouse shall be prepared in a manner which is consistent across the entire collection.

- The Heritage Inventory shall be co-ordinated with the Service wide Historic Heritage Assets Survey material and shall contribute to the general understanding within the Service of its historic cultural resources.

- The Inventory shall record the current condition of each identified building or site element as a long term information resource for conservation programmes.

- This document, the superceded conservation plans and other research material shall form the basis for the development of the site specific inventories.

17.4 Conservation Of Significant Characteristics

- The individual Lighthouse complexes shall be conserved in a manner which retains and protects their significant characteristics, including those evolutionary changes that have not adversely impacted on the early integrity of the buildings and spaces between them.

- NPWS shall ensure that the cottages, support buildings and elevated gantry at South Solitary Island are stabilised and conserved in a functional and visually pleasing manner, which retains their significant role within the overall collection and their capacity for later upgrading.

- NPWS shall ensure that the remains of the ruined cottages at Point Stephens, and the remnant outbuildings in their rear yards, are stabilised and conserved in a low key manner, to ensure that they can be reconstructed at the appropriate time.

- Minor alterations, such as the repair or replacement of detailing, shall replicate the historic fabric of the building. Larger scale alterations and additions, which should still be kept to a minimum, shall, while being compatible in scale and architectural character, avoid literal imitation which might mislead the observer that they are original fabric, thereby distorting the historical appreciation of the building or the overall complex.

The following significant characteristics of each Lighthouse group require particular care and protection:

- The essential visual and spatial composition of buildings, fences, walls, pathways and other site elements that make up the totality of the Lighthouse complex.

- The external architectural imagery and integrity of the historic Lighthouse Towers, including any attached walls and support buildings.

- The external architectural imagery and integrity of the historic Keepers' cottages, including any attached walled enclosures and outbuildings.

- The external architectural imagery and integrity of any original or early support buildings.

- The external architectural or structural imagery of any additional infrastructure, such as landing jetties and gantries, which contributed to the early construction or subsequent operational history of the Lighthouse.

- The internal architectural and spatial integrity of the Lighthouse Tower, Keepers' cottages and functional support buildings, including early or significant finishes.

- Internal equipment, fittings, fixtures and furniture that relates to the operational phases of the Lighthouse.

- The full range of equipment, fittings and technology related to the navigational light
and other navigational or safety operations.

- Other items within the precinct which relate to the operational phase of the Lighthouse, but which are not directly described above.

- The unified external colour schemes, predominantly utilising white for painted walls of the tower, cottages, support buildings and fences.

17.5 Conservation Of Significant Fabric

- Building fabric of Primary Significance which survives from the initial phase of construction and of Contributory Significance from subsequent phases should be conserved in accordance with the levels of graded significance.

- Any outstanding deterioration of the building fabric not conserved in the recent catch-up works should be expertly assessed and conservation work carried out as recommended by that assessment.

- Materials such as stone or face brickwork which were not originally painted should remain unpainted.

- Materials such as timber and ferrous metals which were originally painted and for which an effective paint system is an integral part of their preservation, shall remain painted.

- Conservation programmes for significant fabric that utilise traditional building materials and technologies that closely match the early prototypes, are preferred over the adoption of modern materials and solutions.

- NPWS shall ensure that considerable care is exercised in the conservation of significant fabric and details, to ensure that they are reasonably resistant to the harsh environmental conditions that are experienced at the Lighthouses.

- Where possible deteriorating architectural features and materials should be repaired rather than replaced. If replacement is necessary, the new work should be based on existing or historical evidence rather than conjecture.

- Retain the use of white as the predominant external colour for painted walls and fences, unless further research indicates that there were more predominant external colour schemes used consistently on the buildings across the entire collective resource.

- Following thorough analysis, NPWS shall consider the installation of damp proof courses or other forms of protection against rising damp, if the integrity of existing masonry walls is threatened.

- Conservation works shall not directly reconstruct faulty building detailing or inadequate earlier repairs, if to do so would cause accelerated deterioration of significant building fabric.

17.6 Retention of Significant Spaces

- Retain the existing internal spatial arrangements of the Lighthouse towers, particularly the dramatic effect of the spiral staircases and the operational mechanisms that extend up the shafts.

- Retain the spatial characteristics of the principle rooms, corridors and verandahs of the Keepers' cottages. Avoid non reversible spatial subdivisions in these rooms.

- In general the removal of any internal walls in the Lighthouse towers is discouraged.

- In general the removal of internal walls in any of the Cottages to create large, combined spaces is discouraged, except where bathrooms and laundries are being upgraded.

- The partial removal of internal walls in support buildings is acceptable if it is part of an approved adaptive re-use or interpretation programme.

- Where adjoining rooms are to be joined, the preference is for a simple door opening to be used, with a profile similar to the other doors in the subject room retain. In all cases retain sufficient evidence of the existing walls, on each side and above the opening, to indicate that the new opening was made by joining two rooms.

- Removal of fire places, fire breasts or chimneys, to achieve the joining of two adjacent rooms is not permitted.

- Spatial subdivision of secondary or service
rooms, such as bathrooms, toilets and laundries is acceptable if the services infrastructure is to be upgraded in support of an approved re-use programme.

17.7
Reinstatement Of Significant Missing Fabric

- Reinstatement of missing fabric or reconstruction shall only occur where there is sufficient documentary or physical evidence, where it will contribute to the overall significance and where it is essential to the survival of the building overall.

- When replacing internal or external joinery, new items shall closely match the existing or typical late 19th century profiles.

- NPWS shall give consideration to the reconstruction of the missing flagpoles at each Lighthouse complex, given their potential to provide a strong visual reference to the traditional character of the precincts.

- NPWS shall undertake the medium term reconstruction of the cottages at Point Stephens, given their unique characteristics and very high cultural significance.

- NPWS shall give consideration to the long term reconstruction of the interiors of the cottages at Barrenjoey, although this may not be the preferred option, given the lengthy nature of the current cycle of use.

17.8
Ordinance Compliance

- Approaches to compliance with The Building Code of Australia (BCA), as the operative ordinance in NSW for the conservation and use of the buildings, should focus on the spirit and intent of the ordinances where strict compliance would adversely affect significance.

- Any future upgrading of the buildings should take into consideration new approaches for the implementation of fire safety standards that do not harm the existing significant fabric.

- The key issues relating to compliance are fire resistance and egress provisions. It is essential that the buildings and their significant fabric are not degraded by inappropriate responses to the BCA.

- NPWS shall revise the earlier BCA analyses commissioned by AMSA, giving full consideration of the conservation provisions of this Plan, when considering making the towers available for public access.

- Alternative compliance strategies shall be developed if these would reduce the likely impact on significance while still achieving the objective of carefully managed public access.

17.9
Conservation Of Moveable Heritage Items

- NPWS shall ensure that remnant artefacts or surviving technology, such as equipment, documentary records, furniture or services installations related to the operational phases be retained and conserved as part of each lighthouse.

- Such artefacts shall be conserved in accordance with the requirements of the Heritage Amendment Bill 1998.

- Retention and conservation of artefacts such also be undertaken in accordance with the site specific Interpretation Plan for each site.

17.10
Recording

- NPWS shall progressively prepare a measured drawing study of each building and structure at the Lighthouse complexes, including any historical structures or site items within their wider historical curtilage.

- NPWS shall periodically undertake a periodic photographic and written recording process of the buildings and other structures in order to build up a long term comparative database for monitoring their condition.

- NPWS shall ensure that the recording work undertaken at any individual Lighthouse is of a consistent standard across the whole resource and meets Heritage Office guidelines.
NPWS Lighthouses
CONSERVATION MANAGEMENT AND CULTURAL TOURISM PLAN

NPWS shall ensure each place is systematically surveyed for Aboriginal sites and areas of archaeological potential.

Prior to, during and after any approved alterations or additions being made, either internally or externally to any building element or structure, a detailed photographic recording shall be made of the existing state.

Should any building, building element or structure be demolished or removed, under approved programmes and prior to any demolition work commences, a detailed photographic recording shall be made of the existing state.

All documentary recording materials shall be stored safely in the District, Regional or Head Office, as appropriate. Relevant copies should be made available to the State Library for archival storage.

17.11 Management Of Documentary Material

Copies of all identified relevant documentary material should be gathered together and stored at the filing library of the District Office which manages each particular Lighthouse.

A copy of the material should also be held in a central location, within the Cultural Heritage Services Division and NPWS Head Office Library.

17.12 Reference To The Original Conservation Plans

District staff and the site managers shall regard all earlier conservation plans as background reference material only. The policy recommendations of those earlier documents has been superseded by this Plan.

NPWS should have regard to the 1997 United States National Parks Service publication, *Historic Lighthouses Preservation Handbook* and consider extending the recently completed NPWS conservation handbook to include references to the conservation of the Lighthouses.

17.13 Conservation Skills And Experience

The Burra Charter encourages the use of skilled and appropriate direction and supervision, from a range of disciplines, for conservation activities. The attitudes, skills and experiences required and creative approaches taken in context of a conservation project are quite different to those applied to the design of new buildings.

Appropriate conservation skills and experience shall be available within the project team assembled to deal with the conservation and use of the building.

Appropriate professional skills and experience assembled to work on the detailed conservation of the buildings could include conservation architects, structural engineers, building code compliance advisers, materials conservation specialists and cost planners as appropriate.

Building contractors, project managers and trades personnel who are experienced with working on historic buildings should be selected to work on the proposed works.

17.14 Essential Maintenance Programmes

NPWS shall implement a rigorous, appropriate and long term maintenance programme at each site, once the initial catch-up works have been completed.

The primary objectives of the maintenance regime should retain the existing condition of the building fabric, retard deterioration in the face of the harsh maritime environment and avoid the need for extensive capital repairs in the long term.

Maintenance should be undertaken on a planned rotational or cyclical basis, with each item on a cyclical timetable according to its potential rate of deterioration.

Current maintenance activities should be continued until they are replaced by full and comprehensive programmes.

Maintenance activities should generally replace like with like or ensure that the item is cleaned and maintained in its original condition.
• It is essential that maintenance work does not involve a slow process of degradation or irreversible change or replacement with non matching materials.

• Maintenance inspections and activities should be the responsibility of the relevant NPWS District Office.

• Inspection and maintenance should only be conducted by those with professional knowledge and experience of buildings and materials.

• Cyclical maintenance inspections shall also monitor the impact on significant fabric of general building conservation programmes and cultural tourism activities.

The following items will require cyclical inspection and maintenance or repair.

Every year

• Roofing, gutters and downpipes
• Stormwater disposal systems around the buildings and site generally
• Window glazing
• Door and window hardware
• Locks and security systems
• Communication systems
• Services installations, particularly, lighting,
• Electrical and fire fighting
• Fences and gates
• External metalwork, fixings and fittings
• Internal metalwork, fixtures and fittings
• Built in furniture and fittings
• Security and safety signage
• Vegetation that may cause deterioration of the building fabric

Every three years

• External timber detailing and joinery
• Water supply infrastructure including underground tanks
• Plumbing systems, particularly waste disposal systems
• Paths and driveways
• Pest control
• Potential for rising damp

Every five years

• External painting systems
18.0 Historical Archaeology Conservation Management Policies

18.1 Compliance with NSW Heritage Act

- Any potential historical archaeological resources on the site should be conserved in accordance of the requirements of the NSW Heritage Act, including the Heritage Amendment Bill 1998 and their potential for interpretation considered.

- The potential for underground archaeological deposits within the Beacons of Light zones and related to those areas used for initial lighthouse construction, is considered to be high. NPWS shall prepare Archaeological Zoning Plans for each of the Lighthouse sites as a prelude to any development works, particularly the installation of underground infrastructure. The archaeological zoning plans shall identify both Aboriginal and historical sites which may be of significance.

- Archaeological zoning plans shall be prepared by suitably qualified personnel.

- Prior to any future works below floor level in any building or in other areas identified within the Lighthouse complexes to be of archaeological sensitivity, there should be an archaeological assessment undertaken in accordance with the relevant provisions of the NSW Heritage Act.

- Any identified archaeological resources must be conserved and managed in accordance with the recommendations arising from the archaeological assessment.

- Any evidence of previous historical occupation at any of the Lighthouses, such as grave sites, building and structural remains, or artefacts not previously identified or noted in this or earlier conservation research documents, which may be discovered in the future, must be immediately reported to the District Office and the NPWS Cultural Heritage Services Division. The remains are to be left undisturbed until professional conservation is arranged and received.

- The NPWS Historical Archaeologist shall be contacted regarding any excavation proposals. This officer has delegated authority to administer excavation permits for minor works for the Service. Major works shall be referred, as appropriate, to the NSW Heritage Office for approval.

- Works plans should include provision for a temporary stoppage of excavation works in the event of archaeological discoveries and the responsible supervisor shall notify NPWS Historical Archaeologist and take advice about procedure.

- Where possible, new underground services shall be installed in existing service trenches or grouped into combined trenches to avoid unnecessary excavation within the Lighthouse precincts.

- Evidence of quarrying activities, particularly where they relate to the construction of the Lighthouses should not to be further worked without detailed consultation and approval from the NPWS Historical Archaeologist.

- In general archaeological sites should only be used for interpretive purposes, but in certain circumstances reconstruction for ongoing use may be appropriate.

- Associated shipwreck sites shall be managed under the maritime archaeology provisions of the NSW Heritage Act.

The following management actions are considered appropriate in relation to areas identified within the individual site Archaeological Zoning Plans as being of varying archaeological sensitivity. They should be included as standardised management recommendations in future zoning plans.

Unit I
Areas with high potential to contain significant undisturbed archaeological deposits:

Proposals for disturbance require consultation with NPWS Historical Archaeologist. Generally no excavation or disturbance of sub-surface spaces prior to completion of an Archaeological Research Plan.

Unit II
Areas with some potential to contain archaeological deposits:

Proposals for disturbance require consultation with NPWS Historical Archaeologist and preparation of an archaeological assessment. Any excavation or disturbance of sub-surface...
spaces to be monitored by a suitably qualified archaeologist.

Unit III
Areas where archaeological deposits have been disturbed:

Generally no restrictions on excavation in these areas. However if deeper excavation than previously carried out (into undisturbed deposits) is proposed, then the NPWS Historical Archaeologist should be notified and written approval is required prior to works commencing.

Unit IV
Areas with low potential to retain archaeological deposits:

No restriction on excavation in these areas. However, if relics are uncovered then work should cease and the NPWS Historical Archaeologist should immediately be notified.
19.0 Conservation Policies For Managing The Character Of The Lighthouse Precincts

19.1 Retention of Significance

- NPWS shall not subdivide or dispose of any of the Lighthouse property holdings transferred from the Commonwealth.

- NPWS shall carefully manage the long term impacts of the changing navigational or infrastructure technologies on the overall significance of the cultural and natural resources.

- NPWS shall liaise with AMSA, in accordance with the Heads of Agreement, to ensure that installation of future navigation or power source technologies minimises any adverse effects on the significance or visual ambience of the complexes.

19.2 Site Development Guidelines

- In general NPWS shall adopt a policy of erecting no new free standing buildings or major structures within the Lighthouse precincts or immediate visual curtilages, in order to protect the surviving late 19th century and low key evolutionary nature of the building complexes and their settings. Except for those required for navigational purposes which should be carefully considered in a sympathetic manner to protect the qualities of the place mentioned above.

