



# **NORTH HEAD QUARANTINE STATION CONSERVATION AND ADAPTIVE RE-USE PROPOSAL**

Clause 243 Report under Part 5 of the  
Environmental Planning and Assessment Act 1979  
Joint determination Report by the Determining Authorities:

- NSW Minister for the Environment
- NSW Heritage Council
- NSW Waterways Authority

## **VOLUME 1**

## ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979

### DECISION OF THE DETERMINING AUTHORITIES IN RELATION TO THE CONSERVATION AND ADAPTIVE RE-USE PROPOSAL FOR THE NORTH HEAD QUARANTINE STATION, MANLY

In assessing the proposal for the conservation and adaptive re-use of the North Head Quarantine Station in accordance with Part 5 of the *Environmental Planning and Assessment (EP&A) Act 1979* and the *EP&A Regulation 2000* we, being the determining authorities, have examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal.

1. In preparation of this Clause 243 report we have specifically examined and considered:
  - a) the environmental impact statement (EIS);
  - b) the species impact statement (SIS);
  - c) the Recovery Plan for the Endangered Population of Little Penguins (*Eudyptula minor*) at Manly;
  - d) the draft Recovery Plan for the Eastern Suburbs Banksia Scrub Endangered Ecological Community;
  - e) the Threat Abatement Plan for Predation by the Red Fox (*Vulpes vulpes*);
  - f) the Declaration of Critical Habitat for the Endangered Population of Little Penguins at Manly;
  - g) the objects and requirements of various statutes, including the:
    - ⌘ *Environmental Planning and Assessment Act 1979 (EP&A Act)*
    - ⌘ *National Parks and Wildlife (NPW) Act 1974*
    - ⌘ *Threatened Species Conservation Act 1995*
    - ⌘ *Heritage Act 1977*
    - ⌘ *Fisheries Management Act (FMA) 1994*
    - ⌘ *various maritime legislation, and*
    - ⌘ *Environmental Protection and Biodiversity Conservation Act 2000 (Commonwealth);*
  - h) the Sydney Harbour National Park Plan of Management (including the amendments adopted in November 2003);
  - i) the submissions made in respect of the proposed activity, including submissions made to the Commission of Inquiry (COI);
  - j) the effects of the proposed activity on the environment;
  - k) the principles of ecologically sustainable development;

- l) the co-proponent's proposals to mitigate any adverse effects of the activity on the environment, including information contained in their submissions to the COI;
  - m) the findings and recommendations of the COI conducted by Commissioner Simpson, and related advice provided by the then Minister for Planning under Section 114 of the *EP&A Act*;
  - n) the Preferred Activity Statement, and subsequent minor modifications to the activity and further information on specific aspects of the proposal, as prepared by the co-proponents; and
  - o) other pertinent matters referred to in the determination report.
2. We have also consulted with and obtained the necessary concurrences from relevant statutory authorities. These include:
- ⊄ the Director of Fisheries and Minister for Fisheries, in accordance with sections 197C and 197D of the *FMA*; and
  - ⊄ the Minister for the Environment<sup>1</sup>, as per section 112C of the *EP&A Act*.
3. In addition, we note that the following approvals have also been granted:
- ⊄ the Heritage Council has granted an approval under section 63 of the *Heritage Act 1977*; and
  - ⊄ the Minister for Infrastructure, Planning and Natural Resources has granted an approval in accordance with the requirements of Division 4, Part 5 of the *EP&A Act*.

Following consideration of the above, we have jointly decided to approve the activity subject to conditions. The reasons for the conditions are to:

- ⊄ further mitigate the potential environmental impacts of the activity;
- ⊄ ensure that adequate safeguards are in place to provide for long-term protection of the significance of the site;
- ⊄ ensure that appropriate and meaningful opportunities exist for on-going community participation in decisions that affect the site;
- ⊄ enable adaptive management of the activity to occur consistent with the practical intent of the precautionary principle;
- ⊄ ensure that there is a high level of oversight and scrutiny of the activity by the community and relevant NSW Government agencies, recognising the collective responsibility for stewardship of the site;

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<sup>1</sup> for the current proposal the Minister for the Environment has decided to act in the place of the Director-General of National Parks and Wildlife for the purposes of determining whether to grant threatened species concurrence, pursuant to Section 112C(2) of the *EP&A Act*.

- € respond to specific issues and concerns raised during the consultation process, the Commission of Inquiry and in the advice provided by the Minister for Planning in accordance with s.114 of the *EP&A Act*;
- € ensure an adequate level of compliance with the key provisions of the QSCMP and DACMP that balances the conservation and use objectives for the site; and
- € ensure that the undertaking of the activity does not preclude the future development of an integrated approach to the planning and management of North Head.

  
Reece McDougall

Dated\* 11/12/03.

**Director**

**NSW Heritage Office**

**(as the nominated delegate of the  
NSW Heritage Council)**



Matthew Taylor

Dated\* 16/12/03

**Chief Executive**

**Waterways Authority**



Bob Debus

Dated\* 23/12/2003

**Minister for the Environment**

\*The date of approval for the activity is taken to be the latest of the above dates.

## **EXPLANATORY NOTE ON REFERENCES TO NSW AUTHORITIES**

This final Clause 243 report was preceded by a draft report prepared by the determining authorities in late 2002. The draft report contained references to a number of NSW agencies, including the National Parks and Wildlife Service (NPWS) and Planning NSW (PNSW).

Since that time, and prior to completion of this final report, the NSW Government has made a number of structural changes to these agencies. As a result, the NPWS is now part of the Department of Environment and Conservation (DEC) and PNSW is now part of the Department of Infrastructure, Planning and Natural Resources (DIPNR). In addition, the former Minister for Planning (also previously referred to as the Minister for Urban Affairs and Planning) is now known as the Minister for Infrastructure, Planning and Natural Resources. These changes have not affected the roles and responsibilities of these agencies or the Minister with respect to the Quarantine Station proposal.

In some cases, this final report includes references to the respective agencies and the Minister by their new names. However, in a number of instances it has been judged more logical (and less likely to cause confusion) to continue with reference to the NPWS, rather than DEC, and to use the previous Ministerial titles.

## EXECUTIVE SUMMARY

This report provides a detailed assessment of the proposal for the conservation and adaptive re-use of the North Head Quarantine Station within Sydney Harbour National Park. The report has been prepared in accordance with the requirements of the *EP&A Act 1979* and *EP&A Regulation 2000* and considers all matters relevant to the environmental impacts of the proposal.

The NSW Minister for the Environment and Mawland Hotel Management Pty Ltd are the co-proponents for the activity. The co-proponents propose to adapt and re-use the Quarantine Station site for cultural tourism purposes and are seeking a 21-year planning approval. The proposed uses include: a visitor centre and museum; guided tours; a restaurant; accommodation; functions and conferences; and an environmental and cultural study centre. The proposal involves physical changes to the site, including the buildings and the landscape. It also includes an expansion in visitor numbers from the current 30,000 to approximately 100,000 per year.

The determining authorities for the proposal are: the Minister for the Environment; the NSW Heritage Council; and the NSW Waterways Authority. The proposal also triggers certain concurrence and consultation requirements of the *Threatened Species Conservation Act 1995* and *Fisheries Management Act 1994*. In addition, the Minister for Infrastructure, Planning and Natural Resources has an approval role for the activity in accordance with Division 4, Part 5 of the *EP&A Act*.

The determining authorities have prepared a joint determination report for the proposal to ensure that the expertise of all agencies may be combined to prepare a single comprehensive assessment. Similarly, one set of conditions of approval has been prepared to avoid duplication of effort and potential inconsistencies.

The assessment of the proposal has been a complex and challenging process. The Quarantine Station is of outstanding national significance and all elements and layers of the site have value. The assessment process has been guided by the provisions of the conservation management plans for the site (NPWS 2000b & 2001b) and the outcomes of the Commission of Inquiry (COI). It has also been informed by the public submissions, the majority of which raised objections to the proposal or various aspects of it. The volume of public submissions, either on the EIS or to the COI, are a reflection of the substantial level of community interest in future management and development of the site that has existed for many years.

The determining authorities have carefully, and in some detail, scrutinised the potential environmental impacts of the proposal. The determining authorities have concluded that the activity is generally consistent with the objectives of protecting the significance of the place and achieving improved access and interpretive outcomes. On the basis of this report, the determining authorities agree that there are no environmental matters that would prevent the activity proceeding, subject to conditions.

**The determining authorities have therefore agreed that the activity should be approved subject to conditions.** The conditions are included in the determination report and cover all aspects of the proposal. They also include all conditions that have arisen from the concurrence and approval processes of the relevant statutory authorities. The provision of one integrated set of conditions will avoid duplication of effort, potential inconsistencies and assist the co-proponent's compliance with the conditions.

The determining authorities consider that the conditions are necessary to achieve a balance between protecting the significance of the place, increasing accessibility and interpretation opportunities, and establishing a viable operation. Adaptive management is a feature of the conditions and the determining authorities strongly consider that the undertaking of the activity must be able to respond to new information and monitoring data as it becomes available. That may involve altering the way the activity is conducted, including placing further limits on site visitation.

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## ABBREVIATIONS

AC	Asbestos Cement
AEP	Archaeological Evidence Policy
CARP	Compatible Adaptive Re-Use
COI	Commission of Inquiry
CPP	Conservation Practices Policy
DACMP	Detailed Area Conservation Management Plans (NPWS 2001b)
DCP	Development Control Plan
DEC	Department of Environment and Conservation
DIPNR	Department of Infrastructure, Planning and Natural Resources <sup>2</sup>
DUAP	Department of Urban Affairs and Planning (now DIPNR)
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act
EPBC	Environmental Protection and Biodiversity Conservation Act
ESBS	Eastern Suburbs Banksia Scrub
ESD	Ecologically Sustainable Development
FMA	Fisheries Management Act
GCP	General Conservation Policy
LEP	Local Environmental Plan
LGA	Local Government Area
MLALC	Metropolitan Local Aboriginal Land Council
NPW Act	National Parks and Wildlife Act
NPWS	National Parks & Wildlife Service <sup>3</sup>

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<sup>2</sup> formerly Department of Urban Affairs and Planning and Planning NSW

PAS	Preferred Activity Statement
PoM	Plan of Management
PNSW	Planning NSW (now DIPNR)
QSAMP	Quarantine Station Archaeological Management Plan
QSCC	Quarantine Station Community Committee
QSCMP	North Head Quarantine Station Conservation Management Plan (NPWS 2000b)
QSRG	Quarantine Station Reference Group <sup>4</sup>
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
SREP	Sydney Regional Environmental Plan
TSC Act	Threatened Species Conservation Act

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<sup>3</sup> the NPWS is now a part of the Department of Environment and Conservation

<sup>4</sup> as recommended in the report of the Commission of Inquiry

# 1 INTRODUCTION

This section provides an overview of the determination report and the statutory and non-statutory matters that have been considered in its preparation.

## 1.1 Purpose of the report

The purpose of this report is to provide an assessment of the proposal for the conservation and adaptive re-use of the Quarantine Station site. Preparation of this report has been informed by: the EIS for the proposal; the issues raised in public submissions; the findings and recommendations of the Commission of Inquiry; advice provided by the then Minister for Planning; the submissions made by the co-proponents; the Preferred Activity Statement (PAS); and other matters pertinent to the potential environmental impact of the proposal.

The report has been prepared in accordance with Clause 243 of the *EP&A Regulation 2000*, which requires a determining authority to prepare a report on any activity for which an environmental impact statement (EIS) has been prepared. As there are three determining authorities for the proposal a joint determination report has been prepared, enabling the expertise of all the authorities to be combined as part of a single comprehensive assessment of the proposal.

This report has been prepared for approval of the determining authorities. In accordance with statutory requirements, prior to the determining authorities making a final decision on the proposal, the following statutory steps have been undertaken:

1. the Minister for the Environment has consulted with the Minister for Fisheries and Director, NSW Fisheries in accordance with Sections 197C and 197D of the *FMA* (Appendix 1). Consultation is required as part of the activity falls within or adjoins an aquatic reserve;
2. the other determining authorities (Heritage Council and Waterways Authority) have sought and obtained the concurrence of the Minister for Fisheries in accordance with Section 197D, and consulted with the Director, NSW Fisheries under Section 197D, of the *FMA* (Appendix 1). Concurrence and consultation are required as part of the activity falls within or adjoins an aquatic reserve;
3. the Heritage Council and Waterways Authority have sought and obtained the concurrence of the Minister for the Environment in accordance with Section 112C of the *EP&A Act* (Appendix 2). Concurrence is required as the determining authorities have concluded as part of this joint determination report that the activity has the potential to significantly affect the endangered Long-nosed Bandicoot and Little Penguin populations. The determining authorities have also noted that critical habitat has been declared for the Little Penguin. Under Section 112C an activity that is to be carried out on land that is critical habitat cannot be approved without the concurrence of the Director-General of NPWS (or in this case, the Minister for the Environment);

4. the NSW Heritage Council has determined to grant an approval under the provisions of the *Heritage Act 1977*<sup>5</sup> (Appendix 3); and
5. the Minister for the Environment has sought and obtained the approval of the Minister for Infrastructure, Planning and Natural Resources under Division 4, Part 5 of the *EP&A Act* (Appendix 4). This was required because the Minister for the Environment is both a determining authority and a co-proponent for the activity.

As all these steps have been satisfactorily concluded the determining authorities may make their final decision on whether to grant or refuse approval to the activity.

Unless otherwise stated, for the purposes of this report the term “EIS” refers to the EIS document, to the species impact statement (SIS) which has been prepared for the proposal and submitted as Appendix M of the EIS, as well as the various assessment reports, draft plans and other documents that are appendices to the EIS.

## **1.2 The Proposal**

Mawland Hotel Management Pty Ltd and the NSW Minister for the Environment are the co-proponents for the activity. The co-proponents propose to adapt and re-use the Quarantine Station site for cultural tourism purposes. The proposal involves both the use of the site and physical changes to parts of the site to accommodate and serve the intended uses. The uses include a visitor centre, museum, guided tours, a restaurant, accommodation, functions and conferences and an environmental and cultural study centre.

The Quarantine Station site is located within the Manly local government area (LGA). The majority of the area subject to the proposal is within Sydney Harbour National Park, with the exception of the wharf. The bed of the harbour (on which the wharf sits) is owned by the NSW Waterways Authority, and the wharf is the subject of a lease agreement between the NPWS and the Waterways Authority.

The proposal is discussed in more detail in Section 2 of this report, Chapter 5 of the EIS and in the PAS.

## **1.3 Statutory Provisions**

The proposal is subject to the provisions of a range of statutory instruments. The key legislative requirements are outlined below.

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<sup>5</sup> under the Act, the Heritage Council’s final approval must come before all others. Any approvals issued before this occurs are automatically void.

### 1.3.1 Environmental Planning and Assessment Act 1979

#### (a) Environmental impact statement

The proposal is an activity under Part 5 of the *EP&A Act*.

Under the provisions of Part 5 of the Act, a determining authority cannot approve an activity that is likely to significantly affect the environment or threatened species, populations and endangered communities or their habitats unless it has examined and considered an EIS for the proposal.

The EIS for the proposal has been prepared by Manidis Roberts Consultants acting on behalf of the co-proponents. In preparing the EIS, the co-proponents must comply with the provisions of the *EP&A Act* and *EP&A Regulation*, including requirements for the EIS issued by the Director-General of Planning NSW (formerly the Department of Urban Affairs and Planning). Requirements for the EIS were issued on 2 November 1998 and further advice on the status of the requirements was provided by PNSW on 27 April 2000 and 1 December 2000.