- NPWS shall restrict the erection of any new buildings in the adjacent national parks which would impair the visual isolation of the Lighthouses. Any new buildings or structures shall be discretely located or well designed to blend into the landscape. Except for those required for navigational purposes which should be carefully considered in a sympathetic manner to protect the qualities of the place mentioned above.

- NPWS shall restrict the introduction of any new buildings into the Lighthouse precincts to the provision of small support structures within approved programmes of re-use and where the additional accommodation they will provide cannot be adapted from within existing buildings. The new public toilet block at Cape Byron is an example.

- The design and siting of any approved new support buildings shall be carefully considered to minimise any impact on the visual setting and character of the complexes, the buildings and their settings.

- The design and siting of any new support buildings shall avoid disturbance of any known archaeological material or existing structures.

- Reconstruction of former buildings is acceptable within approved programmes of re-use and where there is sufficient evidence for their reconstruction.

- Within strict limits, it is acceptable to erect replacement buildings on the sites of known former buildings of low significance, such as the ruined generator shed at Point Stephens. Replacement buildings should reflect the scale and general architectural nature of the earlier building but not necessarily be a replica.

- NPWS shall consider the reconstruction of old fence lines to interpret the various cultural landscape zones that supported the occupation of the Lighthouse.

- NPWS shall avoid or minimise the introduction of new paving areas, driveways or pathways other than those installed within defined and approved re-use and tourism programmes.

- Any new paving areas, driveways or pathways shall be carefully sited to avoid adverse impact on the cultural landscapes of the sites, the architectural qualities of the complexes or known archaeological sites.

- NPWS shall repair, reconstruct and retain existing fencing and pathways. Any new fencing shall replicate the dominant styles and materials of the particular context.

- NPWS shall carefully control the selection, design and installation of plaques, memorials and markers. Any such material shall be co-ordinated with overall site interpretation plans.

- Provision of new or extended infrastructure services to the Lighthouse precinct or
elsewhere in the wider curtilage, must be undertaken with minimal physical impact on the environs and visual character of the locality. Where possible, such infrastructure should utilise existing areas, trenches or conduits which have already been disturbed by earlier development or infrastructure.

- NPWS shall restrict the construction of any small new buildings, upgrading of access or landscape management programmes until there is a full understanding of the archaeological resources in the affected areas of the overall precinct.

19.3 Access Issues

- NPWS shall give considerable care and creativity to the provision of equitable and reasonable disabled access in a manner which minimises undue impact on the significant features of the sites and buildings. Alternative forms of making certain places, such as the Lighthouse towers accessible, including the use of alternative media, may need to be considered.

- NPWS shall maintain the restrictions on helicopter access to South Solitary and Montague Islands where this would have an adverse impact on the bird populations.

- NPWS shall facilitate on-going maintenance or operational access to AMSA, NSW Waterways or other State Government agencies as required under the Heads of Agreement or other arrangements.

- NPWS shall facilitate on-going access for Volunteer Coastal Patrol, Bureau of Meteorology and scientific research personnel in accordance with agreed arrangements.

19.4 Infrastructure Development

- NPWS shall ensure the appropriateness and adequacy of roads and infrastructure to meet approved programmes of conservation, reuse and development.

- In general NPWS shall avoid the excessive upgrading of access roadways through the adjoining National Parks.

- NPWS shall carefully consider the design and installation of any new infrastructure that may be required to traverse the adjoining National Parks in order to minimise any impacts on natural or cultural characteristics.

- NPWS shall develop a formal waste management system or programme for each Lighthouse complex, as part of any change of use to tourism based or other activities

- NPWS shall monitor the quality of the water in the underground tanks to ensure its adequacy for use. Water quality in the tanks shall be upgraded as required.

- NPWS shall monitor the adequacy of the existing toilet systems on the sites during any change of use or increased visitor use. As required environmentally appropriate toilet systems shall be installed and carefully monitored.

- NPWS shall ensure that any services upgrading at the Lighthouses takes considerable note of the need to protect the sensitive surrounding environment or nature reserve.

- NPWS shall ensure that any services or infrastructure upgrading at the Lighthouses are carefully considered and designed to minimise any adverse impacts on the heritage characteristics or significant fabric of the precincts and buildings.

- NPWS shall ensure that the provision or upgrading of any security infrastructure at the Lighthouses is carefully considered and designed to minimise any adverse impacts on the heritage characteristics or significant fabric of the precincts and buildings.

- NPWS shall carefully consider the potential impacts arising from the necessary reconstruction or progressive adaption for on-going use of special sites such as helicopter or boat landing places, jetties, cranes etc.

- Subject to negotiations with AMSA, NPWS shall ensure that any proposals for upgrading of AMSA facilities, including navigational aids, towers, communication facilities, power sources and helipads, are carefully considered and designed to minimise any adverse impacts on the heritage characteristics or significant fabric of the precincts. Section 30 approvals shall also be sought from the Australian Heritage Commission in this regard.
20.0 Conservation Policies For Adapting To The Future

20.1 Adaption Guidelines Generally

- NPWS shall ensure that any new uses selected for the existing buildings shall adopt the principle of "loose fit", where the new use is adjusted as necessary to work within the available spatial and architectural configurations of the buildings.

- Adaption of a building's interior shall ensure that the original fabric or significant architectural and spatial features are retained to the greatest extent possible.

- The design of any approved internal alterations and additions should be minimal in extent and compatible with the scale, integrity and character of the individual building.

- In general external additions to existing buildings are discouraged.

- If required in order to meet approved interpretation, re-use or cultural tourism programme requirements, any new additions or alterations shall be of a minor nature, subservient to the primary, or evolved, architectural features and composition of the existing building and located in areas which are relatively removed from the main circulation or public spaces within the complex.

- Alterations and additions shall be completed in such a manner that if they were to be removed in the future, the essential form and integrity of the earlier structure would be unimpaired or easily retrieved.

- NPWS shall consider alternative approaches to the resolution of functional, safety, BCA or health requirements to minimise any adverse impacts upon significant fabric or features.

- Redundant but significant equipment is to be retained on site, preferably in its existing location, or in a new location as determined by the site specific interpretation plan.

- The introduction of new services and associated fittings as part of approved re-use programmes, shall be carried out with the minimum of disruption to the building's fabric and appreciation.

- Newly installed or upgraded external plant, equipment and services shall not unnecessarily disrupt the general architectural characteristics of the building. Window mounted air-conditioners are not permitted.

- Services shall be concealed wherever possible. Existing or old service chases or conduits should be re-used in preference to new chases. Services should be rationalised, grouped and treated to minimise intrusion.

20.2 Choice of Preferred Uses

LIGHTHOUSE COMPLEXES

The preferred uses are those which are more widely based and which provide a reasonable equity of access for the general public. These include:

- Walking, whale watching, passive recreation and enjoyment of the views, topography and natural attractions.

- Activities and uses associated with interpretation programmes.

- Short term holiday and B&B accommodation.

- General tourism support uses such as interpretation, retail, food services and toilets.

- Licenced programmes of Aboriginal based cultural tourism.

- Pre-arranged social events which do not adversely affect the general ambience of the precinct.

- Scientific research.

- NPWS caretaker or site office accommodation.

Uses which exclude the general public from the precinct for extended periods, such as exclusive conference venues or resort style accommodation, are not preferred.
- NPWS shall give special long term attention to the case of South Solitary Island, where the difficulties of access and the cost of conservation works may generate a need for a more exclusive use of the cottages.

**LIGHTHOUSE TOWERS**

The preferred uses are those which retain the importance of the tower and protect its architectural, spatial and technological characteristics. These include, subject to negotiations with AMSA:

- Any on-going operational navigational and safety role for the lighthouse tower, which must have precedence over all other uses.

- Any on-going navigational use for the rooms at the base of the tower by groups such as the Volunteer Coastal Patrol.

- Supervised access into the tower and upper platform by small groups of visitors.

- Accommodation at the base of the tower for interpretative displays.

**HEAD KEEPERS COTTAGES**

The preferred uses shall be a combination of visitor oriented services such as interpretation, retail, food services, amenities, meeting rooms, and site management office as developed within approved re-use programmes.

The option remains to utilise part of the cottage for Bed & Breakfast style accommodation, if this can be accommodated without undue impact on the other activities.

Use for resident caretaker accommodation, in preference to those greater opportunities outlined above can only be justified in the short to medium term if required for site security and initial operational activities.

**ASSISTANT KEEPERS' COTTAGES**

The preferred uses for these semi detached cottages is for short term visitor or holiday accommodation.

Other uses could include:

- Interpretative displays.

- Short term accommodation for scientific research personnel on such sites as Montague and South Solitary Islands.

- Caretaker accommodation.

- NPWS site office.

**SUPPORT BUILDINGS**

The preferred uses for the small support buildings will vary on each location and in accordance with opportunities available in the main buildings. Differing stakeholder interest or site specific requirements shall be taken into account, as shall the actual location of the specific building within each complex.

Preferred uses include:

- Interpretation of the general site or the role of the particular building.

- Retail operations.

- Food service operations.

- Associated cultural tourism activities.

- Storage.

- Meteorological or other scientific research activities.

- Garaging for staff or visitors cars.
21.0
Policies For Interpreting Significance

21.1
Core Interpretation Principles

- Interpretation programmes shall plan and provide equitable physical, intellectual, emotional and/or spiritual access to the complex and multi-layered cultural and ecological significance of the Lighthouses.

- Interpretation programmes shall, through the use of appropriate technologies and the responsible stimulation of ideas and opinions, encourage the protection, conservation and appreciation of the significance of the Lighthouses for present and future generations.

- Interpretation programmes shall serve all visitors, potential visitors and the public at large.

- Interpretation programmes will provide public awareness, understanding and appreciation of the Service's values, objectives and practices in conserving and managing the Lighthouses and their overall cultural and natural resources.

- NPWS shall identify and define interpretation planning requirements, recruit, train and supervise staff, select, brief and supervise consultants and contractors in the preparation and implementation of interpretation plans and programmes.

- NPWS shall ensure that appropriate organisational structures are in place to enable a co-ordinated interpretation programme across the entire collective Lighthouse resource. The recommended mechanism is through a Lighthouse Reference Committee.

- NPWS shall ensure the preparation and implementation of site specific Interpretation Plans for each individual Lighthouse, within the framework of the overall Interpretation Plan developed as part of this Plan.

- Individual Lighthouse interpretation plans shall not be constrained by the boundaries of the immediate precincts, but shall take into account the wider contexts identified in the Conservation Management and Cultural Plan.

- Interpretation programmes shall reach out to the public at large through on-site programmes, individual and collective marketing strategies and NPWS corporate communications.

- All interpretation shall be based on the most accurate and insightful information and historiography available and their faithful representation in all media and personal programmes. This basis shall be clearly documented in the individual Lighthouse Interpretation Plans.

21.2
Interpretation Policies

- The primary emphasis for interpretation of the Lighthouses generally shall be their evolutionary contribution to the collective NPWS Lighthouse resource and to the wider historical development of lighthouses in Australia and internationally.

- The primary emphasis for interpretation of an individual Lighthouse complex or building shall be the evolution of the place during its operational phase. However the significance to Aboriginal people and the wider ecological significance shall be incorporated in any interpretation plan.

- Planned and future developments for the Lighthouse collection and for individual complexes shall be incorporated in the interpretation plans and programmes.

- Interpretation of lighthouses shall address all the elements contained in the assessments of significance for the collection as a whole and for individual elements or features, according to their relative significance.

- Interpretation of the lighthouses shall be undertaken in accordance with the themes developed in the Interpretation Plan and as further developed with additional research.

- Emphasis is to be given in interpretation programmes of the linkages between the history of the collection and that of each Lighthouse, the physical evidence and the social issues of each place.

- Interpretation programmes shall include the cultural and natural landscape settings of the
Lighthouses and the influences of the settings on their nature and historical development.

21.3 Interpretation Practices

- NPWS shall employ, conceive and develop interpretation techniques which define best practice in heritage presentation.

- NPWS shall secure appropriate technical advice on major issues regarding interpretation.

- The interpretive potential of a building, structure or building element shall be a criterion in determining its conservation and use.

- Interpretation of the cultural significance of a structure, feature or artefact shall have high priority within any conservation and re-use programme and shall be undertaken irrespective of the final use.

- Removal of intrusive elements shall be sanctioned by the Interpretation Plan prepared for the particular Lighthouse complex.

21.4 Programmes To Support Interpretation

- NPWS shall implement or co-ordinate wide ranging oral history programmes with the people who staffed, lived at or were associated with the operational history of the Lighthouses.

- NPWS shall implement or co-ordinate wide ranging oral history programmes to collect information about the Aboriginal interaction with the lighthouses.

- Oral history collection programmes shall include capturing of visual evidence of the participants, through a variety of media.

- NPWS shall implement or co-ordinate a programme of visual image capture of the Lighthouses and their settings.

- NPWS shall implement or co-ordinate a programme of identifying and gathering specific documentary information on the Lighthouses for the development of site specific interpretation plans.

21.5 Review of the Interpretation Plans

- The NPWS Lighthouses Interpretation Plan and the individual Lighthouse Interpretation Plans shall be reviewed every five years, following the periodic reviews of the Statement of Significance and the overall Conservation Management and Cultural Tourism Plan.

- Reviews of the interpretation plans shall take account of any updating of the Conservation Management and Cultural Tourism Plan and shall reflect evolving theory, new evidence and new interpretation techniques.

- Interpretation programmes and practices shall be subject to on-going evaluation and annual review to ensure that they fulfil the objectives of their Interpretation Plans as effectively as possible.
22.0
Cultural Tourism Policies

22.1
Limits of Acceptable Change

- NPWS shall make the cultural significance of the Lighthouse sites accessible to the general public by means of physical, intellectual or emotive means, as appropriate. The development of cultural tourism programmes at the Lighthouses shall be in the context of achieving sustainable cultural heritage conservation.

- NPWS shall acknowledge that there are essential linkages and potential conflicts between the protection or conservation of the heritage resources and visitor experiences and the development of recreational and educational opportunities for visitors.

- Protection and conservation of the heritage resources, overall ambience of the Lighthouses and the potential visitor experience shall be the primary criteria when establishing limits of acceptable change, in relation to cultural tourism potential.

- Reasonable levels of well managed tourism programmes and tourism infrastructure shall be made available at each of the Lighthouse sites, in accordance with their physical accessibility and individual capacity to accept change.

- NPWS shall establish the limits of acceptable change for each overall headland or island precinct and Lighthouse complex that may generate restrictions on the maximum number of visitors that should be on the site at any one time.

- Ensure that all tourism planning and development activities take a long term view about the eventual levels of popularity and visitor numbers. Avoid short term solutions which are formulated to generate visitor numbers which cannot be controlled if and when high numbers are actually achieved.

- Ensure that adequate and appropriate on-site supervision and visitor management programmes are available to enhance the visitor experience through guided tours and interpretation.

- Day visitor vehicles, including buses, should be excluded from parking in the immediate Lighthouse precinct to avoid severely degrading the atmosphere and visitor appreciation of the place.

22.2
Management of Visitor Expectations

- Ensure that any promotional material about the Lighthouses accurately and adequately identifies the heritage significance, nature and physical limitations of the place.

- Ensure that the interpretive content of all promotional materials is in keeping with the messages established by the Collective Interpretation Plan.

- Ensure that promotional programmes engender realistic expectations in the mind of the visitor prior to the visit.

- Ensure that the visitor experience during the journey through the adjacent national park compliments and enhances the overall visit to the Lighthouse.