There are three determining authorities for the proposal:

- € **Minister for the Environment** – by virtue of a lease being required for the proposal under the *National Parks and Wildlife Act 1974*;
- € **NSW Heritage Council** – an approval is required under Section 60 of the *Heritage Act 1977* as the Quarantine Station is listed on the State Heritage Register; and
- € **Waterways Authority** – various approvals are required under the *Maritime Services Act 1935*; the *Management of Waters and Waterside Lands Regulations*; the *Commercial Vessels Act 1979*; and *Commercial Vessels (Permits) Regulations 1986*. Approvals may also be required under the *Rivers and Foreshores Improvement Act 1948*.

NSW Fisheries has advised that if certain conditions are met the proposal will not require an approval under Section 205 of the *Fisheries Management Act 1994* to disturb seagrasses. Those conditions have either already been met by the co-proponents or have been incorporated into the recommended conditions of approval. NSW Fisheries is therefore not a determining authority for the proposal. However, by virtue of the proposed activity occurring either partly in or adjacent to an aquatic reserve, certain consultation and concurrence requirements of the *FMA* apply (Sections 197C and 197D).

#### (b) Approval from the Minister for Infrastructure, Planning and Natural Resources

As the Minister for the Environment is both a determining authority and a co-proponent, the proposal requires the approval of the Minister for Infrastructure, Planning and Natural Resources under Division 4, Part 5 of the *EP&A Act*. The Minister for the Environment sought approval from the Minister for Infrastructure, Planning and Natural Resources on 16 April 2003. The Minister for Infrastructure, Planning and Natural Resources granted approval on 2 June 2003 (Appendix 4).

(c) Nominated determining authority

The Minister for the Environment was appointed by the then Minister for Urban Affairs and Planning as the nominated determining authority for this project in accordance with Section 110A of the *EP&A Act*. The NPWS (now DEC) has acted on behalf of the Minister to fulfil the functions of the nominated determining authority.

(d) Commission of Inquiry

A Commission of Inquiry (COI) into the proposal was established by the then Minister for Urban Affairs and Planning under Section 119 of the *EP&A Act*. The Inquiry examined all environmental aspects of the proposal and was undertaken by Commissioner Simpson with assistance from Mr John McNerney and Mr Stephen Davies.

Submissions to the COI were invited between 8 October 2001 and 16 January 2002, and the public sitting days were held from 11 February 2002 to 20 February 2002. Submissions in reply were heard by the Commissioner on 26-27 March 2002. Copies of submissions received on the EIS were forwarded to the COI, unless otherwise requested by the submission author. The Commission's report was released in July 2002.

The Commission's report is wide-ranging and includes a large and diverse number of recommendations. The Minister for Planning also provided advice regarding the report to the determining authorities in accordance with section 114 of the *EP&A Act* (Appendix 5).

The Commission's report and the advice provided by the Minister for Planning have been considered in detail in the preparation of this report. The determining authorities detailed examination of the specific environmental issues raised by the Commission and the Minister for Planning is provided in Section 4 of this report. Project management issues identified by the Commission and Minister are then discussed in Section 5.

(e) State Environmental Planning Policies (SEPP)

Two state environmental planning policies are relevant to the area and the proposal.

€ **State Environmental Planning Policy No.4 – Development Without Consent**

There are two elements of SEPP No.4 that are usually relevant to the assessment of any activity proposed on lands reserved under the *National Parks and Wildlife (NPW) Act 1974*:

- € clause 11A of the SEPP has the effect of removing any requirement to obtain development consent under Part 4 of the *EP&A Act*. On-park activities are usually then assessed under Part 5 of the Act; and



- ⌘ where consent is not required by virtue of the SEPP, Clause 11A requires that consultation occur with the relevant local council regarding any “prescribed development”<sup>6</sup> proposals.

In the case of the current proposal, SEPP No.4 therefore obviates the need for any approval from Manly Council that may be required under the Manly LEP 1988 (see below). However, as the proposal meets the definition of prescribed development under SEPP No.4, consultations were undertaken with Manly Council.

Issues raised by Manly Council during the consultation process are discussed in Section 3 and Appendix 9 of this report.

⌘ **State Environmental Planning Policy No.56 – Sydney Harbour Foreshores and Tributaries**

SEPP No.56 aims to coordinate the planning and development of land comprising the foreshores of Sydney Harbour and its tributaries. The SEPP does not apply to the proposal by way of clauses 4(3) and 8(2), however the aims and guiding principles of the SEPP have been considered in the assessment of the proposal.

(f) Regional Environmental Plans (REP)

⌘ **Sydney Regional Environmental Plan No.23 – Sydney and Middle Harbours**

SREP No.23 establishes the framework for the planning, development and management of the harbour area. The development control provisions of the SREP do not apply to the proposal by way of clauses 15, 19 and 22(4), however the assessment of the activity has considered the aims and provisions of SREP No.23.

In addition, although the development controls are not applicable, the proposal must still be consistent with the land-use zoning provisions specified in SREP No.23. Under SREP No.23, the waterway adjoining the Quarantine Station (which includes the wharf) is zoned W3 – Environmental Protection. Public water transport facilities (structures that will be used primarily in connection with transporting the public by water) are permissible within this zone.

The SREP also details certain consultation provisions for activities that do not require development consent. While not all of these strictly apply to the current proposal, consultation has been undertaken by the NPWS with the relevant agencies as a precautionary measure. The organisations that have been consulted are: the Foreshores and Waterways Planning and Development Advisory Committee (clause 13B); Sydney Water (clause 13B);

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<sup>6</sup> “Prescribed development” is development that is likely to generate traffic that strains the capacity of the local road system or otherwise adversely affect traffic movements, or significantly affect other land in the locality.

and the Heritage Council (clause 26). The outcomes of those consultations are discussed in Section 3 of this report.

#### € **Development Control Plan for SREP No.22 and No.23**

The DCP contains detailed guidelines for development control for areas covered by SREP No.23. In summary, the aims of the DCP are to: protect ecological communities, protect scenic quality; provide siting and design principles for new development; and identify potential foreshore access locations.

The provisions of the DCP have been considered in preparing this report.

#### (g) Local Environmental Plans (LEP)

##### € **Manly Local Environmental Plan 1988**

Manly LEP zones all of Sydney Harbour National Park, including the Quarantine Station, as Zone No.8 – National Park Zone. Under this zoning, no uses require development consent and the only permissible uses are those authorised by the *NPW Act*.

The LEP also identifies the Quarantine Station site, and some particular features of the site as items of the environmental heritage. Under the LEP, development consent is required for a range of works with respect to items of environmental heritage.

In addition, the LEP identifies all of North Head as a Foreshore Scenic Protection Area (FSPA). Under clause 17 of the LEP, development consent cannot be granted unless the council is satisfied that the development will not have a detrimental effect on the amenity of the FSPA.

Although no approval is required under the LEP by virtue of the provisions of SEPP No.4 (above), the assessment of the proposal has considered the aims, policies and strategies of the Manly LEP.

#### (h) Planning circulars and section 117 Directions

There are no planning circulars or section 117 Directions of specific relevance to the proposal.

### **1.3.2 Threatened Species Conservation Act 1995**

#### (a) Species impact statement

Under Part 5 of the *EP&A Act*, a determining authority cannot approve an activity that is likely to significantly affect threatened species, populations or ecological communities, or their habitats unless a SIS, or an EIS containing a SIS, has been prepared.

Application of Section 5A of the *EP&A Act* concluded that the proposal could potentially have a significant effect on threatened species, populations or ecological communities. Requirements for the SIS were issued by the Director-General of NPWS on 14 July 2000. The SIS was prepared by Gunninah Environmental Consultants on behalf of the co-proponents, in

accordance with the requirements of Division 2, Part 6 of the *TSC Act*. The SIS and EIS were jointly exhibited.

Following an assessment of the SIS and consideration of relevant recovery plans and threat abatement plans (refer below), the determining authorities concluded that there was still the potential that the activity would be likely to significantly affect the endangered Long-nosed Bandicoot and Little Penguin populations. In addition, it was noted that critical habitat for the Little Penguin was likely to be declared (this has since occurred). These matters are discussed further in Section 4 of this report.

On this basis, and as noted above, two of the determining authorities (Heritage Council and Waterways Authority) sought and obtained the concurrence of the Minister for the Environment in accordance with section 112C of the *EP&A Act* (Appendix 2).

(b) Endangered Population of Little Penguins (*Eudyptula minor*) at Manly, Recovery Plan (NPWS 2000a)

The recovery plan was adopted in October 2000 and outlines management actions to be taken for the conservation of the Little Penguin population. Actions undertaken by Government agencies must be consistent with the provisions of the recovery plan.

The recovery plan requires that development proposals be assessed in accordance with the plan and the environmental impact assessment guidelines provided. The plan also states that any development approved on land in the vicinity of the population must be sensitive to the population, given the knowledge of current threats.

The recovery plan has been considered in the assessment of the proposal and preparation of this report.

(c) Critical Habitat Identification Report and Declaration

The Critical Habitat Identification Report for the Endangered Population of Little Penguins at Manly was exhibited from 19 April to 14 June 2002 (NPWS, 2002a). Critical habitat for the population was subsequently declared in December 2002. The declaration was further updated in June 2003 following amendment to the *Threatened Species Conservation Regulation 2002*.

Potential impacts on the critical habitat have been considered in the assessment of the Quarantine Station proposal. In addition, as noted above, concurrence from the Minister for the Environment has been obtained with respect to threatened species issues.

(d) Eastern Suburbs Banksia Scrub (ESBS) draft Recovery Plan (NPWS 2003a)

The draft recovery plan was exhibited in March 2003 and is expected to be submitted for final adoption by the end of 2003. As with the Little Penguin Recovery Plan, the draft ESBS Recovery Plan proposes a number of objectives, actions and performance criteria.

The draft Plan notes that the ability to “recover” ESBS is limited given that so little of the community still exists (138 ha). Nonetheless, successful management of the remaining ESBS, through habitat protection and restoration, is considered achievable.

The draft Plan seeks to ensure that ESBS remnants are not destroyed as a consequence of habitat loss. It also proposes that any approvals granted in the vicinity of ESBS are sensitive to the community and that agencies will undertake active management of ESBS on lands under their responsibility. North Head is identified as a priority site for active management.

The draft Recovery Plan for ESBS has been considered in the preparation of this determination report.

(e) Threat Abatement Plan for Predation by the Red Fox (*Vulpes vulpes*) (NPWS 2001a)

The threat abatement plan was adopted in December 2001, and outlines the strategy for fox control to conserve native fauna in NSW. The Plan identifies the Long-nosed Bandicoot as a priority threatened species for fox control. In addition, the North Head area (with Long-nosed Bandicoots as a target species) is listed as a high priority site for fox control.

The actions included in the Plan have been considered in the assessment of the Quarantine Station proposal.

### **1.3.3 Heritage Act 1977**

The Quarantine Station is listed on the State Heritage Register established under the Act. An approval is required under the Act for those items listed on the State Heritage Register prior to the carrying out of any development in relation to the land on which the building, work or relic is situated.

A Section 60 application was submitted by the co-proponents to the NSW Heritage Council and exhibited concurrently with the EIS. An application to modify the Section 60 application was also submitted to address the proposed reconstruction of the fire-destroyed buildings H1 and P22. The proposed modification was advertised from 22 October to 15 November 2002.

The application to modify the Section 60 application only addressed the concept of reconstructing H1 and P22 and the proposed final uses for these buildings. The detailed design plans will still require a separate Section 60 application to the Heritage Council. This will occur following a decision on the current proposal.

The Heritage Council has assessed the Section 60 application, and proposed modification, and the potential impact of the proposal on the heritage significance of the Quarantine Station. The Heritage Council has also considered a separate report on the Section 60 application prepared by the Heritage Office. As indicated earlier, following these assessments, the Heritage Council approved the application in February 2003.

As part of its assessment of the proposal the Heritage Council also considered whether the final activity described in the PAS, and for which Section 60 approval was sought, was substantially the same as the original proposal.

The Heritage Council concluded that the amendments made to the proposal by the co-proponents following the receipt of submissions and the COI process did not significantly alter the nature or type of the proposal, but reduced its scope and potential impact. The exception to this were the two proposed reconstructions, which were not envisaged as part of the original advertised proposal but, as noted above, were separately exhibited for public comment. On this basis, the Heritage Council concluded that the proposal did not require re-exhibition under the provisions of the *Heritage Act*.

The conditions of approval included in this determination report cover all aspects of the proposal, including those applied by the Heritage Council.

#### **1.3.4 National Parks and Wildlife Act 1974**

The Quarantine Station site is within Sydney Harbour National Park and is managed under the provisions of the *NPW Act*.

Any proposed activity on lands reserved or dedicated under the *NPW Act* must be permissible under the Act, as well as the *EP&A Act* and any other relevant legislation. At the broadest level, the activities authorised by the *NPW Act* are those that are consistent with the objects of the Act. The objects include:

- ∄ the conservation of nature, including habitat, biodiversity, landforms, etc;
- ∄ the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, including, but not limited to:
  - places, objects and features of significance to Aboriginal people, and
  - places of social value to the people of NSW, and
  - places of historic, architectural or scientific significance,
- ∄ fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation; and
- ∄ providing for the management of land reserved under the Act in accordance with the management principles applicable for each type of reservation.

The objects of the Act are to be achieved by applying the principles of ecologically sustainable development. The Act also requires the Minister for the Environment, the Director-General and the NPWS in general to give effect to these objects and the public interest in the protection of the values for which land is reserved under the Act, and the appropriate management of such lands.

At a more specific level, the uses of any given reserve will be guided by the management principles for each type of reserve. Section 30E of the Act, for example, specifies the management principles that are to apply to lands reserved as a “national park” (as opposed to a nature reserve, regional park, etc). In brief, the principles include:

- € to identify, protect and conserve areas containing...natural or cultural features...that provide opportunities for public appreciation and inspiration and sustainable visitor use and enjoyment...;
- € the conservation of biodiversity;
- € the conservation of places, objects, features and landscapes of cultural value;
- € the promotion of public appreciation and understanding of natural and cultural values;
- € provision for sustainable visitor use and enjoyment that is compatible with the conservation of natural and cultural values; and
- € provision for the sustainable use (including adaptive re-use) of buildings having regard to conservation values.

The following provisions of the *NPW Act* also guide the identification of appropriate and permissible uses.

**Table 1 - NPW Act provisions**

SECTION	PROVISIONS
<b>8</b>	<ul style="list-style-type: none"> <li>€ The Director-General of National Parks and Wildlife shall promote educational activities, arrange for the carrying out of management and maintenance works, and undertake research as considered necessary in relation to each national park. The Act also provides specific powers with respect to the protection of fauna and flora, as this relates to education, protective works and scientific research.</li> <li>€ Section 8(10) states that in exercising and discharging the various duties imposed by the <i>NPW Act</i> or any other Act, the Director-General is subject to the control and direction of the Minister.</li> </ul>
<b>12</b>	<ul style="list-style-type: none"> <li>€ Authorises the NPWS to carry out works and activities as the Minister may direct for the: conservation and protection of reserved lands, wildlife, Aboriginal objects, buildings and places of non-Aboriginal cultural value: for the provision of facilities and opportunities for sustainable visitor use and enjoyment; etc.</li> </ul>
<b>72 &amp; 72AA</b>	<ul style="list-style-type: none"> <li>€ Requires a plan of management to be prepared for each national park in accordance with a range of stated objectives.</li> </ul>
<b>151B</b>	<ul style="list-style-type: none"> <li>€ Allows the Minister to grant leases of land within a reserve to enable the adaptive re-use of an existing building or structure. Leases may only be granted if the purposes for which the lease is to be granted are identified in the PoM as being permissible</li> <li>€ Also requires that a proposal to lease land be publicly exhibited.</li> </ul>

The determining authorities note that the provisions of section 151B, regarding the granting of leases to enable the adaptive re-use of buildings, are a

relatively recent amendment to the *NPW Act*. The purposes for which leases may be granted under this section include:

- € educational facilities for natural heritage, cultural heritage, park or fire management;
- € research facilities for natural and cultural heritage;
- € retail outlets related to the needs of the area;
- € food outlets;
- € cultural institutions;
- € visitor and tourist accommodation;
- € facilities for conferences and functions;
- € sporting facilities;
- € visitor and tourist facilities and amenities;
- € facilities in relation to Aboriginal culture and Aboriginal cultural activities;  
and
- € any other purpose prescribed by the regulations.