- Ensure that the initial encounters with the Lighthouse precinct, by way of signage, entry gates or other "barriers", enhance the overall experience.

- Ensure that the quality of the visitor experience on site matches the general level of expectation engendered by the promotional material.

- NPWS should make every attempt to achieve managed and carefully supervised access to as many of the towers as possible, given that this is a key expectation or wish of most visitors. The conditions outlined in the Heads of Agreement shall be taken into account in this context.

22.3
Preparation of Site Tourism Plans

- NPWS District Offices shall develop site specific tourism plans for the Lighthouse under their management jurisdiction.

- The individual tourism plans shall be prepared in a consistent and co-ordinated manner across the entire NPWS Lighthouse collective resource.
Individual site tourism plans shall include the following aspects:

- Clarify the extent of the management focus and the larger curtilage that will influence the tourism management of the place.

- Identify and schedule the cultural and natural values and characteristics of the place, including those special attributes that are attractive or of interest to the visitor.

- Establish how these values and attractions will be protected. What conservation and development programmes need to be undertaken.

- Establish the site specific limitations to general tourism development and the re-use of buildings and the precinct generally from the overall policies of the Conservation Management and Cultural Tourism Plan.

- Determine the range of visitors most likely to visit the site, including reference to earlier site or regional tourism studies.

- Support the presentation of the values and attractions of the place to the visitor by reference to the site specific interpretation plan.

- Determine the levels of acceptable change for the site and therefore how many people should be on the site at any one time or through the course of the day, month or year, without unduly degrading the integrity of the place or the quality of the visitor experience.

- Determine the most suitable range of short, medium and long term visitor attractions that should be developed for the specific site, including the compatible re-use of all buildings for either interpretation or tourism activities, including appropriate visitor facilities, retail opportunities and supporting infrastructure.

- Ensure that there are adequate visitor facilities available within the precinct and that these facilities are provided in a manner which protects the significant features of the place.

- Carefully consider the aspects of the place which make the first impressions. Ensure that they enhance the visitor experience.

- Identify how the visitors will gain access to the site and assess all aspects of the access corridors or methods to manage their expectations as they approach the site.

- Determine how the visitor will move around the precinct and the wider curtilage, including linkages with nearby natural and cultural attractions.

- Develop policies and action plans for such items as security, evacuation, response to medical emergency, cleanliness, infrastructure and general health and safety, without degrading the qualities of the place.

- Develop a community relations plan which can involve the local population in a regular series of activities or events that will raise the profile of the Lighthouse and promote its role in the economic life and tourism potential of their town or village.

- Ensure that a programme is established to involve the local community in the medium and long term development of the site.

- Take account of interpretive and promotional requirements in the design and installation of all forms of signage and communications.

- Ensure that Bus and Car parking areas are located and designed to avoid crowding the foreground or the immediate precinct. Consider alternative forms of transport from parking areas which can then be established at some distance from the site.

- Ensure that there are good interpretation programmes in place, in accordance with the site specific Interpretation Plan.

- Ensure that there are processes in place to keep the site and its setting clean and well maintained.

- Ensure that there are adequate levels of well trained staff or representatives on site, particularly during periods of high visitation, to greet the visitors and present a good and friendly impression of NPWS care and management.

- Develop budgets and business plans for managing the precincts as tourism facilities and for conservation programmes.
22.4 Monitor Tourism Programmes

- Implement a programme of collection of visitor records to establish a understanding of the size and fluctuating nature of current and longer term visitation patterns.

- Monitor the ways that visitors respond to the site, its attractions and facilities. Adjust programmes and activities accordingly.

22.5 Provision of Tourism Infrastructure

Select from the following elements of tourism infrastructure for the individual sites, giving due consideration to the likely impacts on significant characteristics:

- Good marketing information that establishes realistic expectations beforehand, while encouraging the visitor to make the journey.

- Good signage and access arrangements, including carparking if appropriate, clearly defined opening times and charges for various components.

- Safe and equitable access to the majority of the precinct, with signage or other arrangements to warn of danger and provide an understanding for those who cannot access certain sections.

- Fresh drinking water and clean toilets.

- A clean and well managed appearance across the entire precinct, including well maintained buildings and no rubbish or litter.

- Seating and rest areas, with reasonable weather protection, particularly where the coastal and sea views can be admired.

- A reasonable level of food services, possibly ranging from snacks and cool drinks to cafe style operations at times of high activity.

- Retail outlets for souvenirs and memorabilia.

- Appropriate interpretation material, across a range of media and targeted to a variety of levels of interest.

- Guided tours at certain occasions, particularly up the tower, which is the peak visitor expectation.

- Accommodation facilities that provide a good quality presentation at the selected level of visitor expectation. A reasonable level of privacy within the fence line that surrounds the relevant cottage.

22.6 Local Community Promotion

- NPWS shall work closely with the local and regional tourism promotion groups and the local tourist officers. Other contacts should be maintained with the NSW Tourism Commission and key groups such as bus and cruise boat operators.

- Ensure that close contact is maintained with the staff of the local Tourist Information Centre, including their part time volunteers, to build a level of knowledge and support with the people who in turn deal most with casual enquiries from visitors to the region.

- Involve the local community in the conservation, landscape management, promotion and tourism activities at the Lighthouse sites, to tap and enhance existing levels of interest and support.

- Progressively develop educational days or special Lighthouse days on a regular annual or seasonal basis as excellent ways to maintain local interest and support.

- Co-ordinate promotional activities with local or seasonal tourism programmes.

- Develop out-of season activities at the Lighthouses to boost the otherwise quiet periods for the local tourism operators.

22.7 Promotion of the Collective Lighthouse Imagery

- NPWS shall acknowledge that one of the most important and valuable aspects of the Lighthouses is their collective symbolic power and popularity, and that this is also their main economic value.

- NPWS shall acknowledge that this economic value should be concentrated and marketed, in order to supplement revenue from on-site visitor expenditure to fund conservation and interpretation programmes.
NPWS Lighthouses
Conservation Management and Cultural Tourism Plan

- NPWS shall acknowledge that as one of the few public or private sector agencies in Australia with control over a large collection of lighthouses, it has a rare opportunity to exploit their collective symbolism.

- NPWS shall establish a Lighthouses Marketing and Promotions Unit within the Community Relations Division to co-ordinate and develop the promotion of the nine NPWS Lighthouses as a collective resource.

- The Lighthouses Marketing and Promotions Unit could consist of a small team of skilled professionals either within the NPWS organisational structure or on a contractual basis.

The Lighthouses Marketing and Promotions Unit could become a profit centre which reports directly to NPWS management and be charged with the following tasks:

- Ensure the centralised image making and promotion of the entire resource reinforcing individual efforts into larger markets.

- Co-ordinate the international, national and regional marketing of the entire collective resource, to create a framework for individual efforts at the local level.

- Ensure that there is co-ordinated reservations support for local booking service providers.

- Co-ordinate the packaging and promotions of the lighthouse tourism products.

- Co-ordinate merchandise design, purchasing including quality standards, and market research.

- Maximise off site merchandising and income revenue opportunities.

- Control or co-ordinate the marketing of specially designed graphic representations in a wide range of media and on various forms of merchandise.

- Co-ordinate or managing the licensing of the commercial exploitation of photography or filming of the Lighthouses.

- Ensure that there is appropriate regard given to Aboriginal interests and initiatives.

- Generate off-site revenue for the conservation of the entire NPWS Lighthouse collection.

- Provide co-ordinating advice on all off-site operations, from public relations to Internet design, site promotion, merchandise commissioning and purchasing, licensing, major events management, relations with other national and international bodies with a similar interest.

- Work closely with the individual District office or site manager, reinforcing their role.

- Provide a central point of contact for external enquiry every time someone wants to do something at a lighthouse.

- Provide co-ordinating advice on the overall staging of development and capital works programmes to ensure that there is cyclical sense of renewal of the tourism attractions and tourism “product” represented by the NPWS Lighthouses.

- Ensure that the impressions encouraged by the promotional representation of both the collective resource and the individual sites reflects the messages and priorities of their respective interpretation plans.
Part E
Implementing the Plan
23.0
Priorities And Staging

23.1
Priorities

The works required to manage the landscape, conserve the buildings site and precinct, liaise with stakeholders and open up cultural tourism opportunities over the next few years will vary from Lighthouse to Lighthouse. In general the District staff and site managers will need to prioritise the potential activities to suit available resources.

Some programmes can be implemented quickly, others take some time to reach fruition or to become consolidated in the marketplace. The recommendations set out in this Plan have been prioritised into Short, Medium and Longer Term actions. Each Lighthouse has activities which are in progress and which should be continued.

This section sets out the implementation of the general conservation, management, interpretation and cultural tourism policies for the collective NPWS Lighthouse resource. The Supplementary Information provided for each Lighthouse also establishes prioritised, specific implementation guidelines. The general and specific implementation guidelines must be read together for any particular site.

23.2
On-Going Activities

Every NPWS Lighthouse has certain activities already under way in terms of conservation, reuse and tourism programmes. Each is located within national parks which have often been managed by the Service for decades. Other activities which are on-going may include AMSA navigational aid management, tourism and recreational activities in the vicinity, use of the area by Aboriginal people, holiday accommodation and tours, scientific research and many others.

It is not the intention of this Plan to override programmes and activities that are already in place and operating successfully. These should be reassessed from time to time but not concluded if they need to be a consistent feature of the place and its success.

23.3
Short Term Activities

Short term actions are those which can and need to be completed within one year.

They often include early planning work or assessing the feasibility of medium or longer term ideas and opportunities.

23.4
Medium Term Activities

Medium term activities are those which can or should be undertaken within the next five years.

They recognise that some actions need to be planned and evaluated before they can be implemented, while others will take a while to get started, given the available financial resources and then run for a few years.

23.5
Longer Term Activities

These are actions which are not expected to commence for up to five years or which need a major change in the overall situation of the place before they will become feasible or realistic.

They also include the on-going management and monitoring programmes that will consolidate the Lighthouses as a major resource for the Service.
### 24.0
NPWS Management Implementation

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<tr>
<th>SHORT TERM ACTIONS</th>
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<tbody>
<tr>
<td>&lt;1 year</td>
<td>&gt; 5 years</td>
<td>5 years plus</td>
</tr>
<tr>
<td>Review and endorse the Conservation Management and Cultural Tourism Plan</td>
<td>Establish the NPWS Lighthouses Reference Committee or an organisational structure with the same functions</td>
<td>Manage the Lighthouses as a collective resource</td>
</tr>
<tr>
<td>Maintain liaison with AMSA and DLWC regarding management issues.</td>
<td>Invite AMSA and DLWC involvement on Reference Committee</td>
<td>Maintain long term liaison with AMSA and DLWC as appropriate</td>
</tr>
<tr>
<td>Resolve negotiations with Commonwealth over South Solitary Island</td>
<td>Incorporate South Solitary into the collective resource</td>
<td>Manage South Solitary as a full collective member.</td>
</tr>
<tr>
<td>Review gazettal issues for each Lighthouse site, particularly South Solitary</td>
<td>Gazette Lighthouse sites into adjacent national parks as appropriate</td>
<td>Manage the sites as components of the adjacent national parks</td>
</tr>
<tr>
<td>Confirm the particular heritage management agencies and community groups that relate to each Lighthouse</td>
<td>Establish and maintain appropriate liaison mechanisms and submit documentation of proposals as appropriate</td>
<td>Maintain long term relationships with interested heritage management parties</td>
</tr>
<tr>
<td>Refer the CM&amp;CTP to the AHC and Heritage Office for review and endorsement</td>
<td>Establish that the sites can be managed in accordance with the CM&amp;CTP without further reference to the Heritage Office</td>
<td>Monitor the management of sites in relation to the need for future referrals to the Heritage Office</td>
</tr>
<tr>
<td>Review Plans of Management in the light of the findings and recommendations of the CM&amp;CTP</td>
<td>Amend the Plans of Management as necessary</td>
<td>Review Plans of Management as appropriate</td>
</tr>
<tr>
<td>Enhance current Treasury submissions for recurrent long term funding for maintenance</td>
<td>Secure or allocate long term funding for maintenance programmes</td>
<td>Ensure long term funding allocations for maintenance programmes</td>
</tr>
<tr>
<td>Revue recommendations of the associated Economic Feasibility Study</td>
<td>Resolve the issue of revenue allocation between individual sites and the entire collection</td>
<td>Ensure that funding raised through the collective resource is largely available for their conservation management</td>
</tr>
<tr>
<td>Consider the current situation for each Lighthouse in relation to the development and cultural tourism opportunities</td>
<td>Develop and implement a staged programme for the realisation of medium term opportunities</td>
<td>Develop and implement a staged programme for the realisation of long term opportunities</td>
</tr>
<tr>
<td>Review opportunities for commercial operator involvement in selected Lighthouses</td>
<td>Prepare and distribute Commercial Operator Guidelines that discuss conservation objectives</td>
<td>Monitor the long term commercial involvement of commercial operators</td>
</tr>
<tr>
<td>Maintain existing security regimes, including caretakers</td>
<td>Develop and implement upgraded security regimes</td>
<td>Ensure long term security of the sites and resources</td>
</tr>
<tr>
<td>Identify and formulate oral and documentary research projects</td>
<td>Implement oral and documentary research projects</td>
<td>Establish long term research projects to progressively improve the understanding of significance</td>
</tr>
<tr>
<td>Review the CM&amp;CTP at the end of five years</td>
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<td>Review the CM&amp;CTP every five years</td>
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25.0
Aboriginal Heritage Conservation Implementation

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<thead>
<tr>
<th>SHORT TERM ACTIONS &lt; 1 year</th>
<th>MEDIUM TERM ACTIONS &gt; 5 years</th>
<th>LONG TERM ACTIONS 5 years plus</th>
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<tbody>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Aboriginal heritage issues</td>
<td>Bring the management of Aboriginal heritage issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Aboriginal heritage issues within the collective resource framework</td>
</tr>
<tr>
<td>Review current consultation procedures with each relevant Aboriginal community and establish consultation with Native Title Claimant group</td>
<td>Establish appropriate consultation framework such as MOU, joint management or other liaison mechanisms with each relevant Aboriginal community to guide consultation processes for the management of heritage issues</td>
<td>Consolidate and regularly review consultation processes with Aboriginal communities</td>
</tr>
<tr>
<td>Review the current situation with Native Title claims over the Lighthouse precincts</td>
<td>Establish consultation processes in response to Native Title issues</td>
<td>Monitor and respond to developments in relation to Native Title claims</td>
</tr>
<tr>
<td>Review the current situation with “Aboriginal Ownership” issues over the Lighthouse precincts</td>
<td>Establish consultation processes in response to “Aboriginal Ownership” issues</td>
<td>Monitor and respond to developments in relation to “Aboriginal Ownership” claims</td>
</tr>
<tr>
<td>Identify which Lighthouse curtilages and precincts have been adequately surveyed</td>
<td>Formulate and implement a progressive series of site surveys, related to likely development initiatives</td>
<td>Monitor the longer term collection of site related information</td>
</tr>
<tr>
<td>Continue consulting the communities to consolidate the current understanding of Aboriginal heritage characteristics</td>
<td>Develop and implement continuing programmes of consultation and research into Aboriginal heritage characteristics</td>
<td>Periodically update the assessments of significance for the Lighthouses with regard to the understanding of Aboriginal heritage characteristics</td>
</tr>
<tr>
<td>Identify those members of the Aboriginal community who should be involved in an oral history programme over the next five years</td>
<td>Formulate and implement a progressive series of oral history programmes within the Aboriginal communities</td>
<td>Implement a long term series of oral history programmes within the Aboriginal communities</td>
</tr>
<tr>
<td>Identify current proposals for Aboriginal cultural tourism programmes</td>
<td>Facilitate as appropriate Aboriginal cultural tourism programmes at the Lighthouses</td>
<td>Monitor long term Aboriginal cultural tourism programmes</td>
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26.0
Landscape Conservation Implementation

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</tr>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Landscape heritage issues</td>
<td>Bring the management of Landscape heritage issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Landscape heritage issues within the collective resource framework</td>
</tr>
<tr>
<td>Identify and inventory the cultural landscape features of the Headland or Island and the immediate curtilage of each Lighthouse</td>
<td>Develop and implement continuing programmes of research into the natural and cultural features of the Landscape</td>
<td>Periodically update the assessments of significance for the Lighthouses with regard to the understanding of Landscape heritage characteristics</td>
</tr>
<tr>
<td>Continue current programmes of weed control and landscape management</td>
<td>Co-ordinate landscape management programmes with surveys of Aboriginal sites</td>
<td>Monitor the long term landscape character</td>
</tr>
<tr>
<td>Identify the Landscape Management Zones as they apply to each Lighthouse</td>
<td>Develop and implement landscape management and conservation plans for each Lighthouse</td>
<td>Implement long term landscape management and conservation programmes for each Lighthouse</td>
</tr>
<tr>
<td>Continue to manage the natural characteristics of the Landscaped backdrop in accordance with Service policies</td>
<td>Continue to manage the natural characteristics of the Landscaped backdrop in accordance with Service policies</td>
<td>Continue to manage the natural characteristics of the Landscaped backdrop in accordance with Service policies</td>
</tr>
<tr>
<td>Review the characteristics of the natural backdrop which contribute to the sense of isolation</td>
<td>Monitor and comment on any planning or development proposals in the vicinity which might adversely affect the natural backdrop</td>
<td>Monitor and comment on any planning or development proposals in the vicinity which might adversely affect the natural backdrop</td>
</tr>
<tr>
<td>Assess the patterns of walking tracks within the adjacent Park</td>
<td>Upgrade as necessary the walking tracks within the adjacent park</td>
<td>Monitor the condition and utility of the walking tracks in the Park</td>
</tr>
<tr>
<td>Review current impacts of tourism on Landscape heritage characteristics</td>
<td>Incorporate Landscape management and conservation activities into site specific tourism plans</td>
<td>Monitor the impacts of tourism on the Landscape heritage characteristics</td>
</tr>
<tr>
<td>Review current local interest and involvement in Landscape management and conservation programmes</td>
<td>Develop and implement programmes to involve local people as appropriate in Landscape management and conservation</td>
<td>Monitor long term public involvement in Landscape management and conservation programmes</td>
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# Built Environment Conservation Implementation

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<tr>
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<tbody>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Built Environment Conservation issues</td>
<td>Bring the management of Built Environment Conservation issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Built Environment Conservation issues within the collective resource framework</td>
</tr>
<tr>
<td>Review the coverage of the current documentary information available for each Lighthouse</td>
<td>Prepare illustrated inventories of the buildings and structures at each Lighthouse</td>
<td>Periodically update the inventory for each Lighthouse</td>
</tr>
<tr>
<td>Complete outstanding approved catch-up repair programmes at each Lighthouse</td>
<td>Develop and implement rigorous but appropriate maintenance and minor repair programmes at each Lighthouse</td>
<td>Ensure the long term continuity of maintenance and minor repair programmes at each Lighthouse</td>
</tr>
<tr>
<td>Investigate the condition of all buildings and structures against the finding s of the AMSA CMPs</td>
<td>Identify any outstanding repair or building conservation works and complete</td>
<td>Periodically monitor the condition of all buildings and repair as necessary</td>
</tr>
<tr>
<td>Facilitate on-going fabric maintenance programmes for which AMSA are responsible</td>
<td>Facilitate on-going fabric maintenance programmes for which AMSA are responsible</td>
<td>Facilitate on-going fabric maintenance programmes for which AMSA are responsible</td>
</tr>
<tr>
<td>Finalise agreements with Commonwealth regarding the conservation of South Solitary cottages</td>
<td>Ensure that the South Solitary Cottages are conserved by low key preservation</td>
<td>Undertake long term conservation of South Solitary Cottages as per future determination</td>
</tr>
<tr>
<td>Ensure that the Point Stephens cottages are stabilised in the short term</td>
<td>Carry out detailed planning and architectural studies for the reconstruction of the Point Stephens cottages</td>
<td>Reconstruct the Point Stephens Cottages and prepare for re-use</td>
</tr>
<tr>
<td>Review the situation with regard to the Barrenjoey cottages</td>
<td>Monitor the situation with the Barrenjoey cottages</td>
<td>Undertake conservation works when the Barrenjoey cottages become available</td>
</tr>
<tr>
<td>Complete outstanding external repairs to the South Head cottages</td>
<td>Complete internal upgrading of the South Head cottages</td>
<td>Monitor the condition of the South Head cottages</td>
</tr>
<tr>
<td>Review all buildings in relation to BCA compliance and re-use concepts</td>
<td>Develop appropriate responses to BCA compliance requirements</td>
<td>Periodically monitor buildings for BCA compliance</td>
</tr>
<tr>
<td>Review the current measured drawing documentation available for each Lighthouse building and structure</td>
<td>Progressively prepare measured drawings and photographic records of all buildings</td>
<td>Update documentary records in accordance with completed conservation and re-use programmes</td>
</tr>
<tr>
<td>Identify available professional and technical skills for future conservation programmes</td>
<td>Ensure that appropriate skills and experience are utilised for any conservation works</td>
<td>Ensure that appropriate skills and experience are utilised for any conservation works</td>
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### 28.0

**Historical Archaeology Conservation Implementation**

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<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Historical Archaeology issues</td>
<td>Bring the management of Historical Archaeology issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Historical Archaeology issues within the collective resource framework</td>
</tr>
<tr>
<td>Review the current knowledge about historical archaeological resources at each site</td>
<td>Prepare Archaeological Zoning Plans for each Lighthouse, as appropriate</td>
<td>Update the Archaeological Zoning Plans as additional information comes to light through further research</td>
</tr>
<tr>
<td>Consider the potential for archaeological research to enhance the Interpretation of the sites</td>
<td>Conduct Archaeological Assessments and research as appropriate to enhance the Interpretation programmes</td>
<td>Conduct Archaeological Assessments and research as appropriate to enhance the Interpretation programmes</td>
</tr>
<tr>
<td>Seek Heritage Office endorsement of the archaeological management recommendations of the CM&amp;CTP</td>
<td>Liaise with the Service archaeologist and the Heritage Office as appropriate in relation to the management of archaeological resources</td>
<td>Liaise with the Service archaeologist and the Heritage Office as appropriate in relation to the management of archaeological resources</td>
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## 29.0 Lighthouse Precinct Conservation Implementation

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<tbody>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Precinct Conservation issues</td>
<td>Bring the management of Precinct Conservation issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Precinct Conservation issues within the collective resource framework</td>
</tr>
<tr>
<td>Review the provision of site infrastructure in relation to existing and projected tourism activities</td>
<td>Upgrade the site infrastructure as required in accordance with approved re-use programmes</td>
<td>Monitor and maintain the infrastructure and periodically upgrade as required</td>
</tr>
<tr>
<td>Review proposed site tourism programmes and identify where new paving, driveways and pathways may be required</td>
<td>Carefully design and construct approved new paving and driveways in accordance with the overall CM&amp;CTP recommendations</td>
<td>Monitor and maintain the condition of all site paving, driveways and pathways.</td>
</tr>
<tr>
<td>Review the current lease and access agreements with AMSA and NSW Waterways, as they may affect the general ambience of the sites</td>
<td>Liaise with AMSA and NSW Waterways regarding any likely upgrading of navigational equipment or systems</td>
<td>Liaise with AMSA and NSW Waterways regarding any likely upgrading of navigational equipment or systems</td>
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# 30.0
## Building Adaption Implementation

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<tr>
<td>&lt; 1 year</td>
<td>Bring the management of Building Adaption issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Building Adaption issues within the collective resource framework</td>
</tr>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Building Adaption issues</td>
<td>Upgrade provision of fittings, fixtures and services within approved programmes of re-use</td>
<td>Monitor the adequacy of fittings, fixtures and services for on-going programmes of re-use</td>
</tr>
<tr>
<td>Review the fittings, fixtures and services provisions for each building proposed for approved re-use programmes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 31.0 Interpretation Plan Implementation

<table>
<thead>
<tr>
<th>SHORT TERM ACTIONS &lt; 1 year</th>
<th>MEDIUM TERM ACTIONS &gt; 5 years</th>
<th>LONG TERM ACTIONS 5 years plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Interpretation issues</td>
<td>Bring the management of Interpretation issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Interpretation issues within the collective resource framework. Periodically review and update the Collective Resource Interpretation Plan</td>
</tr>
<tr>
<td>Prepare briefs for the preparation of site specific interpretation plans</td>
<td>Commission the preparation of site specific interpretation plans as appropriate</td>
<td>Review and periodically update the site specific interpretation plans</td>
</tr>
<tr>
<td>Prepare an inventory of all existing historic graphic and documentary material which can be used to support collective and individual interpretation plans</td>
<td>Select from the available graphic and documentary material and incorporate into interpretation programmes</td>
<td>Undertake long term research to identify additional graphic and documentary resources</td>
</tr>
<tr>
<td>Establish relevant ownership and copyright information for all graphic material which may be reproduced in the interpretation programmes</td>
<td>Commission new visual image capture programmes for the Lighthouses and their settings to support both on-site and off-site interpretation and promotion programmes</td>
<td>Periodically update visual images utilised in the interpretation programmes</td>
</tr>
<tr>
<td>Identify, inventory and acquire the necessary rights to existing relevant historical and contemporary motion picture footage which may be reproduced in the interpretation programmes</td>
<td>Commission new motion picture capture to support both on-site and off-site interpretation and promotion programmes</td>
<td>Periodically update the motion picture images utilised in the interpretation programmes</td>
</tr>
<tr>
<td>Identify any existing historical audio material which may be reproduced in the interpretation programmes</td>
<td>Undertake further research and implement oral history capture programmes with both Aboriginal people and Lighthouse Service personnel as appropriate</td>
<td>Periodically undertake oral history programmes to cater for staff and personnel changes</td>
</tr>
<tr>
<td>Commission the writing of a collective resource storyline</td>
<td>Complete the writing of the collective resource storyline</td>
<td>Periodically commission additional components of the collective resource storyline</td>
</tr>
<tr>
<td>Commission the design of a collective resource logo</td>
<td>Complete the production and utilisation of the collective resource logo</td>
<td>Periodically review the collective resource logo and update as required</td>
</tr>
<tr>
<td>Commission the co-ordinated design of outdoor signage for both on-site and off-site locations</td>
<td>Complete the production and utilisation of co-ordinated design of outdoor signage</td>
<td>Periodically review the co-ordinated outdoor signage and update as necessary</td>
</tr>
<tr>
<td>Commence preliminary design and development of interpretative material</td>
<td>Complete production and utilisation of interpretative material</td>
<td>Periodically review the interpretative material and update as necessary</td>
</tr>
<tr>
<td>Commission the production of promotional material, books, films and graphic material</td>
<td>Produce and distribute promotional material, books, films and graphic material</td>
<td>Periodically review and update promotional material, books, films and graphic material</td>
</tr>
<tr>
<td>Continue current on-site interpretation programmes</td>
<td>Implement upgraded on-site interpretation programmes in accordance with site specific interpretation plans</td>
<td>Periodically review and upgrade on-site interpretation programmes</td>
</tr>
</tbody>
</table>
## 32.0 Cultural Tourism Plan Implementation

<table>
<thead>
<tr>
<th>SHORT TERM ACTIONS</th>
<th>MEDIUM TERM ACTIONS</th>
<th>LONG TERM ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>&lt; 1 year</strong></td>
<td><strong>&gt; 5 years</strong></td>
<td><strong>5 years plus</strong></td>
</tr>
<tr>
<td>Review and endorse the findings and recommendations of the CM&amp;CTP with regard to Cultural Tourism issues</td>
<td>Bring the management of Cultural Tourism issues within the co-ordinating role of the NPWS Lighthouses Reference Committee</td>
<td>Manage Cultural Tourism issues within the collective resource framework</td>
</tr>
<tr>
<td>Consider the potential establishment of a Lighthouses Promotion Taskforce</td>
<td>Establish appropriate mechanisms for the co-ordination of those activities identified in the CM&amp;CTP for the taskforce</td>
<td>Monitor the co-ordinated promotional activities and upgrade as required</td>
</tr>
<tr>
<td>Review the current NPWS media strategy</td>
<td>Upgrade and implement the NPWS media strategy</td>
<td>Monitor the NPWS media strategy</td>
</tr>
<tr>
<td>Review the critical visitor management issues and opportunities for each site</td>
<td>Prepare site specific tourism plans for each Lighthouse</td>
<td>Periodically review and update site specific tourism plans</td>
</tr>
<tr>
<td>Review current on-site visitor programmes and activities</td>
<td>Facilitate increased on-site visitor programmes</td>
<td>Regularly monitor on-site visitor programmes</td>
</tr>
<tr>
<td>Review the initial impressions given to visitors as they approach the sites</td>
<td>Upgrade the initial points of contact, signage, gates and entry points for each site</td>
<td>Monitor the initial impressions which the visitor gains when approaching the individual sites</td>
</tr>
<tr>
<td>Review the current arrangements for visitor car and bus parking</td>
<td>Design and develop improved facilities for visitor car and bus parking, within overall CM&amp;CTP policies and guidelines</td>
<td>Monitor the levels of visitor car and bus parking and general access arrangements</td>
</tr>
<tr>
<td>Review current visitor access arrangements for the island sites</td>
<td>Potentially upgrade visitor access arrangements for the island sites</td>
<td>Monitor levels and methodologies for visitor access to island sites</td>
</tr>
<tr>
<td>Review current levels of visitor facilities and services</td>
<td>Upgrade visitor facilities and services within approved cultural tourism programmes</td>
<td>Monitor the provision and impact of tourism facilities and services</td>
</tr>
<tr>
<td>Review current provision of on-site and off-site retail opportunities</td>
<td>Upgrade on-site and off-site retail opportunities</td>
<td>Monitor on-site and off-site retail opportunities</td>
</tr>
<tr>
<td>Review current recreational activity licences</td>
<td>Upgrade or expand as appropriate recreational activity licences</td>
<td>Monitor recreational activity licences</td>
</tr>
<tr>
<td>Review the provision of on site medical and emergency services</td>
<td>Upgrade as appropriate the provision of on site medical and emergency services</td>
<td>Monitor the provision of on site medical and emergency services</td>
</tr>
<tr>
<td>Review current local community involvement with tourism activities</td>
<td>Upgrade linkages and facilitate with local community involvement in tourism activities</td>
<td>Monitor local community involvement with tourism activities</td>
</tr>
<tr>
<td>Review current linkages with local tourism information and promotion activities</td>
<td>Upgrade as appropriate linkages with local tourism information and promotion activities</td>
<td>Monitor linkages with local tourism information and promotion activities</td>
</tr>
<tr>
<td>Review current opportunities for upgrading existing non Lighthouse buildings within the sites or precincts for additional revenue generation</td>
<td>Upgrade as appropriate existing non Lighthouse buildings within the sites or precincts for additional revenue generation</td>
<td>Monitor the use and revenue generation of non Lighthouse buildings</td>
</tr>
</tbody>
</table>
Part F

Supporting Material
33.0
Selected Bibliography

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- lighthouses.net.au
- soton.ac.uk/-ktl/about.html
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- maine.com/lights/www-vi.html

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2
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3
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4
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5 New York Times Article, Date Obscured on extract

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7 At Scotland's Edge, pp. 149

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35.0 ICOMOS International Cultural Tourism Charter

The ICOMOS Cultural Tourism Charter is attached overleaf as additional reference material for the implementation of the Lighthouses Conservation Management and Cultural Tourism Plan. The Charter has been written by Graham Brooks, in his capacity as the International Coordinator for the revision process, on behalf of the ICOMOS International Specialised Committee on Cultural Tourism.