As indicated in the table above, it is also noted that the *NPW Act* requires that leases associated with the adaptive re-use of existing buildings may only be granted if the purposes for which the lease is to be granted are identified as being permissible in the relevant plan of management. Amendments to the Sydney Harbour National Park Plan of Management have recently been adopted to address this requirement and are discussed further below.

In addition, s.151B also requires that proposals to lease land are made available for public comment. At this point in time, the determining authorities understand that this process is yet to occur.

(a) Sydney Harbour National Park Plan of Management (NPWS 1998)

The Sydney Harbour National Park Plan of Management (PoM) is a statutory document, adopted by the then Minister for the Environment in October 1998 following public exhibition. All activities proposed on land reserved under the *NPW Act* must be consistent with any adopted plan of management for the particular area.

The PoM establishes the overall management framework and details the specific objectives, strategy and management policies that will apply to the national park. The key provisions relevant to the proposal and a consideration of permissibility under the *NPW Act* are outlined below:

#### € **Specific objectives for Sydney Harbour National Park**

These include: conservation of historic structures and their settings; interpretation of historic places that illustrate important aspects of Australia's history, such as immigration and quarantine; and promotion of the park as an important and readily accessible recreation and education resource for metropolitan Sydney.

#### € **Overall strategy**

The overall strategy for the park is the protection and, where necessary, restoration of the park's natural vegetation, and the maintenance and adaptive re-use of important historic places. The PoM notes that private sector involvement will be encouraged to provide opportunities for public use and the conservation of structures.

In addition, the PoM gives emphasis to the interpretation and use of the Quarantine Station in the specific strategies for North Head.

#### € **Management policies and actions**

The PoM details a large number of policies and actions relevant to the future management and use of the Quarantine Station. These fall under several sections of the PoM and the key provisions are outlined in Appendix 6.

#### (b) Amendments to the Sydney Harbour National Park Plan of Management

Proposed amendments to the Plan of Management were exhibited in mid-2003 (NPWS, 2003b). As indicated above, the primary purpose of the amendments was to include provisions in the Plan regarding the adaptive re-use of existing buildings and structures within Sydney Harbour National Park. This includes the adaptive re-use of buildings at the Quarantine Station, which are covered by the current proposal.

The exhibition for the draft amendments closed in August 2003. Following a review of submissions and the recommendations of the Sydney Region Advisory Committee and the National Parks and Wildlife Advisory Council, the Minister for the Environment adopted the amendments on 17 November 2003.

As a result of the amendments, the PoM now includes a new section that clearly indicates that adaptive re-use of buildings and structures is permissible provided it is carried out in a sustainable manner, is consistent with conservation values and is compatible with the retention of cultural significance. The PoM also requires that any proposals to issue leases under s.151B be subject to an environmental impact assessment as per the provisions of the *EP&A Act*. The list of permissible purposes for the Quarantine Station site mirror the uses listed in s.151B of the *NPW Act*.

#### (c) Conclusion by determining authorities regarding permissibility

In considering the permissibility of the activity under the *NPW Act* the proposal can be considered at two levels: as a whole; and as a number of individual elements.



Taking into account the provisions of the *NPW Act* it is considered that the activity as a whole is generally an appropriate and permissible use for the national park. Its primary purposes are clearly consistent with the objects of the Act, which emphasise both the conservation of cultural and natural values and the promotion of public understanding and enjoyment. As discussed later, the principles of ESD have been applied in all aspects of the assessment of the activity.

The activity is also consistent with the management principles for national parks and the provisions of the PoM. The PoM includes specific policies and actions that clearly envisage an expansion of opportunities for public access and interpretation at the site, including uses such as accommodation and conferences. The potential role of the private sector (including the granting of a lease to enable adaptive re-use) in this process and in generating revenue for conservation activities is also highlighted. The determining authorities consider that application of appropriate conditions of approval will give effect to the public interest in protecting the values of the site.

Adaptive re-use of the site that is compatible with natural and cultural heritage values is also clearly provided for by the *NPW Act*. As noted above, provisions in this regard have been included in recent amendments to the PoM.

Similarly, it is also concluded that the various individual elements of the activity and the uses proposed are generally permissible. These elements include: the restaurant; accommodation facilities; visitor centre and museum; guided tours; environmental and cultural study centre; functions and events; and related operations. These uses are consistent with the purposes identified in the adaptive re-use provisions of the *NPW Act* and the PoM.

As noted earlier, the lease for the site cannot be entered into until the PoM has been revised to include relevant adaptive re-use provisions. In addition, the *NPW Act* requires that the proposal to lease be exhibited for public comment. At this stage, the determining authorities understand that while the amendments to the PoM have been made the exhibition of the lease proposal is yet to occur.

In conclusion, the determining authorities are of the view that the activity is permissible under the provisions of the *NPW Act*, subject to fulfilment of all the requirements of s.151B regarding the granting of leases for the adaptive re-use of buildings and structures. On this basis, the determining authorities have incorporated an additional requirement into the conditions of approval for the activity that have been issued by the Heritage Council and the Minister for Infrastructure, Planning and Natural Resources [condition 9(a)]. This condition stipulates that the activity may not commence until the relevant provisions of s.151B of the *NPW Act* have been fulfilled.

The determining authorities consider that this additional condition is consistent with the approvals issued by the Heritage Council and the Minister and in no way detracts or alters the intent of those existing approvals. Indeed, the new condition simply adds a further prerequisite for commencement of the activity in addition to those already applied by these authorities. Nevertheless, the determining authorities have consulted with, and obtained the agreement of, DIPNR regarding the proposed new condition.

### 1.3.5 Maritime and related legislation

Approvals are required from the NSW Waterways Authority under the:

- € *Maritime Services Act 1935*;
- € *Management of Waters and Waterside Lands Regulations*;
- € *Commercial Vessels Act 1979*;
- € *Commercial Vessels (Permits) Regulations 1986 Act and Regulations*; and
- € possibly under the *Rivers and Foreshores Improvement Act 1948*.

### 1.3.6 Fisheries Management Act (FMA) 1994

#### (a) Threatened Species

As noted above, NSW Fisheries has concluded that it is not a determining authority for the proposal, so long as several conditions are met. One of those conditions was the undertaking of an assessment of potential impacts on threatened species in accordance with Part 7A of the *FMA Act*. An assessment of the potential impact of the proposal on Black Rock Cod, Green Sawfish and Grey Nurse Shark has been conducted by the co-proponents and NSW Fisheries has advised that it supports the conclusions of that assessment.

Other recommended conditions proposed by NSW Fisheries have been included in the conditions of approval, where appropriate.

#### (b) North Harbour Aquatic Reserve

The North Harbour Aquatic Reserve was declared in 1982. It covers the waters below mean high water mark, including the water area in the immediate proximity of the Quarantine Station site. There is currently no plan of management for the reserve, although it is understood that one is in preparation.

The *FMA* (ss. 197C & 197D) requires that a determining authority consider certain matters with respect to the protection and management of the aquatic reserve before granting an approval under Part 5 of the *EP&A Act*.

In addition, all the foreshores of Sydney Harbour from the mean high water mark to ten metres seaward beyond mean low water are part of an intertidal protected area. Restrictions apply to certain activities within this zone, such as the collection of intertidal animals and fishing bag limits.

Section 4.3 of this report concludes that the proposal will not result in adverse impacts on the aquatic reserve or the intertidal protected area. Nevertheless, in accordance with the provisions of Sections 197C and 197D of the *FMA* the following steps have occurred:

- € the Minister for the Environment (as a co-proponent and determining authority) has consulted with the Minister for Fisheries and the Director of Fisheries (Appendix 1); and

the Heritage Council and the Waterways Authority (as determining authorities) have sought and obtained the concurrence of the Minister for Fisheries and consulted with the Director of Fisheries (Appendix 1).

(c) Habitat Protection Plans

Public authorities must have regard to any Fish Habitat Protection Plan that is relevant to the exercise of their functions.

Fish Habitat Protection Plan No.2 – Seagrasses (NSW Fisheries 1997) is relevant to the assessment of the proposal with respect to the proposed use of the wharf for water access to the site. The application of the Plan is considered in Section 4.3 of this report.

(d) Policy and Guidelines – Aquatic Habitat Management and Fish Conservation (NSW Fisheries 1999)

Although not a statutory document, the Policy and Guidelines provide the basis for assessing the impacts of proposals on the aquatic environment in accordance with the provisions of the *FMA*. Assessment of the proposal has considered the Policy and Guidelines, as discussed in Section 4.3.

**1.3.7 Rural Fires Act 1997**

The NPWS is a fire fighting authority under the *Rural Fires Act* and is responsible for the management of fire on lands under its control. Fire management actions undertaken by the NPWS are guided by relevant fire management plans.

(a) Draft Fire Management Plan, Sydney Harbour and Botany Bay (La Perouse Precinct) National Parks (NPWS, 2002b)

Under the draft Plan, the Quarantine Station is identified as a distinct Fire Management Area. The site is proposed to be managed as an Asset Protection Zone and a Heritage Area Management Zone, where the primary objectives are to protect the Quarantine Station and to maintain natural and cultural assets.

(b) Manly-Mosman Bush Fire Risk Management Plan (Manly-Mosman Bush Fire Management Committee, 2002)

This Plan identifies the level of bush fire risk across the Manly and Mosman LGAs and establishes strategies that the responsible land managers will implement to manage the bush fire risks identified. The Plan identifies major and moderate risk strategies applicable to the Quarantine Station site.

(c) Manly-Mosman District Bushfire Management Plan Operations (Manly-Mosman Bushfire Management Committee, 2001)

The Plan deals with arrangements and procedures for fire detection, suppression and management in the event of coordinating fire activities.

The requirements of the above Plans have been considered in assessing this proposal.

### **1.3.8 Commonwealth Environmental Protection and Biodiversity Conservation (EPBC) Act 2000**

The *EPBC Act* is administered by Environment Australia. The Act requires that an action that is likely to have a significant impact on a matter of national environmental significance be subject to assessment and approval by the Commonwealth. The proposed lease area contains two threatened species and one ecological community listed under the schedules of the *EPBC Act*: *Eucalyptus camfieldii*; *Acacia terminalis*; and Eastern Suburbs Banksia Scrub (ESBS).

The proposed activity was referred to Environment Australia by the co-proponents in January 2002. Environment Australia determined that the activity was not a controlled action for the purposes of the *EPBC Act* and no approval was therefore required.

### **1.4 Non-statutory background**

A number of policies, guidelines, plans and other matters have been considered in assessing the proposal. While these documents have no formal statutory basis, they provide an important mechanism for giving practical effect to the provisions of particular statutes.

A list of the documents that have been considered in the assessment of the proposal is provided below. This list is not intended to be comprehensive. A brief summary of the relevant features of each document is provided in Appendix 7.

#### **(a) Cultural heritage**

- € Sydney Harbour National Park North Head Quarantine Station Conservation Management Plan (QSCMP) (NPWS 2000b)
- € Sydney Harbour National Park North Head Quarantine Station Detailed Area Conservation Management Plans (DACMP) (NPWS 2001b)
- € Register of the National Estate listing
- € National Trust listing
- € The community approach to recording Aboriginal heritage: a case study at North Head, Sydney Harbour National Park, NSW (Darwala-Lia, 2001)

#### **(b) General planning**

- € Draft North Head Planning Strategy (Clouston 1996)
- € Draft paper – “Car-rang-gel – A 21<sup>st</sup> Century Sanctuary for North Head” (Sydney Harbour Federation Trust 2003a)
- € Sharing Sydney Harbour – Regional Action Plan (DUAP 2000)
- € Reflections on a Maritime City & Sites Unseen (Interim Sydney Harbour Federation Trust, 2000 & 2001)

- € Draft and Final Plan for the future of the Sydney Harbour Federation Trust Lands (Sydney Harbour Federation Trust, 2002 and 2003b)
- € Spectacle Island Declaration & Interim Statement

(c) Expert reports

Assessment of the proposal has also been informed by work undertaken by specialist consultants engaged to review key aspects of the project. The reports commissioned to assist the determining authorities are listed below.

**Long-nosed Bandicoots**

- € Dr P Banks (2000) *Population viability analysis for the Long-nosed Bandicoot population at North Head, NSW: modeling the effects of increased traffic flow on adult mortality.*

**Draft EIS and SIS**

- € Dr R Bali<sup>7</sup> (2000) *Independent Review – Impact Amelioration & Environmental Management for North Head Quarantine Station Conservation and Adaptive Re-Use SIS.*
- € Gillespie Economics (2000) – *Review of the Economic and Social Impact Assessments in the Quarantine Station Draft Environmental Impact Statement.*
- € Otto Cserhami (2000) – *Review of the Environmental Impact Statement for the North Head Quarantine Station.*
- € PPK (2000) – *Overview of Quarantine Station Environmental Impact Statement – Traffic and Transport Issues.*

**Final EIS (as exhibited)**

- € Gillespie Economics (2001) *Quarantine Station Environmental Impact Statement – Assessment of Economic and Social Impacts.*
- € PPK (2001) *Review of Quarantine Station Environmental Impact Statement – Traffic and Transport Issues. Final Report.*

These reports were available to all the determining authorities to assist in the review of the proposal and preparation of this joint determination report.

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<sup>7</sup> Dr Bali was later engaged by the co-proponents and was not subsequently involved in providing further advice to the determining authorities.

## 2 THE PROPOSAL

This section provides a brief description of the final proposal for which approval has been sought by the co-proponents. It also highlights the main changes to the proposal that was described in the original EIS.

The key changes to the original proposal are described in the Preferred Activity Statement (PAS). The co-proponents have subsequently proposed two minor modifications to the activity described in the PAS: the relocation of the proposed water tanks from the Stonemason's Yard to the Lower Reservoir; and an extension of the timeframe for upgrading the fire hydrant system from 2 to 5 years. The co-proponents have also provided additional information to the determining authorities regarding the proposed restaurant in Building A6.

The on-going amendment and evolution of the activity in this way is a normal part of the environmental impact assessment process and commonly occurs for large and complex proposals. The changes have been made by the co-proponents in response to issues raised in the submissions, during the COI process, as a result of on-going discussions with the determining authorities or following the receipt of new information.

The determining authorities have considered the changes made to the original proposal as detailed and exhibited in the EIS in comparison to the final activity for which approval is now being sought. The determining authorities are satisfied that the changes to the activity do not necessitate a re-exhibition of the proposal. The changes have not significantly altered the nature of the activity proposed nor are they likely to have additional impacts that have not already been considered as part of the assessment process. On the whole, the determining authorities have concluded that the revisions have decreased the scope and scale of likely adverse impacts.

### 2.1 Proposed activity

The co-proponents have presented five objectives for the proposal:

- € improve the conservation and presentation of the Quarantine Station through a major 5 year investment in conservation work to arrest current deterioration, then ongoing conservation work to maintain the site in good condition;
- € increase public access by a range of measures, including free access on community days, free access to the Wharf Precinct at all times, expansion of visitor services and opportunities, a ferry service and improving facilities and services for people who have reduced mobility or do not speak English;
- € expand the range of interpretation and educational services and design them to nationally accepted best practice standards;
- € return a proportion of the operation's profit for re-investment into conservation and visitor services work on local heritage sites within Sydney Harbour National Park; and
- € guide decision-making by introducing one of Australia's leading environmental monitoring and adaptive management systems, to

continually check on the condition of natural heritage, cultural heritage and the quality of the visitor experience.