The revised version of the ICOMOS International Cultural Tourism Charter has been developed by the ICOMOS International Specialist Committee on Cultural Tourism, over the last two years. It was unanimously endorsed at the ICOMOS General Assembly in Mexico in October 1999.

This Charter replaces the 1976 ICOMOS Cultural Tourism Charter, and reflects the enormous growth in world wide tourism since that time, as well as the changing attitudes and methodologies within the conservation community, those who safeguard and manage the world’s cultural heritage places.

A major difference between the two charters concerns the fundamental relationship between conservation and tourism. The original Charter concentrated on managing the tensions between tourists at heritage sites and those charged with protecting and conserving the places. Tourists were seen by many conservationists as a threat to the physical integrity and atmosphere of the place.

The new Charter seeks a new relationship. It promotes the concept that one of the major reasons for undertaking any form of conservation is to make the heritage significance of the place or object accessible to the visitor, in a managed way. Without a high level of public awareness and support the conservation of buildings and the cultural heritage generally will never achieve the political and funding support necessary for its survival.

The tourism industry is fully aware that heritage
places and traditional cultures form a major percentage of the world’s tourism attractions. They are equally aware how fragile they are. The ICOMOS International Cultural Tourism Charter encourages conservationists and the tourism industry to join together to meet this challenge and achieve a long term sustainability for the cultural heritage of every host community.
December 1998
8th DRAFT, FOR ADOPTION BY ICOMOS GENERAL ASSEMBLY, OCTOBER 1999

INTERNATIONAL CULTURAL TOURISM CHARTER
MANAGING TOURISM AT PLACES OF HERITAGE SIGNIFICANCE

Introduction

The Charter Ethos

At the broadest level, the natural and cultural heritage belongs to all people. We each have a right and responsibility to understand, appreciate and conserve its universal values.

Heritage is a broad concept and includes the natural as well as the cultural environment. It encompasses landscapes, historic places, sites and built environments, as well as biodiversity, collections, past and continuing cultural practices, knowledge and living experiences. It records and expresses the long processes of historic development, forming the essence of diverse national, regional, indigenous and local identities and is an integral part of modern life. It is a dynamic reference point and positive instrument for growth and change. The particular heritage and collective memory of each locality or community is irreplaceable and an important foundation for development, both now and into the future.

At a time of increasing globalisation, the protection, conservation, interpretation and presentation of the heritage and cultural diversity of any particular place or region is an important challenge for people everywhere. However, management of that heritage, within a framework of internationally recognised and appropriately applied standards, is usually the responsibility of the particular community or custodian group.

A primary objective for managing heritage is to communicate its significance and need for its conservation to its host community and to visitors. Reasonable and well managed physical, intellectual and/or emotive access to heritage and cultural development is both a right and a privilege. It brings with it a duty of respect for the heritage values, interests and equity of the present-day host community, indigenous custodians or owners of historic property and for the landscapes and cultures from which that heritage evolved.

The Dynamic Interaction between Tourism and Cultural Heritage

Domestic and international tourism continues to be among the foremost vehicles for cultural exchange, providing a personal experience, not only of that which has survived from the past, but of the contemporary life and society of others. It is increasingly appreciated as a positive force for natural and cultural conservation. Tourism can capture the economic characteristics of the heritage and harness these for conservation by generating funding, educating the community and influencing policy. It is an essential part of many national and regional economies and can be an important factor in development, when managed successfully.
Tourism itself has become an increasingly complex phenomenon, with political, economic, social, cultural, educational, bio-physical, ecological and aesthetic dimensions. The achievement of a beneficial inter-action between the potentially conflicting expectations and aspirations of visitors and host or local communities, presents many challenges and opportunities.

The natural and cultural heritage, diversities and living cultures are major tourism attractions. Excessive or poorly-managed tourism and tourism related development can threaten their physical nature, integrity and significant characteristics. The ecological setting, culture and lifestyles of host communities may also be degraded, along with the visitor's experience of the place.

Tourism should bring benefits to host communities and provide an important means and motivation for them to care for and maintain their heritage and cultural practices. The involvement and co-operation of local and/or indigenous community representatives, conservationists, tourism operators, property owners, policy makers, those preparing national development plans and site managers is necessary to achieve a sustainable tourism industry and enhance the protection of heritage resources for future generations.

ICOMOS, the International Council on Monuments and Sites, as the author of this Charter, other international organisations and the tourism industry, are dedicated to this challenge.

Objectives of the Charter

The Objectives of the International Cultural Tourism Charter are:

- To facilitate and encourage those involved with heritage conservation and management to make the significance of that heritage accessible to the host community and visitors.

- To facilitate and encourage the tourism industry to promote and manage tourism in ways that respect and enhance the heritage and living cultures of host communities.

- To facilitate and encourage a dialogue between conservation interests and the tourism industry about the importance and fragile nature of heritage places, collections and living cultures including the need to achieve a sustainable future for them.

- To encourage those formulating plans and policies to develop detailed, measurable goals and strategies relating to the presentation and interpretation of heritage places and cultural activities, in the context of their preservation and conservation.

In addition,

- The Charter supports wider initiatives by ICOMOS, other international bodies and the tourism industry in maintaining the integrity of heritage management and conservation.

- The Charter encourages the involvement of all those with relevant or at times conflicting interests, responsibilities and obligations to join in achieving its objectives.

- The Charter encourages the formulation of detailed guidelines by interested parties, facilitating the implementation of the Principles to their specific circumstances or the requirements of particular organisations and communities.
Principles of the Cultural Tourism Charter

Principle 1
Since domestic and international tourism is among the foremost vehicles for cultural exchange, conservation should provide responsible and well managed opportunities for members of the host community and visitors to experience and understand that community's heritage and culture at first hand.

1.1
The natural and cultural heritage is a material and spiritual resource, providing a narrative of historical development. It has an important role in modern life and should be made physically, intellectually and/or emotively accessible to the general public. Programmes for the protection and conservation of the physical attributes, intangible aspects, contemporary cultural expressions and broad context, should facilitate an understanding and appreciation of the heritage significance by the host community and the visitor, in an equitable and affordable manner.

1.2
Individual aspects of natural and cultural heritage have differing levels of significance, some with universal values, others of national, regional or local importance. Interpretation programmes should present that significance in a relevant and accessible manner to the host community and the visitor, with appropriate, stimulating and contemporary forms of education, media, technology and personal explanation of historical, environmental and cultural information.

1.3
Interpretation and presentation programmes should facilitate and encourage the high level of public awareness and support necessary for the long term survival of the natural and cultural heritage.

1.4
Interpretation programmes should present the significance of heritage places, traditions and cultural practices within the past experience and present diversities of the area and the host community, including that of minority cultural or linguistic groups. The visitor should always be informed of the differing cultural values that may be ascribed to a particular heritage resource.

Principle 2
The relationship between Heritage Places and Tourism is dynamic and may involve conflicting values. It should be managed in a sustainable way for present and future generations.

2.1
Places of heritage significance have an intrinsic value for all people as an important basis for cultural diversity and social development. The long term protection and conservation of living cultures, heritage places, collections, their physical and ecological integrity and their environmental context, should be an essential component of social, economic, political, legislative, cultural and tourism development policies.
2.2
The interaction between heritage resources or values and tourism is dynamic and ever changing, generating both opportunities and challenges, as well as potential conflicts. Tourism projects, activities and developments should achieve positive outcomes and minimise adverse impacts on the heritage and lifestyles of the host community, while responding to the needs and aspirations of the visitor.

2.3
Conservation, interpretation and tourism development programmes should be based on a comprehensive understanding of the specific, but often complex or conflicting aspects of heritage significance of the particular place. Continuing research and consultation are important to furthering the evolving understanding and appreciation of that significance.

2.4
The retention of the authenticity of heritage places and collections is important. It is an essential element of their cultural significance, as expressed in the physical material, collected memory and intangible traditions that remain from the past. Programmes should present and interpret the authenticity of places and cultural experiences to enhance the appreciation and understanding of that cultural heritage.

2.5
Tourism development and infrastructure projects should take account of the aesthetic, social and cultural dimensions, natural and cultural landscapes, bio-diversity characteristics and the broader visual context of heritage places. Preference should be given to using local materials and take account of local architectural styles or vernacular traditions.

2.6
Before heritage places are promoted or developed for increased tourism, management plans should assess the natural and cultural values of the resource. They should then establish appropriate limits of acceptable change, particularly in relation to the impact of visitor numbers on the physical characteristics, integrity, ecology and biodiversity of the place, local access and transportation systems and the social, economic and cultural well being of the host community. If the likely level of change is unacceptable the development proposal should be modified.

2.7
There should be on-going programmes of evaluation to assess the progressive impacts of tourism activities and development on the particular place or community.

Principle 3
Conservation and Tourism Planning for Heritage Places should ensure that the Visitor Experience will be worthwhile, satisfying and enjoyable.

3.1
Conservation and tourism programmes should present high quality information to optimise the visitor’s understanding of the significant heritage characteristics and of the need for their protection, enabling the visitor to enjoy the place in an appropriate manner.

3.2
Visitors should be able to experience the heritage place at their own pace, if they so choose. Specific circulation routes may be necessary to minimise impacts on the integrity and physical fabric of a place, its natural and cultural characteristics.
3.3 Respect for the sanctity of spiritual places, practices and traditions is an important consideration for site managers, visitors, policy makers, planners and tourism operators. Visitors should be encouraged to behave as welcomed guests, respecting the values and lifestyles of the host community, rejecting possible theft or illicit trade in cultural property and conducting themselves in a responsible manner which would generate a renewed welcome, should they return.

3.4 Planning for tourism activities should provide appropriate facilities for the comfort, safety and well being of the visitor, that enhance the enjoyment of the visit but do not adversely impact on the significant features or ecological characteristics.

Principle 4
Host communities and indigenous peoples should be involved in planning for conservation and tourism.

4.1 The rights and interests of the host community, at regional and local levels, property owners and relevant indigenous peoples who may exercise traditional rights or responsibilities over their own land and its significant sites, should be respected. They should be involved in establishing goals, strategies, policies and protocols for the identification, conservation, management, presentation and interpretation of their heritage resources, cultural practices and contemporary cultural expressions, in the tourism context.

4.2 While the heritage of any specific place or region may have a universal dimension, the needs and wishes of some communities or indigenous peoples to restrict or manage physical, spiritual or intellectual access to certain cultural practices, knowledge, beliefs, activities, artefacts or sites should be respected.

Principle 5
Tourism and conservation activities should benefit the host community.

5.1 Policy makers should promote measures for the equitable distribution of the benefits of tourism to be shared across countries or regions, improving the levels of socio-economic development and contributing where necessary to poverty alleviation.

5.2 Conservation management and tourism activities should provide equitable economic, social and cultural benefits to the men and women of the host or local community, at all levels, through education, training and the creation of full time employment opportunities.

5.3 A significant proportion of the revenue specifically derived from tourism programmes to heritage places should be allotted to the protection, conservation and presentation of those places, including their natural and cultural contexts. Where possible, visitors should be advised of this revenue allocation.
5.4
Tourism programmes should encourage the training and employment of guides and site interpreters from the host community to enhance the skills of local people in the presentation and interpretation of their cultural values.

5.5
Heritage interpretation and education programmes among the people of the host community should encourage the involvement of local site interpreters. The programmes should promote a knowledge and respect for their heritage, encouraging the local people to take a direct interest in its care and conservation.

5.6
Conservation management and tourism programmes should include education and training opportunities for policy makers, planners, researchers, designers, architects, interpreters, conservators and tourism operators. Participants should be encouraged to understand and help resolve the at times conflicting issues, opportunities and problems encountered by their colleagues.

**Principle 6**
Tourism promotion programmes should protect and enhance Natural and Cultural Heritage characteristics.

6.1
Tourism promotion programmes should create realistic expectations and responsibly inform potential visitors of the specific heritage characteristics of a place or host community, thereby encouraging them to behave appropriately.

6.2
Places and collections of heritage significance should be promoted and managed in ways which protect their authenticity and enhance the visitor experience by minimising fluctuations in arrivals and avoiding excessive numbers of visitors at any one time.

6.3
Tourism promotion programmes should provide a wider distribution of benefits and relieve the pressures on more popular places by encouraging visitors to experience the wider cultural and natural heritage characteristics of the region or locality.

6.4
The promotion, distribution and sale of local crafts and other products should provide a reasonable social and economic return to the host community, while ensuring that their cultural integrity is not degraded.

ICOMOS International Scientific Committee on Cultural Tourism.
Part G

Collective Resource
Interpretation Plan
1.0 Introduction

Among the principal public benefits that the Service delivers through the conservation of culturally significant places such as lighthouses is community access to them and to their significance.

Interpretation is the act of identifying or transmitting meaning. On the one hand, it comprises the process of working out an understanding of particular phenomena in, for example, the fields of life sciences, material culture or social history. On the other hand, interpretation includes the conceptual and methodological approaches and techniques through which this understanding may be communicated to the public.

Heritage interpretation is a process that plans and provides for all visitors, potential visitors and the public at large; physical, intellectual and emotional or spiritual access to the cultural and ecological significance of places, objects, natural systems and living things. Through appropriate technologies and the responsible stimulation of ideas and opinions, it encourages their protection, preservation and appreciation by and for present and future generations.

1.1 Context of the Interpretation Strategy

This Interpretation Strategy has been prepared as part of the “New National Parks and Wildlife Service’s NSW Lighthouses Conservation Management and Cultural Tourism Plan”. The Service has recently acquired (or is in the process of acquiring) 9 lighthouses and their associated residential structures and outbuildings. These facilities constructed between 1858 (Hornby) and the early 1950s (Cape Baiyer) are places of considerable cultural significance.

Each lighthouse and its precinct is unique in the details of its design and the technical aspects of its lens array. The specifics of each lighthouse’s natural setting and of its significance as a cultural landscape to both the indigenous people and others in the community are also different for each. Finally, each one has its own particular history of operation and associated maritime events.

At the same time, each lighthouse is clearly part of a collection of similar historic resources, in predominantly natural surrounds, unified by common characteristics and themes, and related through these to other such resources outside the NPWS collection.

The exceptional significance of this collection transcends that of its individual components.

In developing its approach to the conservation and management of these places, the Service wishes to optimise their function in the recreational, cultural and economic life of the community, through a concerted program of appropriate public presentation, access and use. Essential to this approach is the interplay and synergy among physical conservation, tourism/visitor management, and interpretation.