The original EIS also included one additional objective:

- € provide further on-site accommodation to allow guests an appreciation of the significance and serenity of the site.

To achieve these stated objectives the proposal identifies several major uses for the site, a range of physical changes required to accommodate these uses and proposals for the management of visitor access, provision of interpretation programs and development of an integrated monitoring system.

## **2.2 Proposed site uses and visitor access**

The key uses proposed for the site include: a visitor information centre; museum; four guided interactive tours; a restaurant, an accommodation, events and functions centre; an environmental and cultural study centre; and other site operations (such as archival storage, use or storage of moveable heritage and site administration functions). The spatial arrangement of the proposed uses is summarised in Figure 2.1 of the PAS.

The undertaking of construction works (including adaptation and conservation works) would occur over 5 main stages, over a 3-4 year period. The commencement of new operations would be similarly staged. For example, the ferry service would commence in Stage 2<sup>8</sup> (10-18 months) while the museum and storage of archives in the reconstructed H1 would commence in Stage 4 (25-30 months).

Once fully operational, most activities at the site would occur between 8.30 am and 9.30 pm, with the peak periods of activity between 12.30 – 4.30 pm and 7.00 – 10.00 pm. Each use would have its own operating hours, which would vary on a seasonal basis. The hotel would operate on a 24 hour basis but would obviously experience less activity between 11.00 pm and 7.00 am (EIS, Vol.1, p.5-15).

Access to the site is to be provided through a mix of water and road based modes. It is anticipated that up to half of all visitors would arrive by water. Other visitors on day tours would arrive either by car, bus, taxi or foot. Parking for day visitors and buses would be provided at the entrance of the site and day visitors would then be transported to the Wharf Precinct by a free shuttle bus. Hotel guests would be able to drive to the hotel reception (Building S2) and then to one of the proposed on-site car parks. From the car parks guests would be transported by a shuttle-bus or people-mover to their accommodation.

The PAS projects that visitor levels (including staff and contractors) would reach approximately 100,000 by the time operations are fully functioning (after 3 years). Currently, around 30,000 people visit the site each year. Visitation would vary on a seasonal basis with the peak period occurring in summer,

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<sup>8</sup> as shown in Table 2.4 of the PAS, although p.9 refers to commencement of the ferry service within four months.

between November and March. The number of staff or visitors on site at any one time would also vary according to the time of day, day of the week and season. The PAS proposes a maximum limit of 450 visitors at any one time on the site, which is consistent with the figure recommended by the COI. While this is the maximum proposed limit, it is noted that the EIS predicted that typical operations would generate 30 staff and 200 site visitors at any one time. The draft Visitor Access Strategy provided with the EIS provides further details of forecast visitation.

Access within the site is proposed to be controlled. For the first time, free and general access would be provided to the site, with all visitors being able to access the Wharf Precinct (which contains the beach<sup>9</sup>, restaurant and visitor centre) at no cost. Visitors wishing to access other parts of the site would need to join a tour, with the exception of overnight guests who will be able to move between the Wharf Precinct and the precincts containing accommodation. The PAS proposes that two free access community days would be proposed per year, to be managed through a booking system and in accordance with site visitor limits.

## **2.3 Proposed physical changes**

The physical changes proposed to the site are detailed in Section 2.4 and Appendices C, D and E of the PAS.

The co-proponents propose that the majority of construction works would be undertaken within the first three years, but operations would start immediately using existing facilities. The major works proposed are summarised in Table 2.3 of the PAS. In total, the overall cost of development is estimated at approximately \$13 million<sup>10</sup>. That would include \$4 million in conservation works during the first 5 years. The PAS indicates that the primary focus for conservation works will be on the priorities identified in the DACMP. However, it is noted that the co-proponents consider that “conservation works” also include: the description and assessment of the heritage values of the site; building adaptation works and repairs that contribute to physical conservation; environmental management programs (such as weed control); and a portion of works needed to improve visitor access and interpretation.

The key building, infrastructure and landscape changes and uses proposed are summarised below.

### **(a) Buildings**

- € a visitor centre and theatrettes in building A14-17;
- € a restaurant, bar and café in building A6 and accompanying outdoor eating area, with combined seating for up to 150 people;

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<sup>9</sup> free access to the beach is currently available but only via water, eg. by private boat. An existing cyclone wire fence and locked gate prevents public access beyond the beachfront to the rest of the site.

<sup>10</sup> it is noted that the PAS (p.53) refers to a figure of \$14 million but no further details have been provided. The determining authorities have therefore relied on the original estimates in the EIS (Table 5.2).



- € reconstruction of fire-destroyed buildings H1 and P22, and the possible reconstruction of previously demolished buildings P21 and P23. H1 would be used for interpretive purposes, artefact storage and some functions. P21, P22 and P23 would provide accommodation as part of the environmental and cultural study centre;
- € a viewing shelter in building A28-29;
- € entry into buildings across the site as part of the guided interactive tours (refer Table 2.1 of the PAS);
- € adaptation and use of buildings and cottages for accommodation, functions and events. Up to ninety rooms would be provided for accommodation, compared to the current sixty-one in use;
- € retention of Buildings P1, P2 and the Isolation Wards (H7-11) in their current form and use for authentic accommodation. Some rooms in other buildings (eg. P11 and P12) would also remain as authentic rooms and utilise the existing shared bathrooms;
- € adaptation and use of buildings in the Third Class and Asiatics Precinct for an environmental and cultural study centre;
- € storage and conservation of archives and moveable heritage (not required for use elsewhere on the site) in buildings H3 and H5 in the Hospital Precinct;
- € use of several buildings for administration and staff accommodation; and
- € various building conservation works across the site, including roofing, guttering and stone pier repairs, painting, re-wiring, etc.

(b) Infrastructure

- € installation of two 45,000 litre water tanks and pumping equipment in an area adjoining the Lower Reservoir to manage peak water requirements to the site;
- € construction of 2 car parks (CP1 and CP5), use of one existing car park adjoining building S1 and construction of several bus parking bays along the road after A26, together with repairs to roads and kerbs;
- € repairs to the wharf and installation of low-level safety lighting on the deck;
- € upgrading of electrical systems, including installation of an electrical service to A6 (via the Funicular stairway) and low-level lighting, together with the removal of some existing poles and overhead cables (to be replaced with trenched services);
- € upgrading of water and sewer systems. This includes installation of a sewer connection from A6 (restaurant) to the existing system in A7, repairs to the water reservoirs and existing services, and replacement of the concrete stormwater pipe at the beach;

- € installation of a fire safety system across the site, including duplication of the existing water supply to provide a separate system for fire management; and
- € installation of a 1,000 – 1,500 litre grease trap and waste management area in the Wharf Precinct (between A6 and A7) together with a LPG tank.

#### (c) Landscape

- € construction of a stairway following the former Funicular route, linking the Wharf and First Class Precincts;
- € repair and restore the Funicular rails and ramp;
- € construction of a gravel pathway from Second Class to the top of the Funicular stairway;
- € realignment of part of the pathway from the Hospital to the Wharf Precinct (to enable better management of the inscriptions in this area);
- € conservation, fencing and lighting of inscriptions;
- € introduction of symbolic sections of precinct fencing;
- € modification or replacement of the existing wire fence at the beach, and repair or reintroduction of fences around cottages;
- € provision of low-level lighting and sandstone markers at the First cemetery, and reinstatement of original or replica gravestones for the Second cemetery;
- € re-establish and interpret the croquet, badminton and tennis lawns in the First and Second Class Precincts and introduce a symbolic floor plan for the former building A5 in the Wharf Precinct (by painted lines and removing bitumen covering sandstone footings); and
- € various stabilisation and repair works across the site.

## **2.4 Interpretation**

The co-proponents propose a range of direct and non-direct interpretation techniques for the site. A draft Interpretation Plan was provided in the original EIS and is proposed to be finalised after the activity has been determined.

Direct interpretation includes: the visitor centre and museum; guided tours; environmental and cultural study centre; special events; and interpretative signage and displays within buildings.

The non-direct techniques include: use of buildings and facilities similar to original uses; controlled presentation of the landscape and building exteriors to reflect operating periods of the site; sympathetic presentation of internal areas of buildings; and levels of activity across the site similar to what would have occurred during previous operations.

## **2.5 Environmental management, monitoring and consultation**

In order to guide the practical implementation of the proposal, the co-proponents intend to prepare an Environmental Management Plan (EMP). The proposed EMP is noted as the “principal operating control document” (EIS, p.23-5) for the proposal and is intended to integrate the various strategies, plans and approval conditions for the project into one document. The PAS notes that the EMP would progressively shift from a construction to an operations focus, as the various stages of the project are completed.

Monitoring is discussed at various points in the EIS and PAS. In general, the co-proponents propose that a single integrated monitoring system will be prepared that considers all components of the project and sets relevant benchmarks. The integrated model would include: the condition of natural and cultural heritage; visitor numbers; quality of visitor experiences; and economic performance. The monitoring system is based on the Tourism Optimisation Management Model and is intended to allow adaptive management of the proposal over time.

The outcomes of the monitoring system would be fed into an on-going series of proposed annual environmental reports and five-yearly audits. It is noted that Mawland Hotel Management Pty Ltd has allocated \$60,000 per annum towards the monitoring system. This includes contributions to the Aboriginal community to monitor the condition of Aboriginal sites and to tertiary institutions and non-government organisations to monitor and report on other aspects of the operation.

The PAS also includes proposals to appoint an Environmental Management Officer (EMO) to oversee operations on the site. The EMO would have the authority to “stop work” and would report to the Director-General, DEC.

In addition, the PAS proposes the establishment of an inter-agency reference group, made up of the determining and approval authorities, and a Quarantine Station Advisory Committee. The agency group would function primarily for the first three years, when most works are occurring. The Advisory Committee would be established under the recently revised *NPW Act* and provide the principal form of community input to the operations at the site. It is noted that the amended *NPW Act* requires that an Advisory Committee be made up of a minimum of 12 persons who must have specified skills and expertise.

## **2.6 Future initiatives**

In addition to the uses and physical changes proposed for the site, the co-proponents have previously indicated that there are several initiatives that are not part of the current application for approval but which may be considered in the future. These include upgrading of the wharf to cater for Sydney Ferries and cruise vessels, construction of a shade structure in the Wharf Precinct (between A7 and A12) and installation of a grey water reuse system and solar panels.

These proposals are not included in the PAS and, if proposed at some later date, would be considered as part of a separate environmental assessment process.

## **2.7 Key amendments to the original proposal**

As noted earlier, the proposal has evolved during the assessment and public consultation processes, including the COI. The co-proponents have responded to issues that have arisen during these processes and have made a number of variations to the proposal that was originally exhibited in the EIS. These changes are highlighted in Section 2.5 of the PAS and include:

### (a) Project and visitor management

- € the co-proponents are seeking a planning approval for 21 years. This would be mirrored by a 21 year lease, with provision for consecutive 15 and 9 year options;
- € undertake the first environmental audit after half of the construction works have been completed;
- € further development of the integrated monitoring and adaptive management system;
- € reduce the maximum number of visitors on-site at any one time from 500 people to 450 people;
- € provide day visit opportunities for educational and school groups (with no need to stay overnight);
- € provide two annual community days for visitors to participate in free activities that explore the condition of the site and how it is being monitored and managed;
- € establish a Quarantine Station Advisory Committee; and
- € enter into an agreement with the Metropolitan Aboriginal Land Council to provide for site protection, on-going consultation and interpretation opportunities (it is understood that the agreement has since been finalised).

### (b) Buildings

- € revised timeline for the staging of works, with links to the first audit process (above);
- € use of P6 as a prototype for adaptation;
- € in A6, remove the dining seating around the boilers and install a false floor to minimise penetrations for services<sup>11</sup>;
- € shift the outdoor eating area at A6 to align with the building edge;

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<sup>11</sup> further information on the proposed mezzanine and adaptation of A6 was provided by the co-proponents by facsimile dated 14 October 2002 and in a paper dated 31 October 2002.

- € reconstruct the fire-destroyed buildings H1 and P22;
- € retain existing room layouts in the Isolation Wards (H7-11);
- € fully sample and retain P1 and P2; and
- € install fire sprinklers in highly significant wooden buildings.

(c) Infrastructure

- € a reduction in the number of total car park spaces from 224 to 184 spaces;
- € deletion of car parks CP2, CP3 and CP4 and parking in the Isolation Precinct, together with deletion of the bus turn-around area in the Third Class Precinct;
- € expansion of the capacity of CP1 (from 100 to 120 spaces) and CP5 (from 43 to 56 spaces), and transfer of the accommodation check-in parking (formerly CP4) to an existing parking area adjacent to S1;
- € deletion of overflow parking in the grassed areas near S14 and a restriction on road-based overflow parking to 4 special events and 2 community days per year;
- € allocation of guest parking according to room type. For example, guests staying in authentic rooms to park in CP1 only;
- € installation of speed humps, signage, and traffic barriers;
- € provision of a shuttle bus service;
- € downscale the stormwater pipe to Quarantine Beach to one-third of its original size;
- € extension of the timeframe for upgrading of fire hydrants from 2 to 5 years<sup>12</sup>; and
- € augment the water supply by installing two 45,000 litre water tanks near the Lower Reservoir<sup>13</sup>.

(d) Landscape

- € retain separation of uses between the Quarantine Beach and the Wharf Precinct but provide a fence system that allows views, night security and access to the beach for emergency purposes and recreation; and
- € installation of fencing to restrict access to Little Penguin habitat.

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<sup>12</sup> as proposed in the letter from the co-proponents dated 12 November 2002.

<sup>13</sup> the PAS proposed to locate the tanks in the Stonemason's Yard. This was amended by the co-proponents in the letter dated 12 November 2002.

The potential environmental impacts of these changes, and the activity for which approval is now being sought, are considered in detail in Sections 4 and 5 of this report.

### **3 CONSULTATIONS**

The proposed conservation and adaptive re-use of the Quarantine Station has been the subject of considerable community interest. Many individuals and groups have provided substantial comment on the proposal and its potential environmental impacts. Views expressed by the community have been extensively considered by the determining authorities and have informed the preparation of all elements of this report.

Consultation on the proposal has been undertaken in a number of ways by both the co-proponents and the nominated determining authority and has exceeded the minimum statutory requirements. This section discusses the key elements of the consultation process below. The issues raised by the submissions are considered in detail in Sections 4 and 5 of this report and in Appendix 9.

#### **3.1 Consultation undertaken by the co-proponents**

Stakeholder consultation undertaken by the co-proponents prior to the exhibition of the proposal is described in Appendix D of the EIS. Together with standard consultation practices, such as agency workshops and stakeholder briefings, the co-proponents held a series of public information sessions and provided newsletters and site visits. Information regarding the proposal was also available on the Internet.

In addition, the co-proponents provided an information session and on-site tours outlining the proposal during the exhibition period for the EIS and hosted the on-site public site visit for the Commission of Inquiry.

Further, the co-proponents have undertaken specific consultation with the Aboriginal community regarding the proposal and options for future management and interpretation of Aboriginal heritage values at North Head. Those discussions are continuing and it is understood that Mawland Hotel Management (being one of the co-proponents) has entered into an agreement with the Metropolitan Local Aboriginal Land Council.