EXISTING INTERPRETIVE CONTEXT

In some individual cases, particularly where patterns of access are well established (e.g. Montague Island) and visitor accommodation facilities have already been developed (e.g. Smokey Cape, Cape Byron); interpretation is identified as the next high-priority requirement. Some creative steps have already been taken.

Personal interpretation programs (those involving face-to-face contact between visitors and staff, volunteers or commercial operators) are in place at these locations, although their planning methodology may be largely intuitive. The National Trust is developing a Museum Plan for the principal residence on Montague island and a “Welcome In” Children’s activity room is operating at Cape Byron. At the other locations, interpretation ranges from occasional tours, to some on-site signage, to nothing at all.

It is desirable to avoid duplication of research, planning and media production for each site, where their interpretation as a collection is concerned. Accordingly, the Conservation Management and Cultural Tourism Plan recommends (see Section 10.4) that interpretation planning for individual sites be deferred, pending the preparation of this Interpretation Strategy addressing the common elements and themes of the collection.

1.2 Goal of the Interpretation Strategy

The purpose of this strategy is to provide a convenient reference for the Service in the preparation of the required Briefs for research, writing, media design and fabrication for on-site and off-site interpretation of the significance of the lighthouse collection as a whole. It will also
recommend properties and an approach for the preparation of site-specific interpretation plans for each location.

1.3 Methodology

This strategy proceeds through three principal stages: Analysis of Issues and Resources, Media Planning and Project Definition.

1.3.1 The first, Analysis stage (2.0 below) will determine:

- what we want to say about this collection of places, by
  - identifying the interpretive objectives and major and minor themes for interpretation to produce a series of messages

- who we are trying to reach with these messages, by
  - summarising and evaluating existing visitor information and potential activity profiles

- how we can best organise and present the messages, by
  - describing a hierarchical approach to presentation of interpretive messages
  - identifying story line priorities

- what resources we have got to work with, by
  - identifying and evaluating the existing things, people, time and money available to meet the objectives
  - noting any outstanding requirements

- where the best places are to put each message, by
  - linking interpretive messages and functional information with appropriate locations on-site and elsewhere

1.3.2 Stage 2, the Media Planning stage (3.0, below) determines the physical means (or, “media”) that should be used to convey the messages to the visitor. This stage will:

- An interpretation policy for the collection
- Priorities for implementation
- Briefing requirements for writing, design, fabrication and installation
- Requirements for evaluation and review of program components
- Maintenance and periodic recapitalisation of interpretive media
2.0 Analysis – Issues And Resources

2.1 Interpretive Objectives

This Interpretation Strategy describes a concept to provide physical, intellectual and emotional or spiritual access for visitors to the collective cultural significance of the NPWS collection of historic lighthouses.

It addresses the common characteristics of its biophysical contexts, its structures, its technological artifacts and its history and human experiences.

It recommends non-personal media and personal programs to ensure that the interpretation of these shared attributes of the collection to the public, both on-site and elsewhere, reflects current best practice in heritage presentation.

Although many of these interpretive objectives will be echoed in the individual site-specific plans, our aim is to situate the specific precincts in the broader context of the collection.

As a result of the collection-level interpretive experience, visitors to any lighthouse precinct in the collection should:

Know:
- that it is one of 10 historic lighthouse sites presented by NPWS in NSW
- why and how the NSW system of coastal lights came to be built, (who initiated, built, ran and staffed it)
- how the lighting arrays evolved and the appearance and characteristics of the principal types
- that the collection as a whole and each of its lighthouses are important in the historic, aesthetic, social and scientific development of the country, the region and the community
- that many lighthouses are located in places whose significance extends back in time from the historic period to prehistoric times and that their traditional significance to Aboriginal people continues today
- that lighthouses are located in places of ecological as well as cultural significance
- what the duties of Head and Assistant Lighthouse Keepers were and the lifestyles of their families
- that there is more to find out in other locations in the precinct

Think:
- that this and other heritage precincts are special places that are worth preserving
- that, throughout their evolution, lighthouses have played significant and varied roles in the economic, cultural and recreational life of the community
- that the collection and its significance have been appropriately conserved and presented

Feel:
- that this place has touched people’s lives in significant ways
- motivated and empowered to explore public areas of the lighthouse precinct with comfort and confidence
- empathy with the people who lived and worked in the Lighthouse Service
- a sense of the continuing evolution of the place and of its functions in the life of the community
- that their personal growth has been enriched and their personal horizons expanded through a sense of place and an awareness of its significance

Understand:
- how the system of coastal lights functioned, and its significance in local, regional and national politics, trade and development
- how distinctive light characteristics identified each lighthouse
- how the collection is managed today and that it offers a varied range of interesting and pleasurable visitor experiences at different locations

Act:
- in ways that respect the fabric and spirit of the place
- in ways that acknowledge and support the ongoing responsibility of the NPWS to conserve and present this and other historic environments to a standard commensurate with their significance

2.2 Major and Minor Themes for Interpretation

Themes are concise statements of major topics, trends or stories in history. They have two main uses in interpretation. They are useful “checklists” that can help ensure that we do not overlook some significant connection between a particular place or thing and the larger historic context. Themes also provide a convenient conceptual means of grouping interpretive
communications in the planning stage and of structuring their delivery, as experiences, to the public.

Improperly applied, however, themes can have exactly the opposite effect, becoming obstacles to public appreciation of historic places and their significance. This happens when themes supplant things as the focus of interpretation.

Visitors come to experience places, buildings, things and each other. These are what they expect to find in heritage places; these are what is actually there; and these are the natural and legitimate focus of the visitor experience. If they are also to encounter themes, they should do so through these things, not the reverse.

Interpretation, which elevates the general (theme) at the expense of the particular (thing/place), can diminish the perceived significance of the resource. Poorly presented, thematic interpretation can patronise and alienate visitors by reducing the real, unique, experienced place to a mere illustration of some overarching abstraction — an objectified theme to be gazed at, rather than an element of lived experience.

Cultural heritage interpretation should not offer a simplistic, linear progression from theme, to thing, to significance. Rather, it is a process in which the specifics of places reveal the circumstances and values that produced them. The themes (as "patterns" of circumstances and values) can indeed add to appreciation of the resource's significance as a manifestation of larger "issues" or "forces of history". Thematic insight thus becomes an unexpected and stimulating dividend of the visitor experience, not a galling prerequisite.

Among the Principal Australian Themes and Sub-themes proposed by the Australian Heritage Commission, the following are particularly relevant to the lighthouses as a collection:

DEVELOPING AN AUSTRALIAN ECONOMY LINKED TO WORLD MARKETS
- Inspecting the coastline
- Exploiting natural resources
  - fishing and whaling
- Moving goods and people
  - shipping to and from Australian ports
  - developing harbour facilities
- Developing an Australian engineering and construction industry
- Struggling with remoteness, hardship and failure
- dealing with hazards and disasters
- Inventing devices (to cope with special Australian problems)
- Providing medical and dental services

WORKING IN AUSTRALIA
- Working in harsh conditions

EDUCATING AUSTRALIANS
- Educating people in remote places

GOVERNING AUSTRALIA
- Colonial government & inpetus to Federation
- Providing for the common defence
- Conserving Australian resources
  - conserving fragile environments
  - conserving Australia's heritage

DEVELOPING AUSTRALIAN CULTURAL INSTITUTIONS AND WAYS OF LIFE
- Commemoration of significant events
- Pursuing excellence in the arts and sciences
  - designing and building fine buildings

2.3 Levels of Interpretation

No two visitors are alike. Each visitor brings a different a combination of physical, intellectual and emotional expectations and requirements. Some are in a hurry. Others enjoy a more leisurely pace. Some are children. Some are elderly. Some visit alone. Many visit in groups. Not all are patient readers. English is not necessarily their first or most comfortable language. Some have physical disabilities.

Best practice interpretation seeks to address the needs and interests of all visitors in an equitable fashion by pitching its messages at a variety of paces and levels.

In order to appeal to a broad range of interests, ages and time constraints, this strategy specifies 3 levels of interpretation. This hierarchy will apply to all messages, regardless of medium:

a) Overviews and Highlights
b) Examples and Illustrations
c) Background and Details, Themes and Connections
In print media (such as signage or brochures) each level will be consistently distinguished by its graphic design (font, point size, etc).

Any interactive media will consistently associate each level of interpretation with a visual icon or symbol, to enable visitors rapidly to identify the level of detail that corresponds to their interest.

This hierarchy and its visual cues should also carry over into design of site-specific media, when interpretation is being planned for the individual lighthouses.

2.3.1 LEVEL ONE: OVERVIEWS AND HIGHLIGHTS

This most general level of interpretation answers the question: What?

Level One is suitable for introductory and orientation messages. It conveys broad concepts and basic information.

Overviews and highlights may purposely raise more questions than they answer.

This level is appropriate for:

- titles
- identification labels on visible features/objects
- basic statements of cultural significance
- introductory sentences/paragraphs/remarks

Level One Objective:

- management of expectations
- excitement of curiosity
- stimulation of speculation
- incentive to further inquiry

2.3.2 LEVEL TWO: EXAMPLES AND ILLUSTRATIONS

This level answers the question: So, what?

It amplifies the overviews and highlights with examples and illustrations of particular features, events, issues or personalities and offers more detailed contextual information.

At this level, differing points of view can be addressed. Answers to the questions raised at the overview level can be provided, and additional questions raised to encourage further investigation.

This level is appropriate for exploiting the collection's "ability to demonstrate".

Level Two Objectives:

- Satisfaction, the "ah, ha!" response
- Appreciation of lighthouses as the products of an interplay between circumstances (the "givens": natural, political, economic, social, etc.) and values (of the people confronting the circumstances: beliefs, mores, agendas, intentions, character, preconceptions, etc.)
- Treating the coastal light system as evidence that proves or demonstrates something about circumstances and values

2.3.3 LEVEL THREE: BACKGROUND AND DETAILS, THEMES AND CONNECTIONS

This level answers the question: What else?

Level Three provides detailed information, facts, figures and explanations corresponding to all the relevant messages for the collection.

It cross-references lighthouses outside the collection or their features, as appropriate, and incorporates a guide to further information, directing the visitor to more sources of knowledge (e.g. publications, other on or offsite media).

This level is appropriate for detailed examination of the system's historic, aesthetic, scientific and social significance.

Level Three Objective:

- Provide an in-depth understanding of the collection in relation to its architectural, geographical, (pre)historical, ecological and social contexts
- Indicate its scientific or research potential as a collection
- Develop circumstances and values as instances of broader "themes"
2.4 The Visitor

The more we understand about our visitors and our potential visitors – their “demographic, psychographic and behavioural” characteristics – the better we can target our presentation of the lighthouse collection to produce a pleasant and rewarding visitor experience.

2.4.1 AVAILABLE VISITOR INFORMATION

The NSW Tourism Master Plan, locates each of the lighthouse sites within a “major tourism impact node”, that is, areas currently receiving more than one million visitor/ nights per year.

The more recent Regional Tourism Strategy indicates that the preponderance of current visitors to these areas (within the exception of Sydney) originates in NSW itself.

The Service has recently commissioned a study of existing visitation at its lighthouse complexes (see Resources, below). Although the primary thrust of that report focuses on the financial feasibility of potential commercial uses at the individual sites and provides a specific summary of the market for lighthouse accommodation, it also provides the best available demographics and activity profiles of the target audience for interpretation. The Service will check whether the assessment tallies with the actual bookings experience of Byron and Smokey.

While there is significant variation in some visitor characteristics from site to site, it is possible to draw out certain common visitor traits that apply across all 9 properties in the collection.

Generally, most visitors:

- are on holiday
- are visiting friends and relatives (VFR)
- are adults aged 25 – 54 (about 30% are under 39. Many of these visitors may be parents bringing children. Few child data captured in the study)
- older couples or “empty nesters” are particularly significant outside school holiday periods
- most visitors are of domestic origin
- would visit as day-users
- would see “heritage experiences” as incidental to a range of holiday interests and exploits (beach, fishing, surfing, bushwalking, hang-gliding, marine mammal observation, etc.)

Prospective accommodation customers:

- are well-educated, affluent, upper middle class professionals, managers or entrepreneurs
- are mostly aged 35 – 54
- are 50% “empty nesters”
- are seeking experiences, insights and activities, rather than “tourist attractions”.

Many local visitors: (my impressions/ assumptions)

- are significant in directing/ bringing their VFR guests to local attractions
- habitually use the lighthouse precincts as destinations/ landmarks of trail walks
- are involved in local history or bushcare activities
- are knowledgeable about “their” lighthouse and receptive to learning more about the NPWS collection.

It would have been helpful to have data on the numbers of visitors who come from non-english speaking backgrounds. Clearer information on the numbers and ages of children visiting the sites would also have been useful. These are both interpretation issues and equity issues. They should be addressed in any future studies commissioned by the Service.

2.5 Storyline Priorities

An Interpretive Storyline sets out, in a prioritised (not necessarily chronological) order, all the information to be communicated about the collection in order to satisfy the interpretive objectives outlined in Section 2.1. It connects the specific details about the lighthouse collection to the context, of historic themes (Section 2.2) and expresses them as a series of messages, aimed at the visitor.

The Storyline does not prescribe the way in which its messages are to be delivered. Parts of the story may be told through various non – personal media, such as signage, videos or pamphlets; others may be more appropriate for face-to-face programs, such as guided tours or other staffed visitor activities.
The Storyline should be:

- written in a clear, accessible style
- readily adaptable, often verbatim, to a variety of media formats

It should avoid:

- jargon or specialised vocabulary
- bureaucratic tone
- the passive voice
- grammatical complexity

The writing of a detailed Storyline for NPWS Historic Lighthouses of New South Wales will be an early requirement of further interpretive planning. Our purpose, in this part of the interpretation strategy, is to identify the priorities, which should govern the development of that Storyline.

In contrast to storylines which will be developed for the particular lighthouse precincts in the context of their individual interpretation plans, this Storyline must be collection-based, rather than place-based. We are asking visitors to defer their experience of the actual, observable individual precinct while they assimilate an introduction to its context as part of the far-flung collection. The Storyline must, therefore, be concise and succinctly presented (see Linkage, Section 2.7 and Media Planning, Section 3.0).

Priorities for communication in the Storyline include these messages:

- **Ends of the Earth**: Remoteness and isolation of lighthouse locations, and the common biophysical characteristics of the coastal zone land/sea interface have made them places of adventure, contemplation, intimacy and revelation, for people of all times and all cultures.

- **The people**: significance of many lighthouse locations in Aboriginal tradition, accommodation and lifestyle of lighthouse keepers – pecking order, duties. Challenges of isolation: role of keepers’ wives and families, supplies, communications, a different kind of childhood, education and medical care.

- **The need for coastal lights** – battling the elements of a “fatal shore”

- **The first light** (South Head tripod beacon, 1790)

- **19th century shipping**, economic and political imperatives

- **The design**: Greenway sets architectural style for future lighthouse towers with Macquarie Tower, South Head (1816).

- **The vision**: Francis Hixson, “to illuminate the coast like a street with lamps”

- **The architects**: Dawson, James Barnet and the Colonial Architect’s “New South Wales Style”.

- **The means**: 19th century colonial prosperity reflected in materials and finishes.

- **The technology**: evolution of “nav aids” light sources and lens arrays.

- **The politics**: rationalisation of coastal lighting as an impetus to Federation.