#### **3.2 Consultation undertaken by the determining authorities**

##### (a) EIS exhibition

The EIS (including the SIS) was exhibited for a period of nine weeks from 17 September to 19 November 2001 inclusive. The EIS included a certificate signed by Manidis Roberts Consultants specifying that the EIS had been prepared in accordance with the *EP&A Regulation 2000*. The accompanying SIS included a certificate signed by Gunninah Environmental Consultants, Mawland and the Minister for the Environment stating that the SIS had been prepared in accordance with relevant sections of the *TSC Act*.

Details of the exhibition, including public display locations and times, were published in the Sydney Morning Herald, Daily Telegraph and Manly Daily on two separate occasions: 15 September 2001; and 2 October 2001.

In addition to the EIS, a range of relevant background documents were also made available for inspection and purchase as part of the exhibition process. These included:

- € the North Head Quarantine Station Conservation Management Plan (NPWS 2000b);
- € the North Head Quarantine Station Detailed Area Conservation Management Plans (NPWS 2001b);
- € the Community Approach to Recording Aboriginal Heritage: A Case Study at North Head (Darwala-Lia 2001)<sup>14</sup>;
- € a summary of the planning assessment process; and
- € a copy of the exhibition advertisement.

Separate information regarding the leasing process for the site was also made available on the NPWS web-site.

#### (b) Notifications

In accordance with Section 112(2) of the *EP&A Act* a copy of the EIS was provided to the Director-General of PNSW on 14 September 2001, prior to commencement of the public exhibition.

Details of the EIS exhibition process were provided to a number of stakeholders and interested groups who were identified by the determining authorities. Key groups and agencies were also provided with copies of the EIS and supporting documents free of charge.

Following the announcement of the Commission of Inquiry (COI) by the Minister for Urban Affairs and Planning and the public advertisement of details of the Inquiry on 8 October 2001, letters were also sent to the same stakeholders advising of the COI process. The letters noted that submissions on the EIS would be forwarded to the Commissioners to assist in the Inquiry, unless submission authors requested that this not occur.

Reminder letters were sent in early November 2001 to stakeholders that had not yet provided a submission on the EIS.

#### (c) Section 60 application

The Section 60 application under the *Heritage Act* was exhibited concurrently with the EIS and at the same locations. Details of the exhibition were also advertised on the same dates and in the same newspapers as for the EIS and included in the letters to key stakeholders.

Following the fire in building P22 (October 2001), the proposed works to this building were subsequently deleted from the proposal and a modification to

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<sup>14</sup> with the agreement of the Metropolitan Local Aboriginal Land Council, the public exhibition version of this document did not include the recommendations as these were still the subject of discussions between the Council and the NPWS. It also excluded certain maps showing the location of Aboriginal heritage places as this information was considered highly sensitive. These exclusions were noted on the front cover of the public access version.



the Section 60 application advertised. A separate later fire also caused major damage to building H1.

After discussions with the Heritage Office and the other determining authorities the co-proponents have decided to include the reconstruction of P22 and H1 as part of the final activity for which approval is being sought. As noted above, the modifications to the Section 60 application, and hence the scope of this report, only relate to the potential environmental impacts associated with the concept of reconstruction and the proposed end uses for these buildings. The detailed physical design of the buildings will be the subject of a further application to the Heritage Council.

The proposal to modify the Section 60 application to include the reconstruction of H1 and P22 was exhibited from 22 October to 15 November 2002. The modification was exhibited in the Sydney Morning Herald and Manly Daily and was made available for viewing at the NSW Heritage Office and Manly Council.

Submissions on the Section 60 application, and the proposed modification, were considered in the preparation of this report.

(d) Amendments to exhibition process

The exhibition of the EIS and Section 60 was originally advertised to occur between 17 September and 9 November 2001.

However, during the exhibition process it came to light that the DACMP included with the exhibition package contained minor differences to the version endorsed by the Heritage Council. As a result, the exhibition period for both the EIS and Section 60 application was extended to 19 November 2001. This was advertised in the relevant papers (see above) on 13 October 2001, and key stakeholders and groups were advised of the extension by letter and provided with a copy of the erratum to the DACMP. Additionally, letters were sent to all people from whom submissions had been received advising of the extension.

Amendments to the Section 60 application process are discussed above.

(e) Specific consultations

In addition to the general consultation process for the EIS and Section 60 applications, consultation has also been undertaken with a number of specific organisations. These are outlined in the following table. It should be noted that not all of the consultations were a statutory requirement but it was considered prudent to consult with the relevant organisations as a precautionary measure and in accord with the spirit of the relevant statutory document.

Organisation	Consultation requirement
Foreshores and Waterways Planning and Development Advisory Committee	Clause 13B of Sydney Regional Environmental Plan (SREP) No.23 – Sydney and Middle Harbours

Organisation	Consultation requirement
NSW Heritage Council	Clause 26 of Sydney Regional Environmental Plan (SREP) No.23 – Sydney and Middle Harbours
RTA	State Environmental Planning Policy (SEPP) No.11 – Traffic Generating Developments
Sydney Water	Clause 13B of Sydney Regional Environmental Plan (SREP) No.23 – Sydney and Middle Harbours
Manly Council	Clause 11A(3) of State Environmental Planning Policy (SEPP) No.4 – Development Without Consent
Sydney Harbour Design Review Panel	N/A

Consultation with Manly Council occurred in two stages:

- € Council were invited during the exhibition of the EIS to provide general comment on the proposal and specific comment on the proposal as a “prescribed development” under SEPP No.4; and
- € Council were subsequently invited to comment on the outcomes of the COI report. The invitation also noted that a further consultation would accord with the spirit and intent of SEPP No.4.

Manly Council provided detailed responses to both invitations. In addition, Council also made a comprehensive submission to the COI and provided comment on the proposed modification of the s.60 application. Many of the issues presented by the Council reflected concerns raised in a number of other submissions and there is therefore a large degree of consistency with the major themes that emerged from the consultation process (Appendix 9).

Key issues highlighted in the submissions by Manly Council included:

- € the cumulative impact of the proposal and the need to take an integrated approach to planning for North Head. This includes options associated with future uses of the School of Artillery;
- € access implications, including impacts of vehicle traffic on surrounding roads and the Manly Town Centre, as well as access arrangements for the ferry service;
- € the terms of the lease and the economic feasibility of the proposal;
- € the scale of physical impacts, such as construction of the Funicular stairway, reconstruction of buildings, and associated impacts on fabric;

- € potential impacts on Little Penguins and Long-nosed Bandicoots (including concerns regarding the results of recent surveys);
- € visitor capacities;
- € infrastructure requirements (sewer and water);
- € reconstruction of the fire-damaged buildings; and
- € various detailed comments regarding the findings and recommended conditions of approval detailed in the COI report.

The determining authorities note that the Council's submission to the COI states that consultation has not been sufficient to meet the requirements of SEPP No.4. This point is reiterated in Council's comments on the COI outcomes.

The determining authorities disagree with the Council's views in this regard. SEPP No.4 includes a clear obligation to give written notice to the Council of the proposed development and to give consideration of any issues presented by the Council prior to determining whether the activity should proceed. As noted above, Council was invited on two occasions to provide written comment on the proposal and has responded to both those invitations. Council staff have also met with officers of the NPWS to discuss issues regarding the proposal and a further invitation to meet was extended to the Council at the same time comments on the COI outcomes were requested. Further, the Council has also presented written and verbal submissions to the COI.

The determining authorities consider that Manly Council has therefore had sufficient opportunity to present its views on the Quarantine Station proposal and that the requirements of SEPP No.4 have been satisfied. The matters presented in the various submissions from Council have been carefully considered by the determining authorities in the preparation of this report.

#### (f) Use of submissions

Copies of all submissions received during the EIS exhibition period were forwarded to the Director-General of PNSW, the determining authorities, the co-proponents and the Office of the Commissioner's of Inquiry.

The co-proponents subsequently undertook an assessment of issues raised in the submissions and this was tabled at the COI hearings. The PAS was then prepared by the co-proponents after considering the submissions, the outcomes of the COI and discussions with the determining authorities.

In preparing this report the determining authorities have considered all submissions received regarding the proposal. This has included submissions:

- € on the initial EIS and Section 60 applications;
- € on the proposal to modify the Section 60 application (for the reconstruction of H1 and P22);
- € to the COI; and

≠ the submissions provided by the organisations highlighted in point (e) above.

It is noted that the report of the COI, which collated and considered in detail the public submissions, was of great assistance to the determining authorities.

### 3.3 Summary of issues raised

A total of 1097 submissions were received on the proposal following exhibition of the EIS. 887 representations were also made on the initial Section 60 application. Only five of these were made on the Section 60 application alone (ie. the remainder were duplicates of submissions made on the EIS).

A further 6 submissions<sup>15</sup> were received by the NSW Heritage Office regarding the proposed modification to the Section 60 and the reconstruction of H1 and P22. These were analysed separately to the EIS and original Section 60 submissions and are not included in the following tables or in the more detailed assessment in Appendix 9.

The majority of submissions were prepared by individuals and groups based in the Manly LGA or Northern Sydney LGA's (72.9%). The remaining submissions came primarily from individuals or groups based within Sydney (19.6%), with only 4.3% from other areas within NSW or interstate.

Most submissions were prepared by individuals (95.6%). Two per cent (22) of submissions were received from interest groups (eg. community or environment groups), 1% (10) from State or Commonwealth agencies and 0.09% (1) from local government.

**Table 2 - Source of submissions: location**

TYPE	NUMBER
Northern Beaches LGA <sup>16</sup>	799
Other Sydney	215
Other NSW	23
Inter-state	24
International	8
Not recorded*	28

\*addresses were sometimes either not provided or not legible

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<sup>15</sup>this includes one late submission received after the closing date.

<sup>16</sup> Northern Sydney LGA's are generally defined as those suburbs to the east of Mona Vale Road and to the northeast of the Pacific Highway, extending up to Palm Beach.

**Table 3 - Source of submissions: author**

TYPE	NUMBER
Commonwealth Government	2
State Government	9
Local Government	1
Business / industry	8
Interest groups (eg. community or environment group)	22
University / research	4
Other (eg: political party)	2
Private individuals	1049

Appendix 9 of this report provides a list of all submissions and an analysis of issues raised. Appendix 9 also includes separate summaries of representations that provided more detail and comment on the EIS than could be accurately recorded in the database.

The main issues of concern raised in the representations are summarised in the following table.

**Table 4 - Submissions: Key Issues**

ISSUE	NO. TIMES RAISED	% OF REPRESENTATIONS THAT RAISED ISSUE
Lease - for	5	0.5
Lease - against	429	39.1
Lease - neutral	35	3.2
Proposal - for	39	3.6
Proposal - against	838	76.4
Proposal - neutral	220	20.1
Private sector - against	491	44.8
Type/scale of development	224	20.4
Proposed restaurant	134	12.2
Proposed ensuite	82	7.5
Public access	231	21.1
Alternatives	96	8.8

ISSUE	NO. TIMES RAISED	% OF REPRESENTATIONS THAT RAISED ISSUE
Integrated planning for North Head <sup>17</sup>	83	7.6
Access <sup>18</sup>	132	12.0
Financial feasibility <sup>19</sup>	170	15.5
Amenity	209	19.1
Heritage significance	547	49.9
Bandicoots	79	7.2
Little Penguins	124	11.3
General flora/fauna impacts <sup>20</sup>	153	13.9

In summary, almost all submissions expressed some form of opposition to the proposal. This included general objections to the overall development and concerns regarding particular aspects of the proposal (eg. the scale of physical adaptation, introduction of ensuite, etc). A number of these submissions expressed the view that the site should be preserved as it currently is, with no change and minimal or small-scale use.

A significant feature of the submissions was a strong objection to the role of the private sector in the proposal and future management of the site under lease arrangements. A related theme was the issue of inter-generational equity, ie. the protection of the site for present and future generations. In addition, almost all submissions raised the issue of significance in one way or another, generally in terms of concern at the likely impact of the proposal on protecting the significance of the site.

The submissions received in relation to the proposed reconstruction of H1 and P22 also raised a number of concerns, although there was conditional support for the reconstruction of both buildings. These submissions are discussed in Section 4 of this report.

The issues raised in all the representations are discussed in Sections 4 and 5 as part of the assessment of the environmental effects of the proposal.

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<sup>17</sup> includes North Head and School of Artillery categories, as defined in database.

<sup>18</sup> includes traffic, water access and car parking categories, as defined in database.

<sup>19</sup> includes cost/benefit and conservation dollars categories, as defined in database.

<sup>20</sup> includes bushland and other categories, as defined in database.

## **4 KEY ENVIRONMENTAL ISSUES & EFFECTS**

This section of the determination report provides the detailed consideration of the potential environmental impacts of the activity. It also considers the mitigation measures proposed by the co-proponents, issues raised in the submissions and the outcomes of the COI.

Conclusions are provided regarding the likely impact of the activity on the specific environmental attributes of the Quarantine Station. In addition, the section considers the cumulative impacts of the proposed activity for the site and North Head more broadly, together with consideration of the overall justification of the project.

The determining authorities note that there is considerable overlap in the assessment of potential environmental impacts. This is an unavoidable consequence of the multiple values of the site and the layering of significance. Hence, any given element of the development proposal may have potential impacts across a range of issues. For example, vehicle access and parking has implications for traffic volumes, noise, fauna, stormwater management, visual quality and general amenity. The discussion below acknowledges these overlaps and linkages as much as possible, but to ensure a logical structure to the discussion it has been necessary to compartmentalise the issues.

### **4.1 Cultural heritage**

#### **4.1.1 Context**

The Quarantine Station is recognised as having state and national significance as the oldest and most intact quarantine facility for people entering Australia. The historical development of the site reflects the changing social and scientific demands of quarantine between 1828 and 1984, and Australia's changing social and racial values over this period.

The form and character of the present Quarantine Station study area is a reflection of the dynamic interactions between Aboriginal people, early explorers and settlers, immigrants and the landscape, both spatially and temporally. These interactions and the specific uses of the site for quarantine purposes form the core components of the site's cultural heritage values.

The primary use of the Quarantine Station study area since the early 1800's has been for quarantine purposes. This has encompassed a range of activities and uses such as accommodation, recreation, food preparation and delivery, internment of the ill, burial of the dead, etc. Other uses have included military barracks, temporary housing for children evacuated during WWII, refugees, illegal immigrants and cyclone-evacuees, and associated activities such as breeding bandicoots for research purposes. The site has been used by a range of age groups, social classes and cultural groups over time.

The whole of the Quarantine Station is of high cultural significance. It is the complete assemblage of buildings, elements, landscape, features, views and relationships of precincts, that are essential to an understanding of the place. In addition, individual items and features have varying degrees of significance in their own right. The site is also an integral element of the North Head

peninsula as a whole and its significance can only be fully appreciated and interpreted in relation to this broader setting.

It has been estimated that the Quarantine Station received 13,000 internees and 1,000 staff during its active lifetime, with the level of use varying markedly during this period. For example, during plagues and epidemics several thousand people may have been housed, while at other times this may have reduced to 10-15 people (when no ships were quarantined). Estimates provided in the EIS suggest that the average number of people staying at one time appears to have been 315 people, with an average length of stay being several weeks. Currently, visitor levels are up to 30,000 per year, and the primary use of the site is for functions (and associated accommodation), interpretive tours, staff accommodation and offices.

A conservation management plan (QSCMP) and a series of precinct based detailed area conservation management plans (DACMP) have been prepared for the site and endorsed by the NSW Heritage Council (NPWS 2000b, 2001b). The QSCMP provides a comprehensive statement of significance for the site.

A more detailed assessment of the individual precincts that form the Quarantine Station is then provided in the DACMP. This plan expands on the policies outlined in the QSCMP, provides detailed building data sheets for buildings or elements within each precinct and establishes a framework for decision-making. It also provides: specific subsidiary policies; detailed descriptions, assessments and policies for archaeological components within each precinct; and policy for cultural landscapes, which are analysed in terms of contextual relationships, experiential qualities and key landscape elements.

Both the QSCMP and DACMP provide guidance on the type and nature of adaptive re-use that is considered acceptable at the site. Key themes include:

- € the need to protect and provide evidence of all layers of significance, including natural and cultural values;
- € interpretation of the site as a place of quarantine;
- € Aboriginal community decision-making roles with respect to the conservation and interpretation of Aboriginal heritage;
- € controlled public access to, and within the site, including specific controls on vehicle access;
- € opportunities for reconstruction of previous buildings and structures, subject to meeting specified criteria;
- € adaptive re-use that is compatible with historic usage, including accommodation (with some scope for the introduction of new facilities); and
- € the need for an environmental management plan and monitoring programs.

The condition of built structures at the Quarantine Station is deteriorating, despite the conservation works and upgrading that has taken place since



1984. Many buildings require urgent repair works as well as cyclical maintenance. The DACMP Data Sheets provide clear guidance on the urgent, medium term and long-term works required to protect the significance of the place.

#### **4.1.2 Proposal and likely impacts**

Conservation and adaptive re-use of the Quarantine Station is the fundamental principle on which the proposal is based. Chapter 21 of the EIS and the accompanying Heritage Impact Statement (Volume 4) provide a basic description of cultural heritage impacts. However, virtually all aspects of the proposal described in the EIS, and as subsequently modified in the PAS, impact on the cultural heritage significance of the place either in a positive or potentially adverse manner.

This section of the determination report seeks to focus mainly on the key aspects of the proposal with respect to cultural heritage. Other sections address related issues, such as public access, in more specific detail. The assessment has been informed by reports prepared by the Heritage Office as part of their consideration of the s.60 application.

The primary components of the proposal that have the potential to impact on the cultural heritage significance of the Quarantine Station can be described in terms of: changes in use, particularly in terms of type of use; visitor access and numbers; and physical changes to the study area. This last category includes reconstructions, alterations to existing buildings, infrastructure and conservation works.

##### (a) Changes in use

The fundamental change in use for the site is from an institutional use (as a quarantine station) to an expanded commercial tourism use, although it is noted that the site is already utilised for a level of cultural tourism purposes. People's experience of and associations with the site in the past and present will change as a result of this expansion. However, many of the activities that occurred at the site will continue, such as accommodation, food delivery, etc, albeit in an altered form. In addition, the new interpretation opportunities have the potential to significantly improve the awareness and understanding of the site's values.

The following specific types of uses are proposed at the Quarantine Station:

- € interpretation of the cultural significance of the site through several guided tours, including a major sound and light show tour;
- € accommodation in the First and Second Class Precincts, self-contained cottages in the Isolation and Administration Precincts and educational centre accommodation in the Third Class/Asiatic Precinct (school and adult groups);
- € meetings, functions, and conferences in various buildings across the site;
- € a new visitor centre and a restaurant in the Wharf Precinct;
- € a museum in the reconstructed H1;

- € special events and free community open days;
- € educational and study activities; and
- € site administration and management, including archival storage.

#### (b) Visitor access

The proposal aims to make the site more accessible to the public and provide equitable access in terms of physical, financial and language needs (providing this does not impact on the significance of the site or reduce visitor experience). This would be achieved through mechanisms such as disabled access, multi-lingual tours and concession pricing arrangements. For the first time since 1984, free access would be provided to parts of the site (the Wharf Precinct).

Access to the site is proposed by water (use of a historic ferry) and road. Visitors arriving by road would either be transported in a shuttle bus from the entrance to the Wharf Precinct or, if staying overnight, would be allowed to drive to the accommodation reception area at building S2 for check-in. Access arrangements are discussed in further detail in Section 4.4 of this report.

Compared to historical trends and use of the site for quarantine purposes, the pattern of use of the site will change. There will be more regular use, generally shorter length of stays and higher overall numbers of people on site per year.

Approximately 100,000 visitors per year are expected by the time the operation is fully functioning (about Year Three of the proposal). The EIS recognises the importance of maintaining a sense of isolation, and personal space at the site, and the need to minimise impacts on visitor experiences for each operation. The PAS proposes a maximum of 450 visitors and staff on the site at any one time, with an optimal capacity of 315. This is consistent with the levels recommended by the Commission of Inquiry.

Increased visitor access will have potential impacts on the fabric of the place and specific elements, such as threatened fauna. It may also detract from the visitor's experience of the site's isolation and ambience.

#### (c) Physical changes

Proposed physical changes to the Quarantine Station include:

- € the construction of new features, including two new car parks, a stairway over the former Funicular, etc;
- € the reconstruction of former features, such as previously demolished or recently fire-damaged buildings, the croquet and tennis courts, etc;
- € adaptation and fitout works to existing buildings, especially the introduction of ensembles into the accommodation buildings in the First and Second Class Precincts and a restaurant in building A6;

- € infrastructure works, including the removal of power poles, duplication of the water line for fire purposes, trenching of new services, installation of new lighting, etc;
- € landscaping works, such as signage, symbolic fencing and restoration of eroded areas; and
- € conservation works, including undertaking of the urgent and medium term priority works described in the DACMP.

These works have the potential to both adversely and positively impact on the significance of the place.

#### **4.1.3 Proposed mitigation measures**

The PAS describes a number of measures to be undertaken to mitigate the potential cultural heritage impacts of the proposal. As noted above, there are many other elements of the proposal that are also relevant in this regard. The determining authorities therefore reiterate that this section of the determination report cannot be read in isolation.

The key mitigation measures relevant to cultural heritage include:

- € preparation of a final moveable heritage plan, visitor access strategy, interpretation plan and integrated monitoring program;
- € retention of fabric and significant features to be addressed during the detailed building works phase (the PAS lists a number of buildings where this will occur);
- € salvage, recording and re-use of removed materials;
- € revision of the works schedule to better link the adaptation and conservation works and incorporate works identified in the DACMP;
- € full sampling of buildings P1 and P2 and development of a prototype bedroom conversion in P6;
- € retention of existing room layouts in the Isolation Precinct;
- € installation of a false floor in A6 and reconfiguration of the indoor and outdoor eating areas;
- € reducing the size of new bedroom openings and installing insulation via the roof-cavity or by peeling back wall linings;
- € provision of beachfront fencing (either the existing fence or a modified fence), but with two controlled access points; and
- € briefing of contractors regarding the values of the site and guidelines for undertaking works.

The primary mechanism for evaluating impacts associated with cultural heritage is the proposed integrated monitoring program. The program will

monitor various indicators set for the site to assess the relationship between visitor numbers, site condition, quality of experience and viability of the operations. A draft monitoring system is included in the PAS and details a number of proposed cultural heritage indicators and benchmarks. Adaptive management is a feature of this proposed system and the PAS notes that the NPWS will have responsibility for reviewing monitoring results with respect to visitor numbers and determining whether limits are required.

#### **4.1.4 Submissions**

Almost all submissions raised concerns with respect to the impact of the proposal on the cultural heritage values of the site. Just under 50% of submissions, for example, made comment with respect to protecting the significance of the place, although it is noted that the scope of what was considered significant about the place varied between submissions. Only several submissions considered that the proposal would provide conservation benefits for the site.

Key themes identified in the submissions included:

- € concerns regarding the type and scale of the proposal (eg. accommodation or “hotel” operations) (20.4%);
- € impacts associated with the restaurant in Building A6 (12.2%) and the introduction of ensuites into accommodation buildings (12.2%);
- € public access, including both potential limits on the ability of people to access the site and concerns with the proposed visitation levels (21.2%);
- € funding of conservation works (5.7%); and
- € consistency with the adopted conservation management plans (3%).

A sub-theme to emerge during the submissions analysis (Appendix 9) was the notion of preserving the site as it currently is, with no change or only minimal or small scale use (such as continuation of the existing conference centre).

The five submissions on the proposed reconstruction of P22 and H1 also raised several specific concerns. Key issues included:

- € general support for the reconstruction of both buildings, but only in their original external and internal forms;
- € lack of detail regarding how the buildings are to be re-built and the proposed internal room layouts;
- € unclear whether the new accommodation building (P22) will include ensuites;
- € H1 should only be used for interpretation, other uses such as functions are unsuitable;
- € caution should be exercised in approving any works to the site until long-overdue conservation works are carried out on all extant buildings;

- € reconstruction should only be permitted if it is in accordance with the Burra Charter;
- € introduction of other new buildings adjacent to P22 is unjustified; and
- € details of internal plans should be made available for comment when they are finalised.

#### **4.1.5 Commission of Inquiry findings and recommendations**

The Commission made seven key findings and recommendations with respect to cultural heritage (this includes changes to and use of buildings, structures and landscapes and interpretation):

1. the Commission is not persuaded that the site should be conserved as a 'museum', taking into account the DACMP policies which state that continuing occupation of the site and its buildings is a key means of interpretation [10(a)];
2. the significance and intactness of the boiler room (small room) in Building A6 warrants its dedication for interpretive use only. The pump room could be used for a restaurant [10(b)];
3. a museum should be located in the Wharf Precinct with admittance by way of a nominal charge to visitors. Other special theme museums could be established within the Station [10(c)];
4. reconstruction of Buildings P21, P22 and P23 should be subject to a separate application and supported by market research indicating demand for such facilities for the Education Centre [10(d)];
5. the proposal to fully sample Buildings P1 and P2 and use of Building P6 as a prototype adaptation is satisfactory. Further staging and approval requirements as sought by NSW Heritage Council and Planning NSW would introduce an element of uncertainty in planning approval, if granted, as to the scope of approved development [10(e)];
6. Building H1 should be reconstructed as it is one of the most important buildings for interpretation of the site [10(f)]; and
7. the proposed interpretive tour programs should be amended to enable increased viewing of heritage buildings having regard to the historical use and in particular internal space, fabric and fittings (14).

A number of supplementary findings and recommendations with regard to cultural heritage matters, including recommended conditions of planning approval, were also made by the Commission. The determining authorities' consideration of these matters is detailed in Table 5 and reflected in the approval conditions for the activity.

#### **4.1.6 Discussion and conclusion**

The determining authorities support the concept of adaptive re-use of the site, as provided for in the QSCMP, DACMP and the *NPW Act*. Preservation of the site in its current state is not considered necessary to protect the significance

of the place. Neither is it desirable, as substantial works are clearly needed to improve the condition of the place and prevent further deterioration.

Works are also needed to ensure that the historic resource can be adequately safeguarded, such as the provision of acceptable fire safety systems. In addition, there is a need to ensure that the community can continue to access the site, but that such access is both managed and meaningful so that potential impacts are minimised while interpretation messages are maximised. In this respect, the determining authorities note the emphasis in the DACMP regarding the interpretive role of continuing accommodation functions at the site.

The determining authorities acknowledge that a balance needs to be achieved between the various conservation, use, access and interpretation objectives for the site. It is clear that the community has very strong views regarding the need to protect the significance of the site and this is also noted by the determining authorities.

The proposal presented in the PAS represents a marked improvement from the original proposal in the EIS, with respect to impacts on cultural heritage. The co-proponents have made important revisions to reduce likely impacts, including the deletion of car parks, whole sampling of buildings P1 and P2 and an array of changes associated with the conservation of fabric and items in individual buildings and areas of the site. The co-proponents have also adopted the concept of free access community days and have lowered the proposed site visitor capacities.

With respect to the reconstruction of P22 and H1, the determining authorities are generally satisfied that sufficient justification has been provided by the co-proponents and that reconstruction will support retention of the significance of the place. It is noted that the six submissions received by the Heritage Council on this matter all supported the reconstructions, but generally only on the basis that the buildings be reconstructed in exactly their original external and internal form. A number of the submissions also emphasised that interpretation should be the sole use for a reconstructed H1.

The determining authorities consider that the detailed designs for reconstruction of P22 and H1 should be the subject of a further approval process and this is addressed in the conditions (condition 23). The determining authorities are not convinced that the internal layout of the buildings needs to exactly duplicate the original layout. There may be opportunities as part of the reconstruction process to serve other legitimate purposes for the site (eg. bathroom facilities in P22 and artefact storage in H1). Such options may reduce the need for such facilities to be provided in other extant buildings where the impacts on fabric may be too great. In relation to H1, it is noted that the Davies (2002b) report suggests that the uses of the building should be for interpretation, but that there is an opportunity to provide a controlled environment in part of the building for artefact storage and display. Davies (2002b) also indicates that minor provision for the servicing of functions could be introduced.

Having considered the range of likely impacts associated with the proposal, the mitigation measures proposed and the provisions of the QSCMP and DACMP, the determining authorities are generally satisfied that the proposal is capable of being undertaken without impacting on the cultural heritage values

to the extent that the overall significance of the place is diminished. In reaching this conclusion, the determining authorities nevertheless consider that conditions will be required to cover various aspects of the proposal, as follows:

- € various whole-of-site or whole-of-precinct plans and strategies will need to be developed and/or finalised, such as the landscape plan, a security plan and an internal fitout plan;
- € a number of specific issues will need to be resolved at the detailed design stage, such as the reconstruction plans for H1 and P22 and the design of the Funicular stairway (Schedule 3 of the conditions of planning approval);
- € the staging of adaptation works should be clearly linked to the delivery of conservation works, with the stages of works only proceeding once specified outcomes have been achieved;
- € a comprehensive conservation works program, incorporating all conservation works for the site, shall be prepared;
- € the undertaking of specific detailed works will be assessed and approved via a clearly defined process;
- € a Heritage Advisor will need to be appointed to provide expert input into the detailed work plans and whole-of-site plans and strategies;
- € appropriately skilled contractors and specialists should be employed to undertake works, and receive suitable site-induction training;
- € vehicle access is to be restricted to defined areas of the site and controlled by means of barriers, traffic-calming devices and car parking arrangements;
- € fire safety systems are to be upgraded as a matter of priority; and
- € the mechanisms and indicators to monitor impacts on cultural heritage will need to be refined and included in the final integrated monitoring program.

These matters are addressed in the conditions of approval and are critical to ensuring that the cumulative impacts of the proposal on cultural heritage remain within an acceptable range.

For a similar reason, the determining authorities are of the view that some elements of the proposal should not proceed and are therefore recommended for refusal (Schedule 2 of the conditions of planning approval). Such elements include: downsizing of the concrete stormwater pipe; removal of power poles; alterations to some buildings; and construction of a new gravel path from P12 to the top of the Funicular stairway.