- **A vanishing breed**: technological changes and the automation of lighthouses. Recent lighthouses. Recollections of retired lighthouse keepers.

- **The collection**: NPWS as manager of a significant collection of lighthouses, their locations and range of visitor uses and related recreational opportunities.

- **An invitation to explore other lighthouses** in the collection.

2.6 **Resources**

Resources in this sense include all the information, illustrations, things, people, funding and time needed to produce the desired visitor experience.

This section provides an inventory of the resources currently available. It also lists additional resources that are now on hand, but are required in order to meet the interpretive objectives (Section 2.1).

**DOCUMENTARY**

The principal documentary resource supporting interpretation planning at the collection level is *From Dusk to Dawn: a History of Australian Lighthouses* (Reid, Gordon, Foote, Griffin Press/
Macmillan, South Melbourne, 1988), particularly the Introduction and Chapters 6 and 14 through 17.

The individual Conservation Plans prepared for AMSA, contain (mostly identical) synopses of the development of lighthouses and their associated technology.

This new Conservation Management and Cultural Tourism Plan (CM & CTP) provides the strategic rationale for managing and interpreting the lighthouses as a distinct collection and situates them in the context of the cultural tourism market.

A Bibliography of Australian Lighthouses – the People and the Places, (author unknown., nd, held by Australian National Maritime Museum at 623.8942/0994 B1B) lists many potentially interesting sources, particularly of lighthouse related social history.

Additional sources of collection level documentation include:

- Gojak, D, New South Wales Lightstations: an examination of their heritage values for addition to NPWS estate, NPWS draft report, 1992.
- Davies, P A, History of Lighthouses, TBA
- Brewis, CRW, Lighting of the East Coast of Australia, Cape Moreton to Gabo Island, Commonwealth of Australia, 1913.
- Instructions to Lightkeepers, Commonwealth Lighthouse Service, Department of Trade and Customs, Melbourne, 1917.

The best available source of visitor data is:


These documentary resources are adequate for this planning stage.

GRAPHIC

The design drawings, technical diagrams and maps in the above publications form an adequate basis for reproduction and/or commissioned artwork illustrating the collection level storyline. In particular, figure 2.1 in the South Solitary Island Conservation Plan (JRC Planning Services et al.) shows all NSW lighthouses.

IMAGES

a) Stills

Contemporary and period drawings and photographs of most sites and of notable characters associated with the development of the collection are to be found in Reid et al., above. The Service has extensive photographic records of most sites, held at its District Offices. The best of these are the work of professional photographers, often reproduced in postcard/poster format. An exception may be Cape Baily and an image of this light is suggested by the storyline.

Lighthouses are likely to be popular subjects for artists or, at least, to figure in paintings and drawings of coastal landscapes.

Retired lighthouse keepers and their descendants may be prime sources of photographs of the lightstation lifestyle.

b) Motion Images

There has been no consistent attempt by the Service to compile in-house film or video records of these sites.

There are no known films or videos of the NSW lights in operation or of interviews with the people associated with them.


The Australian National Maritime Museum lists two video recordings:

- The Light Brigade, David Berry (reporter), ABC-RV?, 1987 At ANMM video 623.8942994 LIG. Unreviewed.

The National Film and Sound Archive and the AHC are other likely sources of relevant material.

SOUND

There are no known recordings of oral histories relevant to NSW lighthouses.

Retired lighthouse keepers, for example, would be a valuable and evocative source of interviews.

Local historians may be able to identify other
sources in lighthouse communities.

Other relevant stakeholders would include historians and conservation architects with a particular appreciation of lighthouses.

It is probable that national and local radio interviews were broadcast during the “Do We Keep the Keepers” controversy that surrounded the destaffing of the lighthouses.

OBJECTS

With the exception of the original Montague Island lens array, now displayed and adequately interpreted at the Lighthouse Museum in Narooma, there are no items of movable heritage either available or required for collection level interpretation.

PEOPLE

A most significant resource for both collection level and site specific interpretation is the group of 8 retired lighthouse keepers now living in South West Rocks. The oldest is now 84. Most of them have kept a number of lights around the Australian coast. As second group of retired lighthouse keepers lives at Coffs Harbour. These men have tales to tell. They may also have family members and other connections whose oral histories about lighthouse life would be invaluable.

It may be that Aboriginal people would consent to comment on the traditional significance of relevant sites.

BUDGET

The service has not nominated any notional budget for the implementation of this strategy. (Indicative production costs for recommended interpretive media are given in Section 3.6, below).

A number of details remain to be worked out concerning the funding of both site-specific and collection-wide projects. Among them is the recommended establishment of a NPWS Lighthouses Reference Committee whose composition, powers and responsibilities have yet to be defined. Decisions on these matters should have high priority, if implementation is to proceed in an effective, coordinated and timely fashion.

TIME

The Service has not specified any deadline for the completion of planning or its implementation. The range of recommendations in this strategy could support a phased implementation (see 4.2, below).

Work should begin without delay to satisfy the additional requirements listed below and permit the completion of detailed planning (up to and including final design of all specified on-site signage and general print media), in this financial year.

Signage and print media production could be scheduled for early next financial year, with off site interpretive and spin-off promotional media production-ready (and funded) for say, October 1999.

This timing will facilitate testing and evaluation of the program, as well as familiarisation of the domestic visitors and operators with “new” experience (so they can promote it to the VFR/tourist influx in 2000).

2.7 Linkage: Interpretive Units and Messages

Linkage is the process of deciding where and when in the visitor experience a given message should be communicated. By linking the appropriate message to the proper place, at the logical point in the visit, we ensure that it will be most useful, interesting and understandable to the visitor.

An interpretive Unit is a place characterised by the unity of the interpretive messages that it is appropriate to communicate there. This may be determined by:

- unity of historic use (e.g., a house, a garden, a workshop), and/or
- unity of visitor use (e.g., a carpark, a viewpoint, a pathway)
- Each unit may comprise a number of Elements. Elements are the subdivisions of units into, e.g., rooms, plots, functional areas, etc.
- Elements may possess a number of Features. Features are the distinguishing, observable physical characteristics of, or
The visitor experience of a lighthouse may be conceptualised as a series of interpretive units in the form of concentric circles, with the lighthouse at the centre.

As we are planning a cultural tourism experience, we need to deliver our first messages where the visitors' awareness of the collection of lighthouses, or of an individual lighthouse begins, at some off-site point, distant from the lighthouse precinct itself.

OFF-SITE MOTIVATION

When planning an outing or a holiday, potential visitors are looking forward to an experience with certain characteristics. Whether they're coming from overseas, the nearest town or the National Park gateway, they have to want to get to a lighthouse in order to become our visitors. This is the time to offer them off-site interpretation of the Historic Lighthouses collection. This outermost circle is the realm of marketing and promotion and its implicit interpretive content.

DIRECTIONAL SIGNAGE

Once they have decided to make a lighthouse part of their experience and set out to go there, they are looking for the place. This second circle must support marketing and promotion with clear, consistent and attractive directions, both fixed (signage and maps) and portable (brochures and maps). The visitors have to be able to get there.

The lighthouses should be identified:

- on community kiosk and tourist information centre wall maps in NPWS lighthouse townsips
- on Tourism NSW maps in regional centres
- in NPWS State, Regional, District and collection-specific maps and literature
- in publicly and privately produced tourist literature and guidebooks.

Directional signage should be posted:

- on major highways/ freeways, one kilometre before exits giving access to routes to lighthouses and the highway exits
- at the outskirts of nearby communities
- at decision points on secondary roads leading towards the lighthouse
- at the start of and at decision points along lighthouse access roads.

IN-PARK ORIENTATION AND INTERPRETATION

As visitors arrive at the lighthouse precinct, we may think of them as looking in, towards the experience to come. Once within the boundaries of the precinct, they will be looking around, seeking to orient themselves to the precinct's layout, resources and significance. Next, as they explore the precinct, they will also begin looking out at the surrounding setting of land and sea, a process that, ideally, reaches its climax atop the tower itself, where this is possible, or, failing that, at other vantage points.

“Looking around” and “looking out” logically focus respectively on the particular elements and features of the individual precinct and its setting. These parts of the visitor experience will be the focus of the individual precinct and its setting. These parts of the visitor experience will be the focus of the individual lighthouse interpretation plans.

It is when they are “looking in” that visitors will be most receptive to messages, cues and information that promise, at least, to be of use in the next stage of the experience. This is the place for on-site interpretation of the Lighthouses collection.

The exact location of this “threshold” will vary from site to site and will be determined in consultation with site managers. (The exception would be South Solitary Island for which these messages should be delivered at the Damarals Point signal flag location, in conjunction with a pedestal mounted binocular and, perhaps, also at the Look at Me Now headland).

ON AND OFF SITE

Finally, visitors will be looking back on the experience, playing an important part in reinterpreting it to other potential visitors and, we hope, looking forward to visiting more of our lighthouses.

High quality literature, video, still images and other interpretation of (and memorabilia about) the collection should be available both on-site and elsewhere. This will equip our visitors not only to “look back” on a fulfilling experience of a particular place, but also to “look forward” to exploring the rest of the collection and plan future visits.
3.0 Media Planning: Selection Criteria And Performance Objectives

This selection of the Interpretation Strategy deals with the physical means (or, “media”) that should be used to convey the messages to the visitor. We are concerned here, not with their content, but rather with how the media should look, last and function, in order to get our messages across as clearly, attractively and cost effectively as possible.

3.1 Graphic Identity – All Media

A symbol or log should be developed for the collection, to be used in all interpretive and promotional media. It must be distinct from existing (or future) site-specific logos. It must be a visually arresting, strong, clear, sophisticated graphic image that reads well in two colours, both with and without the signature phrase, “Historic Lighthouses of New South Wales”. It should have a day version and a night version. It must be strong and attractive and, on its intrinsic merits, an “object of desire”.

3.2 On-Site Signage

On-site signage provides the most practical and cost efficient means of communicating interpretive messages at outdoor locations and anything more “high-tech” would not be appropriate (or viable) in the lighthouse precinct settings. (Media options for indoor and other locations are considered in Section 3.4, below).

Collection-level media at the principal visitor access point to each lighthouse precinct should be highly visible, distinctive and attractive in design.

Signage design will be generally guided by the NPWS Signage Manual as to its format and dimensions. The following criteria are additional to any existing graphic standards usually applied by the Service to functional or interpretive on-site signage.

CHARACTERISTICS OF ON-SITE SIGNAGE:

Physical
- Durable
- Waterproof
- Non-fading
- Low maintenance
- Secure from theft and vandalism
- Universally accessible – mountings (children/handicapped)
- Hardened viewing area in front of signage

Visual
- Identity: NPWS Lighthouses Collection Logo, and subtle stylistic differences identify this as distinct from, yet clearly related to site-specific signage
- Economy: avoid visual clutter (2 x Service standard 600mm x 450mm panels or equivalent should suffice)
- Clarity: short paragraphs with ample “negative space”, large, clear, serif fonts, flush left, ragged right
- Consistency: 3 point sizes for body text correspond to 3 levels of interpretation, icons denote major themes
- Colour: strong, clear colours – avoid brown, beige, pastels and natural steel/aluminium
- Illustrations: should be used whenever possible, should depict a person, thing, activity or function related to the text, captions should, whenever possible, replace (not duplicate) body copy, historical, if available; commissioned, if necessary

Content
- Identical at all locations
- Brevity: 85 word maximum for distinct sections of body text
- Accuracy: texts drawn verbatim or adapted from the Storyline
- Accessibility: avoid jargon, specialised vocabulary, bureaucratic tone, the passive voice an grammatical complexity, aim for the intelligent 12 year old (Flesch-Kincaid score between 6 and 8)
- Consistency: messages should be layered hierarchically according to level of interpretation (see 2.3, above)

AT THE OUTSKIRTS OF NEARBY COMMUNITIES AND AT DECISION POINTS ON SECONDARY ROADS LEADING TOWARDS THE Lighthouses

Format: rectangular, landscape, freestanding, appropriate end pointed
one line: Logo with signature at left and site name e.g. Green Cape Lighthouse
"collection" typeface

AT THE START OF AND AT DECISION POINTS ALONG LIGHTHOUSE ACCESS ROADS

Format: square, freestanding, appropriate end pointed
Logo only, no signature, no type

ON COMMUNITY KIOSK AND TOURIST INFORMATION CENTRE WALL MAPS IN LIGHTHOUSE TOWNSHIP AND ON TOURISM NSW MAPS IN REGIONAL CENTRES AND IN NPWS STATE, REGIONAL, DISTRICT AND COLLECTION-SPECIFIC MAPS AND LITERATURE

Format: Logo only locates lighthouse on map
Logo with lighthouse name on map key.
Service to produce and supply bromides/stickers and liaise at appropriate levels

IN PUBLICLY AND PRIVATELY PRODUCED TOURIST LITERATURE AND GUIDEBOOKS.

Service to identify media, supply Logo bromides, with and without signature and descriptive text.

3.3 Off-Site Signage and Other Print Media

Functional and directional signage for lighthouses should be consistent across the collection, as follows:

GENERAL

Colours: blue and white are colours traditionally associated with lighthouses and should be considered for directional signage. First, it should be determined whether any other existing functional signage has a prior claim on these colours that might create confusion.

ON MAJOR HIGHWAYS/ FREeways

- 1 km before exits giving access to routes to lighthouses
- at the exits

Format: rectangular, landscape, freestanding, on 2 posts, or incorporated into existing highway "next turnoff" and "exit" signage.
one line: Logo with signature at left and site name e.g. Green Cape Lighthouse
"collection" typeface, if freestanding, or RTA typeface, if incorporated

3.4 Additional Media Options

Clearly, there is more to be said about the Lighthouses of New South Wales than can be accommodated in the amount of introductory on-site signage that visitors will tolerate on arrival.

In theory, media options range from portable print media, through audio-visual, film and video presentations, high-tech interactive CD-ROMs and other electronic databases. Their feasibility depends on the resources available to produce them and the existence of appropriate physical
spaces for their presentation.

PRINT OPTIONS

Portable print media have the advantages of on and off-site use, timing and pace at the visitors’ discretion and promotional as well as interpretive value. Their written content will already exist in the form of the collection Storyline. Images and graphics are more sophisticated media. Initial design and production are relatively inexpensive, although this option carries an implicit commitment to periodic updating and reprinting. Flexibility of distribution is another important advantage.

A/V OPTIONS

Audio-visual presentations although a comparatively inexpensive way to deliver high quality images and sound, require dedicated venues, which may or may not be specified in each site’s interpretation plan and are unlikely to exist elsewhere.

FILM AND VIDEO OPTIONS

Film and video are relatively complex and expensive media to plan and produce. However, they can be shown virtually anywhere, as well as broadcast. Production is a one-off expense. Periodic replacement with duplicates is inexpensive and disk format videos are, to all intent and purposes, eternal. Once captured, these images and sounds can be reconfigured for use in a variety of media, for both promotional and interpretive purposes.

CD-ROM OPTIONS

Interactive CD-ROM is a flexible, increasingly familiar and popular way of presenting complex, multi-layered interpretive material. It is extremely complex and expensive to plan, program and produce. Interpretation of the Historic Lighthouses collection, alone, would not justify the costs of this medium. When, however, the Service produces a CD-ROM guide to its resources and programs, both the collection and its individual sites should be included. The writing and sound and image-capture required to produce other media will be readily available and adaptable to this format.