**Table 5 - Commission of Inquiry outcomes – cultural heritage**

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
<u>Use and Interpretation</u>						
€	No need to restrict conference and function activities as proposed by PNSW consent conditions, providing the activities are permissible under EP&A and NPW Act.	121			The determining authorities suggest that the original rationale for this condition recommended by PNSW may not have been fully understood by the Commission. Any proposed activity on lands reserved or dedicated under the NPW Act must be permissible under the Act, as well as the EP&A Act and any other relevant legislation. Nevertheless, the determining authorities note that in the time since the EIS was exhibited and the COI concluded, amendments to the NPW Act (including provisions that facilitate the adaptive re-use of historic buildings) have been passed by the NSW Parliament and enacted. On this basis, the determining authorities agree that there is now no longer a need to include specific restrictions on the proposal as proposed in the draft PNSW conditions. However, a condition is recommended to ensure the undertaking of the activity is consistent with the NPW Act.	24
€	Finalise the Interpretation Plan within 6 months of approval as part of the EMP. The final Plan shall address various specified matters.			15.6	The determining authorities agree and have recommended an appropriate condition.	100
€	All interpretative activities should be undertaken in accordance with the plan.					
€	Use of A12, A7 and A8 for special events should be subject to approval of the QS Reference Group (QSRG).	78			The determining authorities concur with the general principle expressed by the Commission that any proposals to hold special events on site should be subject to a consultation process and endorsed by the relevant authorities. The determining authorities do not consider it necessary to list specific buildings or areas within the site that require approval for special events; rather, that such approval requirements should apply to all special events. The role of the proposed QSRG is discussed in Section 5.	127
€	P17 – use should be addressed in Interpretation Plan	82		15.6.1	The determining authorities consider that interpretive opportunities for these buildings can be considered in finalising the Interpretation Plan for the site.	100
€	A18 & A24 – interpretation opportunities should be examined	95				
€	Interpretive tour programs should be amended to enable increased viewing of heritage buildings having regard to historical use and internal space, fabric and fittings.	65	14		The determining authorities agree with the Commission that adequate viewing opportunities of heritage buildings on the site should be provided to visitors as part of the interpretive tour program. The determining authorities consider that this issue can be addressed during finalisation of the Interpretation Plan for the site.	100
€	At least one "authentic room" in each of the 1st and 2nd class area, and Buildings P3, P4, P8, P10a, P10b and P36 should be dedicated for interpretive tour purposes.	65, 86, 87, 89	14		The determining authorities agree with the Commission that access to 'authentic rooms' in the 1 <sup>st</sup> / 2 <sup>nd</sup> Class Precincts should be provided for interpretive purposes and note that the co-proponents conditionally agree also. This is addressed in the recommended conditions of approval.	100
€	Buildings identified for uses associated with the Environmental and Cultural Study Centre must not be used for other purposes, except for interpretation, and approved future use of P27.			7.1	The determining authorities generally agree with the intent of the Commission and have included an appropriate condition.	25
€	Use of P27 for functions and meetings should be	65		7.1	The determining authorities note that the co-proponents agree that Building P27 should be primarily used for educational	25



ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		by
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended determining authorities	
secondary to education and interpretive use.							
€ Re-use of P27 is ok subject to no permanent subdivision of the room	83				and interpretive uses and this is reflected in the PAS.		
€ P14-16 should be available for tours when not in use for education purposes.	65				The PAS states that the primary purpose use of P14-16 will be student accommodation and that it will be an interpretive stop on the tours. No specific conditions are warranted.	No condition warranted	
€ One dormitory in reconstructed H1 should be established for interpretive tour purposes. A second dormitory could be for function/meetings and storage.	65				The determining authorities note that the PAS generally accords with the Commission's views.	No condition warranted.	
€ H7, H8-H11 – organised tours should be able to appreciate the layout and design of the Block and not be restricted to periphery of this area.	93				The determining authorities agree that the Isolation Precinct should be available for interpretive purposes by guided tours, and note that two tours – the Quarantine Explorer Tour and Ghost Tour – would pass through this Precinct. Given the relatively small size of the building complex and that access between buildings is generally by way of wooden verandahs, the determining authorities are concerned that greater tour group access within this block may directly conflict with its proposed use for accommodation, particularly in terms of noise and given its potential use by people wanting a more isolated and quiet experience. The determining authorities are satisfied that a general understanding of the layout and design of this complex can be gained by passing through the Precinct, rather than directly accessing this block.	No condition warranted.	
€ Opportunities for theme museums across the site should be considered	64				The determining authorities agree with the Commission on this issue, and consider that the final Interpretive Plan is the appropriate mechanism for defining the range of tools to be utilised to interpret different elements of the site.	100	
€ Commission disagrees with proposed relocation of museum to H1.	79				The determining authorities understand that one of the primary functions of the museum is to store and display moveable heritage items, including archival material. As noted above, the determining authorities do not consider that viewing of this material is essential to gaining an understanding of the site. Further, issues regarding security and protection for moveable heritage items need to be considered. It is potentially easier to control visitor behaviour and numbers within the museum if this building can only be visited as part of a guided tour. For these reasons, the determining authorities consider that it is acceptable to relocate the proposed museum to H1, providing that sufficient interpretive materials are included in the Visitor Centre in A14-17.  Refer also to Table 8	100	
<b>Reconstructions</b>							
€ P22 supported in-principle, but subject to separate application and market research demonstrating demand	80, 82	10(d)	15.4.1		The Commission's views with respect to the proposed reconstructions are generally supported by the determining authorities, with minor exceptions:	22-23	
€ P21 & P23 – same as above, subject to archaeological investigation and clear differences in design (ie. not identical)	83-84				€ the determining authorities do not agree that the reconstruction of Building P22 should be based on demonstrated market demand. Use of this building formed an original part of the proposal (prior to its destruction by fire), and both the reconstruction and use of P22 have been adequately justified by the co-proponents; and		
€ H1 supported. Archaeological investigation should occur prior to reconstruction. Reconstruction shall maximise the use of remaining fabric.	92	10(f)	15.4.2 & 15.4.3		€ the concept of reconstruction forms part of the proposal and section 60 applications dealing with the detailed design of Buildings P22 and H1 are to be submitted to the Heritage Council at a later stage. The determining authorities therefore do not consider that a separate application is required for these buildings, but agree that the final design plans and archaeological assessment will need to be submitted for endorsement.  It is noted that the advice from the Minister for Planning to the determining authorities (as per s.114 of the EP&A Act) indicates that the reconstructions proposed are acceptable subject to approval of the detailed drawings. The Minister also indicates that the reconstruction of P21 and P23 should only occur if adequate market demand for accommodation associated with educational uses can be demonstrated.  In forming the above views, the determining authorities have considered the reports prepared by Davies (2002a & 2002b)		

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		by
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended determining authorities		
					regarding options for the fire-damaged buildings. See also Section 4.1.6		
<u>Inscriptions</u> € Inscriptions fencing should avoid obtrusive visual impacts. Proposed works to inscriptions should be subject to Inscriptions Management Plan prepared in consultation with the Heritage Council. Plan should form part of EMP.	74-75, 79				The need for an Inscriptions Management Plan, identified by the Commission, is supported by the determining authorities. Condition 95 is recommended in response to this. Issues such as the design of the inscriptions fence and lighting can be addressed as part of this plan. Providing that any relevant strategies identified in the IMP are reflected in the EMP where necessary, the determining authorities consider that the actual inter-relationship of these documents is a matter for the co-proponents to determine.	95	
<u>Cemeteries</u> € A CMP should be prepared for the 3 cemeteries. CMP should address markers, headstone, interpretation, etc. CMP should be prepared in consultation with the Heritage Council, form part of EMP and be approved by QSRG.	79, 80-81				The determining authorities support the general thrust of the Commission's comments regarding an integrated approach to cemetery management. However, it is considered that the outcomes being sought by the Commission could be achieved in an alternate way. Firstly, it should be noted that the 3 <sup>rd</sup> Cemetery is located on the School of Artillery land, managed by the Commonwealth and therefore outside the lease area and boundary of Sydney Harbour National Park. Use of the 3 <sup>rd</sup> Cemetery is also outside the scope of the present proposal. Accordingly, the determining authorities do not have the statutory power to require the co-proponents to prepare a CMP that includes this cemetery. To address the Commission's concern regarding the management and interpretation of this cemetery, condition 30 is proposed.  The determining authorities consider that the current QSCMP and DACMP provide an adequate policy framework for the 1 <sup>st</sup> and 2 <sup>nd</sup> Cemetery, and thus an additional CMP for these cemeteries is not required. However, it is agreed that the proposed treatment of these cemeteries requires further refinement to ensure consistency with these policies. This could be effectively achieved through the Heritage Landscape Management Plan, to be endorsed by the DEC and the Heritage Council, and through the development of an access strategy for the 2 <sup>nd</sup> Cemetery. Accordingly, conditions 91-93 & 124 are recommended.  The role of the QSRG is discussed in Section 5 of this report.	30, 91-93, 124	
<u>Accommodation &amp; ensuites</u> € Retention of P1 & P2 should occur for the life of the project (ie. no conversion at a later date)  € Prior to any works associated with the conversion of bedrooms in accommodation buildings a sample adaptation of P6 must be completed to the satisfaction of QSRG.  € Conversion of rooms after P1 and P2 shall be subject to the approval of QSRG.	86		15.5.2  15.5.1 15.5.2		The determining authorities agree with the Commission's view that these buildings should be retained as a sample of the type of accommodation provided within the First Class Precinct for the life of the approval. The institutional style of accommodation at the Quarantine Station, together with the class distinctions evident in accommodation facilities, are essential components of the cultural significance of the site. The ability to experience the living conditions during the time of quarantine use is a key aspect of the Quarantine Station experience. The DACMP clearly requires that whole buildings and groups of accommodation rooms are sampled across the site. Adaptive reuse of the site must be based on conserving the site's significance in perpetuity.  The determining authorities generally agree. It is noted that this is also mostly agreed by the co-proponents  The role of the QSRG is discussed in Section 5 of this report	19-21	
<u>Restaurant</u>							

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		by
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended determining authorities	
€ The level of intervention in A6 is excessive, especially placement of a mezzanine in the Boiler Room. But extension of the mezzanine in the pump room could occur if required.	65, 77	10(b)	15.8.3  15.8.4	<p>The determining authorities note that concerns regarding the proposed use of A6 as a restaurant, and the degree of adaptation works proposed, were raised in a number of submissions.</p> <p>The DACMP states that the building fabric is of high significance and should have minimal alterations. Services may be introduced if they do not impact on significant fabric. On this matter, the determining authorities consider that the proposed installation of a false floor to be an acceptable method for achieving this outcome.</p> <p>Food service, preparation and dining are considered acceptable uses by the DACMP. However, key policy requirements are that the spatial quality of the building is retained and that uses must have an interpretation component.</p> <p>Like the Commission, the determining authorities also note that the QSCMP indicates there are restricted options for the alteration of buildings to service new uses due to potential fabric impacts. According to the QSCMP (CAR Policy 1) adaptation will involve the minimum amount of change necessary and such changes should be "substantially reversible".</p> <p>As an additional consideration, the determining authorities note the practical challenges of finding a location on-site that is robust enough to deal with the volumes of visitors expected and the demands of contemporary food handling requirements. Given the proposed focus of visitor activity in the Wharf Precinct, the location of a suitable site in this area is clearly a priority.</p> <p>On the whole, the determining authorities are satisfied that the use of A6 as a restaurant and café is acceptable from both an interpretive and pragmatic perspective. In addition, on the basis of the preliminary structural plans (dated 14 October 2002) and further information provided by the co-proponents (dated 31 October 2002), the determining authorities are also satisfied that the mezzanine and other proposed restaurant layout is capable of being undertaken without a major adverse impact on the significance of the building or the site. In forming this conclusion, the determining authorities have given due attention to the principle of reversibility.</p> <p>The determining authorities do not, therefore, agree with the conclusions of the COI. Instead, it is considered that the proposed adaptation of A6 may proceed generally as proposed in the PAS, subject to conditions regarding detailed design.</p>	Schedule 3		
€ Relocation of the tank stand is acceptable if it inhibits adaptation for new use.	77		15.8.3	<p>The determining authorities agree and recommend accordingly.</p>	Schedule 3		
€ Consideration should be given to relocation of the toilets to the area between A6 and A7.	77			<p>The determining authorities have considered the policies of the QSCMP and DACMP with respect to this issue. There was no former building between A6 and A7, and thus any structure would be new to the site. The QSCMP (p.263) clearly states that no new substantial buildings should be introduced into the developed area of the Quarantine Station. Reconstruction of former buildings is permitted, subject to strict criteria. There is little support in either document for the construction of significant new structures in new locations, and as such the determining authorities do not support the Commission's proposal to construct toilet facilities in this location. In reaching this view, the determining authorities have also taken into account the need to examine options for limiting interventions in Building A6.</p>	No condition warranted.		
€ Additions would be subject to the approval of QSRG	77			<p>The determining authorities consider that further detailed building plans and documents should be submitted to the Heritage Council and DEC for approval, rather than the QSRG. The rationale for this is contained within the discussion below regarding the composition of the QS Community Committee (Section 5).</p>	No condition warranted.		
€ Outdoor eating area is not to extend beyond northern alignment of A6. A shade structure may be provided.			15.8.1 & 15.8.2	<p>The determining authorities note that the PAS proposes to limit the outdoor eating area and provide shade structures, and thus generally accords with the Commission's recommendations. The determining authorities consider that this approach to minimising visual impacts is acceptable.</p> <p>Given the presence of Coral Trees in this area and potential safety risks, the determining authorities consider that such trees should be the subject of regular inspection and maintenance and have included a condition accordingly.</p>	Schedule 3		
					Schedule 3 & 160		

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		by
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended determining authorities	
<b>Structures, fabric and landscapes</b>							
€ The fence to the 1st class area should appear obviously new and not re-establish segregation	90			The determining authorities support the Commission's view with respect to fencing in the First Class Precinct, and consider that this is a design issue which can appropriately be dealt with in the Heritage Landscape Management Plan.		91	
€ Proposals for fencing (height/style) in the road junction leaving the Wharf Precinct should be outlined in a Landscape Management Plan and approved by QSRG.	80		15.7.1(f)	The determining authorities concur with the Commission regarding use of the Heritage Landscape Management Plan to refine the design of proposed symbolic fences. It is recommended that this plan be endorsed by the DEC and Heritage Council, rather than the QSRG. The reasons for this are discussed in Section 5.			
€ Signs should be detailed in the Landscape Management Plan and consistent with the final Interpretation Plan.	80			The determining authorities generally agree with the Commission that the text, design and location of signage needs to be finalised. Rather than incorporating this into the Heritage Landscape Management Plan, the determining authorities recommend that a site-wide plan be prepared for all outdoor visitor infrastructure, to include waste receptacles, signs and lighting. In doing so, the determining authorities are drawing a distinction between the management of the existing and former cultural landscape and the introduction of new landscape elements.		112	
€ A Landscape Management Plan is to be prepared in consultation with the Heritage Council and NPWS, to form part of EMP and submitted for PNSW approval in 6 months. The plan should address various specific matters.	132		15.8.7 15.7	The determining authorities generally concur with the Commission's recommendations regarding the Heritage Landscape Management Plan, with the exception of the following: € the plan should be endorsed by the DEC and the Heritage Council, particularly as heritage expertise primarily lies with the Heritage Council rather than DIPNR and the plan has a strong heritage focus; € the plan does not need to form part of the EMP, providing that any relevant strategies identified in the HLMP are reflected in the EMP where necessary. The practical inter-relationship of these documents is a matter for the co-proponents to determine; and € the timeframe for completion of the plan should be 18 months. Given the breadth of issues that the plan is required to addressed, this is considered to be a more reasonable timeframe. Controls are also proposed in the conditions to ensure that landscape works are not commenced prior to endorsement of the plan.		91	
€ the progress of works under the plan shall be reported annually in the EMP report.							
€ the plan should be reviewed every 5 years.							
€ An independent review of structural adequacy of the wharf, including underwater structural and pest inspection, is required. Consultant to be approved by PNSW.	163, 174	17(b)		The determining authorities agree with the Commission's view on the need for an independent review of the structural adequacy of the wharf. It is considered that this should be provided to the Waterways Authority, as the statutory authority with responsibility for management of the seabed, for endorsement prior to the commencement of any works associated with the wharf or commencement of the ferry service. Given the role of the Waterways Authority in approving the review, it is considered unnecessary for DIPNR to approve the appointment of the consultant.		Schedule 4 & 42	
€ Duckboard should be deleted.	66, 140			The co-proponents have deleted this from the proposal.		No condition warranted.	
€ Proposed stair over funicular is not suitable, having regard to the original use, archaeological and visual significance of the ramp. Access between 1st class and Wharf Precinct will have to be obtained by alternative means.	78			While the determining authorities share the Commission's concern regarding the potential visual and archaeological impacts of the proposed funicular, it is considered that the proposed adaptive re-use of this route is acceptable. In reaching this conclusion, the determining authorities have been guided by the DACMP policies (specifically 13.2.13 and 13.3.33-41), which state that an appropriate reuse for the corridor would be as a pedestrian path system, providing that it remains within the width of the original corridor, is identified along its entire length, supports its unique character and occurs consistently across the entire system, or entire sections of the system. The DACMP also indicates that encroaching vegetation should be trimmed back along its entire length to encourage the perception of the corridor as a path system.  The determining authorities are satisfied that the proposed re-use will provide adequate interpretive opportunities for understanding the original funicular system, and that this can be addressed both through further detailed design of the proposed stairway and within the Interpretation Plan. The requirement that re-use occur across entire sections of the system was not addressed in the EIS, and will need to be considered. With respect to visual impacts, it is noted that the original route was a cleared corridor, and thus visible from the wharf and presumably the water. The additional visual		Schedule 3	