INTERNET OPTIONS

The Service already operates its own website on the Internet. At comparatively little expense, the appropriate promotional and directional print material, as well as the lighthouse collection Storyline could be made available on the website.

Information and interpretation for the individual lighthouses could be added as submenus to the collection film/ as they become available.

3.5 Media Recommendations

ON AND OFF-SITE SIGNAGE RECOMMENDATIONS

- Design and apply Logo, as per 3.1, above
- Plan, design, produce and install interpretive signage, as per 3.2, above
- Design, produce and install functional signage, as per 3.3, above

RESOURCE REQUIREMENT RECOMMENDATIONS

The following should be carried out as a single, high priority sub project, in order to avoid delay and duplication in media design and production:

- An inventory of existing still photographs, drawings and paintings, together with the relevant ownership and copyright information is required to support both collection-level interpretation (see 2.6, above) and individual site plans. This should be supplemented with new commissioned photography, as required.

- It is imperative that the Service identify, inventory and acquire the necessary rights to existing relevant motion footage and commission additional footage as required to support both on and off-site interpretation and promotion of its lighthouse resources in a variety of media formats.

- Further research is required to identify and inventory existing audio resources.

As a matter of urgency, the Service should commission a series of oral history interviews with retired lighthouse keepers and other identified people. “Oral” histories, in 1998, should be captured on film or Betacam, and still photographs/ slides taken of their subjects, whenever the subjects will permit it.

PRINT MEDIA RECOMMENDATIONS

The Lighthouses project should produce a distinctive family of interpretive and promotional literature, including:
Ends of the Earth: Historic Lighthouses of New South Wales:

A “2-colour, glossy” guide containing the complete collection Storyline, illustrated with appropriate graphics and images and outlining the history, features, activities and use options of the various sites.

Nine individual site brochures:

Two-colour site guides (perhaps with 4-colour covers) giving the storyline for the site and detailed information about its activities, events, use options (including accommodation booking and rates, where applicable) and natural setting. These would be outputs of the site-specific interpretation plans.

Other print media:

Design and graphic standards should be developed to guide use of the collection Logo and the production of collection and site-specific posters, post cards, and End of the Earth calendar and other retail and promotional items.

FILM AND VIDEO RECOMMENDATIONS

Planning and production of a short (say, 12 minute) video should be commissioned, based on the Ends of the Earth storyline and oral histories. This would be available for viewing on-site (as determined by individual site interpretation plans) and elsewhere, as well as possible promotional broadcast, retail sale and additional use throughout the NPWS system.

ELECTRONIC MEDIA RECOMMENDATIONS

Create and Ends of the Earth: Historic Lighthouses of New South Wales file on the NPWS website. Present illustrated promotional and directional material and the collection Storyline in this format. Add site-specific material as submenus, as it becomes available.

3.6 Indicative Production Costs

GRAPHIC IDENTITY

Design of Logo, as specified at 3.1 $2,500.00

OUTDOOR MEDIA

For costing purposes is estimated that the text and illustrations outlined could be effectively presented as two 600mm x 450mm panels in each location, totalling about twenty signs

Estimated graphic design costs, for final, camera-ready or digitised artwork for this material in this or similar format, $1,500.00

Estimated production costs, based on silk-screen on aluminium, over laminated with anti-vandalism finish and double-coated with clear protective finish, $12,000.00

Estimated mounting costs for 20 mounts at $125.00 each, $ 2,500.00

Total (exclusive of installation) $16,000.00

PRINT

Ends of the Earth: Historic Lighthouses of New South Wales

Estimated costs for planning, editing, design and production, to finished art on disk, $3,000.00

Printing costs would depend on the quantity of the run, $TBD

VIDEO

Research, planning, scripting, filming, editing, mixing, $20,000.00

RESOURCE REQUIREMENTS

Sub-project as outlined at 3.5.2, above, assuming total out-sourcing, $15,000.00

OFF-SITE SIGNAGE

Sub-project as outlined at 3.3, quantity survey required, $TBD

WEBSITE FILE

As recommended at 3.5, NPWS in-house $TBD

3.7 Personal Programs

Personal or face-to-face programs are interpretive visitor experiences delivered by people (e.g. staff, volunteers, and commercial operators) who have specialised knowledge of the resource. Guided tours, living history or role-play performances, demonstrations and special events are examples of personal programs.
Personal programs at each lighthouse precinct will be predominantly concerned with particulars of the place itself. At the same time, Rangers and commercial tour guides or others delivering these programs should have thorough familiarity with the collection Storyline. They should be prepared to relate the site and its features to the broader context of the collection, to answer questions about the collection and to direct visitors to sources of further information.
4.0
Project Definition – Implementing the Plan

The Lighthouse Reference Committee or its designated project manager should be responsible for implementing this Interpretation Strategy and for coordinating the preparation of Interpretation Plans for the individual sites.

4.1
Interpretation Policy

The provisions of this Interpretation Policy are additional to those of NPWS Field Service Policy 7.4, “Interpretation of Service Areas”.

The Lighthouse Reference Committee should formally review and adopt the following Interpretation Policy for both collection and site interpretation.

PREAMBLE

Interpretation defined:

Interpretation refers to programs that serve all visitors, potential visitors, and the public at large. It plans and provides equitable physical, intellectual, emotional and spiritual access to the cultural and ecological significance of places, objects, natural systems and living things. Through appropriate technologies and the responsible stimulation of ideas and opinions, it encourages their protection, preservation and appreciation by and for present and future generations.

Interpreting the NPWS mission:

The ability to identify and define interpretation planning requirements, to recruit, train and supervise staff and/or to select, brief and supervise contractors in the preparation and implementation of interpretation plans and programs is a core competence in the management and presentation of the Service’s lighthouses.

POLICIES

- Interpretation is a core responsibility of the NPWS, essential to the fulfilment of its management

- NPWS shall secure technical advice on major issues regarding interpretation.

- The interpretive potential of an element shall be a criterion in determining its conservation.

- Interpretation of the cultural significance of a structure, feature or artefact shall have high priority in determining its use and shall be provided irrespective of the other particulars of its use.

- The Interpretation Plan and the concurrence of the NPWS and the Conservation Management and Cultural Tourism Plan must sanction removal of intrusive elements.

- The primary emphasis for interpretation shall be historic evolution of the collection and its individual precincts, however, their significance in Aboriginal tradition and their ecological significance, as well as both planned and possible future developments are to be incorporated in the lighthouse interpretation programs.

- Interpretation of lighthouses shall address all the elements contained in the Statement of Cultural Significance for the collection as a whole and for its individual elements and features according to the relative importance established in the statement and the themes developed in its Interpretation Plan. The linkages between the history of the collection and each precinct and the physical evidence and relevant social issues are to be emphasised.

- Landscape elements and spaces within the precinct are integral to its cultural significance and its interpretation.

- The Service shall employ, conceive and develop interpretation techniques, which define best practice in heritage presentation.

- The NPWS Lighthouses Interpretation Plan and individual site Interpretation Plans shall be reviewed every five years, in the year following review of their Statements of Cultural Significance, to reflect evolving theory, new evidence and new interpretation techniques.

- Interpretation programs and practices shall be subject to ongoing evaluation and annual review to ensure that they fulfil the objectives of their Interpretation Plans as effectively as possible.

- The interpretation programs shall not be constrained by the boundaries of the
lighthouse precincts. They will target visitors, potential visitors and the public at large, through on-site programs, individual and collective marketing strategies and NPWS corporate communications. They will provide interpretation of selected places and objects, natural systems or living things both within the precincts and elsewhere, as appropriate.

- Interpretation programs shall establish the context of the collection and of each precinct in local, State, Australian and global history.

- All interpretation shall be based on the most accurate information and historiography available and their faithful representation in all media and personal programs. This basis will be clearly documented in the plan for each interpretation program.

4.2 Priorities for Implementation of this Strategy

The preparation of the detailed Interpretation Plan according to the concepts and criteria set out in the Strategy is the first priority. This activity should be undertaken in close consultation with the recommended Lighthouse Promotions Group (CM & CTP, Section 13.1), to ensure both efficient assembly and use of resources and a coherent public image. Tasks should be performed in the following order:

SHORT TERM, CONCURRENT PROJECTS (BEGIN IMMEDIATELY, COMPLETE WITHIN 1 YEAR)

- Resource requirement sub-project (as per 3.5.2, above)

- Prepare an inventory of existing still photographs, drawings and paintings, relating to the lighthouses, together with the relevant ownership and copyright information

- Commission any new photography required to illustrate the collection in all media

- Identify, inventory and acquire the necessary rights to existing relevant motion footage and commission additional footage as required to support both on and off-site interpretation and promotion of its lighthouse resources in a variety of media formats.

- Identify and inventory existing audio resources.

- Commission a series of oral history interviews with retired lighthouse keepers and other identified people (see 2.6). “Oral” histories, in 1998, should be captured on film or Betacam, and still photographs/slides taken of their subjects, whenever the subjects will permit it

- Commission writing of the collection Storyline.

- Commission design of the collection Logo

SHORT TERM, CONCURRENT PROJECTS (BEGIN ON COMPLETION OF “A”, ABOVE)

- Outdoor Signage (on-site and off-site)

- Preliminary development and design.

- Formative evaluation (see 4.4, below) and consultation with stakeholders

- Final design

- Ends of the Earth: Historic Lighthouses of New South Wales – the guidebook
  - writing/editing
  - design
  - formative evaluation (see 4.4, below)
  - revision, production and distribution

- Ends of the Earth: Historic Lighthouses of New South Wales – the interpretive/promotional video

- Commission planning and production of a quick minute video based on the “Ends of the Earth” storyline and oral histories

- Complete distribution, including our overseas Embassies, consulates and tourism offices, by June 2000

- Ends of the Earth: Historic Lighthouses of New South Wales – the NPWS website file

- Design and produce this file

- Program evaluation (see 4.4, below)

- Commission evaluation of the collection-level program within 2 months of its
becoming fully operational

- Other print media

- Develop design and graphic standards and licensing terms to guide use of the collection Logo on retail and promotional items

- Coordinate production of collection and site-specific posters, post cards, an *Ends of the Earth* calendar and other retail and promotional items, in consultation with the lighthouse Promotion Group

**MEDIUM TERM PROJECTS (2-5 YEARS)**

- Commission preparation of individual Lighthouse Interpretation Plans

- The priority for preparation of Interpretation Plans for these individual lighthouses should be: Smoky Cape, Cape Byron, Montague Island, Green Cape and Cape Bailey

- Produce site guides for individual lighthouses, as per individual site interpretation plans

- Undertake low key, interim planning and assembly of interpretive resources for Point Stephens, South Solitary Island, South Head and Barrenjoey, pending conservation, access, use and other decisions

- Commission the preparation of Interpretation Plans for Point Stephens, South Solitary Island, South Head and Barrenjoey, as conservation, access, use and other issues are resolved

- Program evaluation (see 4.4, below)

- Commission evaluation of the individual lighthouse interpretation programs within 3 months of their implementation

- Incorporate lighthouse information and interpretation into eventual NPWS CD-ROM

**LONG TERM PROJECTS (5 YEARS AND BEYOND)**

- Review the collection level Interpretation Plan, in the year following review of the CM&CTP and implement the recommendations of the review

- Review individual lighthouse Interpretation Plans in the year following review of their Statements of Cultural Significance and implement the recommendations of the review

4.3 **Briefing Requirements for Implementation of this Strategy**

The Lighthouse Reference Committee should develop a Project Brief or Briefs for the implementation of this Strategy. This could be done by means of separate Briefs covering planning (research and writing), design, production/ fabrication and installation/ distribution. This approach would require the Committee to be involved as the hands-on project manager at each stage. An alternative would be to outsource planning and project management for the whole lighthouse interpretation project, by means of a single Brief.

The Brief should include:

- Title: *Historic Lighthouses of New South Wales Interpretation Planning and Production*

- the background as given at 1.1 of this document

- the *Aim of the Project* stated as the *provision of all planning, research, writing, design and production services and materials required to implement the recommendations of the Interpretation Strategy portion of the NSW National Parks and Wildlife Service's NSW Lighthouses Conservation Management and Cultural Tourism Plan*

- specification of the physical locations for interpretation, as per 2.7, above

- a list of *Information Available*, namely, the resources discussed at 2.6 and this Strategy

- specification as to who will supervise work on the contract

- outline of work to be completed, namely: research and writing of the interpretive Storyline sourcing of all graphic, photographic and other illustrative material for interpretation and securing of necessary authorisations
consultation with Service site managers to determine final locations
final text and illustrations for all signs, labels, captions and other printed material
submission and evaluation of preliminary designs
final detailed design for all media
costing and timeframe for all recommended work
supervision of all media production and installation
submission of a final report on the work undertaken on the project

- specification of commencement date and target date for completion of any identified sub stages and of the whole project
- indication of the total project budget inclusive of all expenses and professional fees

4.4 Evaluation and Review

Best-practice interpretation is a demanding exercise. It requires considerable commitments of time and funds and produces results that are essential to meeting resource management objectives. We need to be able to ensure that those commitments are made prudently and to demonstrate that the desired results have in fact been achieved. We can meet both these requirements through program evaluation and review.

In order to be accountable, both to the Service and to the public, the Lighthouse Advisory Committee should undertake two stages of evaluation: formative and summative.

FORMATIVE EVALUATION

Formative evaluation is conducted during the design development process. It involves the production of media prototypes in order to assess their effectiveness with identified stakeholders and representative visitors.

At relatively little cost in time and money, formative evaluation provides the ounce of prevention, which can avert costly mistakes later on.

SUMMATIVE EVALUATION

Formative evaluation takes place after the interpretive experience is "up and running". It entails a survey of visitor opinions and reactions to the experience and the recording of observed visitor behaviour and interaction with the interpretive media.

Summative evaluation confirms the successes of the interpretive program in communicating the significance of the resource and in promoting appropriate visitor attitudes as well as highlighting any shortcomings which may require remediation as opportunities arise in the course of media maintenance, refurbishment or recapitalisation.

EVALUATION RECOMMENDATIONS

Formative evaluation of all recommended media in this Stately should be carried out following their preliminary design, as part of the final design process.

The entire visitor experience should be evaluated within three months of completion of installation and annually, thereafter.

REVIEW RECOMMENDATIONS

The NPWS Lighthouses Interpretation Plan should be reviewed every 5 years, in the year following review of the Conservation and Cultural Tourism Management Plan and amended to reflect any changes in the C & CTMP, as well as evolving theory, new evidence and new interpretation techniques.

Individual site Interpretation Plans should be reviewed every five years, in the year following review of their Statements of Cultural Significance and amended to reflect evolving theory, new evidence and new interpretation techniques.
5.0
Maintenance and Recapitalisation

5.1
Maintenance Recommendations

The finished artwork and master tapes for all media should be retained by the Service and appropriately stored.

An amount equal to five percent of actual media production costs should be budgeted annually for maintenance and refurbishment of interpretive media and updating/reprinting the *Ends of the Earth*, as required. All interpretive installations should be included in regularly scheduled maintenance inspections. Any damaged or deteriorated media should be repaired or replaced promptly as it will rapidly detract from the perceived value of the resource.

5.2
Recapitalisation Recommendations

At five yearly intervals, in the year following the review of the Statement of Cultural Significance, the Service should commission a review of this Strategy and of the detailed Interpretation Plan. An amount equal to the complete design and production cost of existing media, plus the appropriate CPI increments, should be budgeted for implementation of the recommendations of that review.