ISSUES (as per COI report)				SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended by determining authorities	
				impacts that may result from a structure over the existing funicular could be reduced by re-designing the proposed stairway in terms of width, number and scale of landing platforms and materials (eg. metal rather than wood). Archaeological investigations would be required in further developing the design of the walkway, and are a standard requirement of lodging an application for construction works.			
€ Tennis court should retain soft surface and avoid fencing.	90			The determining authorities generally concur with the Commission's view regarding the tennis court, and note that this accords with the DACMP policy. It is recommended that treatment of the tennis court be addressed through the Heritage Landscape Management Plan.		91	
€ The croquet court is supported on condition that no archaeological deposits are disturbed.	90			The determining authorities generally concur with the Commission's view regarding the croquet lawn. It is recommended that treatment of the croquet lawn be addressed through the Heritage Landscape Management Plan.		91 & Schedule 3	
€ A1 – dispensary and built-in desks to be retained	94			The co-proponents have agreed and indicated this matter will be dealt with as part of the detailed design process. The determining authorities also concur with the Commission's views.		No condition warranted	
€ A2 – pergola and courtyard not acceptable	94		15.9.7	The PAS indicates that the pergola has been deleted, but it is not clear whether the courtyard remains part of the proposal. Table C-6 indicates that it is still proposed, but Appendix 1 suggests it has been removed. The determining authorities consider that appropriate design outcomes for this area, that are consistent with the landscape values of the site, are capable of being achieved and are best addressed as part of the Heritage Landscape Master Plan. This would include examination of options for the entry area, such as a courtyard or reversible deck, and investigation of disabled access requirements.		91-92 & Schedule 3	
€ A20 – further consideration needed in the design, upgrading and sampling	95			The co-proponents have agreed and indicated this matter will be dealt with as part of the detailed design process.		Schedule 3	
€ A23 – brick floor should not be removed.	95			As above.		No condition warranted	
€ A24 – retention of internal fabric and fittings.	95			The co-proponents propose to retain the internal fabric and fittings.		No condition warranted	
€ A28-29 – no objection to modification and use subject to retention of as much original fabric as possible, storage of removed materials and sub-floor archaeological assessment.	97			The determining authorities agree and have included an appropriate condition.		86(c), (d) & Schedule 3	
€ Staff cottages – no objection subject to retention of identified significant items.	97			The determining authorities note the Commission's views. The conditions specify a number of proposed changes to these buildings that are either not approved or approved subject to resolution of design issues.		Schedules 2 and 3	
€ P27 – reuse as a meeting room etc. is acceptable providing there is no permanent subdivision of room.	83			The PAS has no proposal to subdivide the rooms within P27		No condition warranted.	
€ P28/29 – proposed refitting is subject to QSRG approval prior to change; retain as many original fittings as possible.	84			The determining authorities agree with the need to retain significant fabric in P28/29 and have addressed this matter in the conditions of approval.  The role of QSRG is discussed in section 5.		Schedule 3	
A14-17							

ISSUES (as per COI report)				SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended by determining authorities	
€ More luggage racks should be retained in the 2 theatres. Removed racks should be securely stored.	74		15.3.6	The determining authorities agree with the Commission's view that a greater proportion of luggage racks should be retained if possible. Appropriate storage of removed fabric (eg. luggage racks) is to be addressed in the Moveable Heritage and Resources Plan.		86(c), (d) & Schedule 3	
€ No opening from other 'waiting room' to proposed visitor centre				The co-proponents have agreed to have no opening from the waiting room to the visitor centre.			
P14-16						31 & Schedule 3	
€ bathrooms must not be changed, except for maintenance and repair.	81			The determining authorities have given careful consideration to the DACMP policies with respect to adaptation of bathrooms in this building. The DACMP clearly states that any use of the building must include the use of existing bathrooms (as opposed to introducing new ones) and that the early fabric of the building is significant and should be retained. Options for acceptable alterations to the bathrooms to allow ongoing use are listed, clearly suggesting that some alteration to bathrooms would be acceptable as part of the re-use of the building. While concurring with the Commission's general view that intervention of the bathrooms should be minimised, the determining authorities consider that some alteration of bathrooms, beyond maintenance and repair, is acceptable. It is recommended that further detailed design of the bathrooms be undertaken as part of the application for construction works for this building and that an approach to sampling and adaptation be prepared during Stage 1 of the project.			
€ Original fabric to be retained to QSARG satisfaction				The role of QSARG and mechanisms for community input are discussed in Section 5.			
S9						Schedule 3	
€ mitigative measures outlined in the Heritage Impact Statement should be approved by QSRG. Building should not be over-restored.	81			The determining authorities note the policies of the DACMP with respect to this building, and the need to retain significant known early fabric. To address this and the concerns raised by the Commission, the determining authorities recommend that further research into the building be undertaken prior to undertaking any works. Such information, and any works proposed, would be submitted to the Heritage Council and DEC for approval, rather than the QSRG.			
€ The rationale for this is contained in the discussion in Section 5 regarding the composition of the QS Community Committee.				The rationale for this is contained in the discussion in Section 5 regarding the composition of the QS Community Committee.			
€ All existing fabric and materials to be removed shall be salvaged, recorded and, where practicable, reused on site.			15.3.6	The determining authorities agree. It is noted that this is also agreed by the co-proponents.		86	
Conservation Work Program							
€ Within 6 months of approval, a Conservation Works Program shall be prepared in consultation with the NPWS and the Heritage Council.			15.3.1	The determining authorities generally agree with the need for a detailed Conservation Works Program. It is noted that this is also agreed by the co-proponents.		31-34 & 77-84	
€ No less than \$4 million shall be spent on conservation works identified in the CWP within 5 years.			15.3.2	In addition, it is noted that the advice from the Minister for Planning to the determining authorities (as per s.114 of the EP&A Act) indicates support for a mechanism to ensure the appropriate staging of works.			
€ The CWP is to be reviewed annually as part of the EMP.			15.3.3	In responding to this matter, the determining authorities have placed a high priority on ensuring that there is a logical sequence of works and that the pace of adaptation does not outstrip that of the conservation works. The determining authorities are also concerned to ensure that there is a clear definition of "conservation" works and that the highest priority of these are delivered in the most timely manner by the co-proponents.			
€ Every 5 years the CWP shall be comprehensively reviewed, to coincide with the 5 yearly independent audit.			15.3.4	The system for integrating and staging the undertaking of adaptation and conservation works is addressed in the conditions of approval. Measures are specified to ensure that certain outcomes are achieved before further stages of work commence. This includes the completion of the first comprehensive audit of the activity approximately half-way through the adaptation and conservation works.			
Bonding of works				The determining authorities have not specified an amount of expenditure to be allocated for conservation works as this may artificially constrain the works to be delivered. It is therefore considered more meaningful to identify the body of works to be delivered and the timeframes for these.			
€ Prior to the commencement date the co-proponents shall			15.3.5	It is noted that the co-proponents disagree with the proposed condition and consider that the securities provided in the		No specific	

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
	lodge with the Heritage Council a cash bond or bank guarantee to guarantee satisfactory performance and completion of works identified in the CWP.				lease should be sufficient. The determining authorities have considered this matter carefully. Given the comprehensive range of conditions to be applied to the proposal, including the controls on the staging and priority of works (conditions 31 and 80) that will ensure delivery of the conservation works, and noting that the Minister for the Environment is a co-proponent, the determining authorities consider that there is no need to require a bond or guarantee.	condition warranted.
	<b>Drawings and detailed information</b> € Within 6 months of approval, detailed drawings addressing design modifications for conditions 15.8.1 and 15.8.7 to be submitted to QSRG for approval. Relevant information should be included in the conservation works program. € Within 6 months of approval detailed drawings and information should be submitted for a range of listed elements.			15.8.8 15.8.9	The determining authorities agree that detailed plans and information will be required for a number of specific elements of the proposal prior to construction commencing. However, it is not considered necessary to require this work to be completed within 6 months. Instead, the detailed plans should be submitted in accordance with the staging of works across the site. The process for assessing specific works proposals is addressed in the conditions of approval. The role of QSRG and mechanisms for community input are discussed in Section 5.	35-40

## **4.2 Aboriginal heritage**

### **4.2.1 Context**

North Head was traditionally a place where Aboriginal people conducted burials and healing ceremonies, and engaged in the trade and exchange of goods (Darwala-Lia, 2001). A number of sites and places of Aboriginal heritage have been previously identified at North Head, and several possible new sites were recently located, some of which occur within the proposed lease area. Resources that were and continue to be used by Aboriginal people have also been recorded.

The QSCMP recognises that the Aboriginal heritage values associated with North Head are integral to an understanding of the significance of the place. It outlines a number of policies aimed at protecting these values and ensuring that the relevant Aboriginal organisations are involved in decision-making with regard to site management and the presentation and interpretation of information about Aboriginal cultural heritage. These policies are also reflected in the DACMP.

No surveys were undertaken specifically for the proposal, and the assessment relied on a broader study of North Head undertaken on behalf of NPWS (Darwala-Lia, 2001), and work by AMBS (2002a & 2002b) to develop management options for sites.

### **4.2.2 Proposal and likely impacts**

No recorded Aboriginal sites will be directly impacted by the proposal. However, there is potential for sites to be disturbed during renovation works, and during operation due to visitors straying off-track and visiting or inadvertently damaging sites. It is not proposed that Aboriginal sites would be visited as part of the regular tours, however the co-proponents indicate that there is provision for special interest tours to be run for Aboriginal heritage. The Draft Interpretation Plan proposes that Aboriginal heritage be interpreted with the involvement of the Aboriginal community.

The co-proponents also propose the involvement of Aboriginal people in the conservation of sites and the development of partnerships with Aboriginal people. During the COI the co-proponents advised that they were actively negotiating a Partnership Agreement with the Metropolitan Local Aboriginal Land Council (MLALC), and that the MLALC would be involved in all key management decisions regarding Aboriginal sites and archaeology. It is understood that an Agreement has since been finalised.

### **4.2.3 Proposed mitigation measures**

Key mitigation measures proposed by the co-proponents to prevent impacts on Aboriginal heritage include:

- € on-going communication with, and involvement of, the MLALC;
- € Aboriginal sites to be avoided during construction works, contractors to be briefed and equipment to be excluded from areas containing sites;
- € during operation, visitors will be managed to avoid impacts;



- € no interpretation of Aboriginal sites by non-Aboriginal people; and
- € implement a monitoring program to monitor site condition and potential impacts.

#### **4.2.4 Submissions**

46 submissions (4.2%) were made with respect to Aboriginal heritage. The key points raised in the submissions were:

- € impacts on Aboriginal heritage and sites with particular reference to burials;
- € failure of the EIS to include recommendations from the Darwala-Lia report (2001);
- € questions as to the adequacy of Aboriginal community consultation through the leasing process and EIS preparation; and
- € some submissions acknowledged that the proposal provides positive opportunities for increased participation by the Aboriginal community in managing the site and conducting educational activities.

#### **4.2.5 Commission of Inquiry findings and recommendations**

The Commission made four key findings and recommendations with respect to Aboriginal heritage:

1. the proposal as recommended by the Commission would not, on the evidence, adversely impact on 'identified' Aboriginal sites or significantly alter the 'ambient' of the Station, as there would be no major physical alteration of the site [11(a)];
2. an Aboriginal Heritage Conservation Management Plan (AHCMP) should be prepared and adopted as soon as practicable, and the studies recommended by Darwala-Lia (2001) should also be undertaken (either parallel with or following completion of the AHCMP). This should occur in consultation with the MLALC, identified Tribal Elders Corporations and Native Title Claimants [11(b)];
3. the MLALC should be represented on the Quarantine Station Reference Group to ensure Aboriginal community involvement in cultural conservation, monitoring and review of the environmental impact of the activity [11(c)]; and
4. consideration should be given to the establishment of an Aboriginal Centre and Museum on the site in discussion with MLALC [11(d)].

The determining authorities' consideration of these and other matters in the COI report is detailed in Table 6 and reflected in the approval conditions for the activity.

#### **4.2.6 Discussion and conclusion**

The determining authorities consider that the assessment of impacts on Aboriginal cultural heritage was not comprehensive. The assessment focused heavily on physical sites and did not address the full range of cultural values and associations that the place may have for Aboriginal people, nor how these may be impacted upon by the proposal. The assessment of physical sites relied on previous survey work and there clearly remains some uncertainty

about the number and location of sites recorded within the study area. The initial withholding of recommendations in the Darwala-Lia report from the public exhibition process did not assist the community's perception of a transparent assessment process, but is understandable given the sensitive nature of some of the information contained in that report. The withholding of this information occurred with the agreement of the MLALC.

Similarly, the determining authorities consider that consultation undertaken with the Aboriginal communities did not reflect contemporary best practice. The MLALC was the only Aboriginal group consulted with regard to the proposal, and no documentation was included in the EIS, or subsequently presented to the COI outlining the MLALC's views of the proposal<sup>21</sup>.

While the EIS indicates that no Native Title claims had been lodged over North Head at the time of EIS preparation, neither the EIS or PAS document made efforts to identify any other relevant stakeholders (eg. Elders groups, etc). This was also raised as an issue of concern in the public submissions and was highlighted in a submission to the COI from the Aboriginal Health and Medical Research Council seeking consideration of using the site for Aboriginal managed and delivered health activities. The Commission has made a specific recommendation regarding the need to identify and consult with relevant Tribal Elders and Native Title Claimant Groups.

Despite shortcomings with the Aboriginal cultural heritage assessment, and taking into account the findings of the Commission, the determining authorities consider that sufficient information is available to conclude that, overall, the proposal will not result in a significant impact on Aboriginal cultural heritage. In reaching this conclusion, careful consideration has been given to the type of cultural values associated with the place; the objectives and nature of the proposed activity; and the scope of mitigative measures proposed:

- € integrated planning for Aboriginal cultural heritage has been recommended in the Darwala-Lia (2002) report and by the Commission, and a suggested mechanism for achieving this is an Aboriginal Heritage Conservation Management Plan. As noted in Table 6 the determining authorities concur and recommend that such a plan be prepared for the Quarantine Station site, taking into account Aboriginal cultural values across the broader landscape;
- € consultation will be undertaken with MLALC regarding relevant aspects of the activity, which includes interpretive and educational activities and site management works. The Agreement with the MLALC indicates the co-proponents' commitment to working cooperatively on Aboriginal heritage matters. Conditions are proposed by the determining authorities to ensure on-going consultation with the Aboriginal community, and that all relevant Aboriginal stakeholders have an opportunity to provide input into the carrying out of the activity. The determining authorities support the intent of the Commission's recommendation for Aboriginal representation on the community consultation panel;

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<sup>21</sup> although it is acknowledged that the MLALC itself chose not to present submissions on the EIS or to the COI.

- € physical sites will not be directly impacted by works, will not be generally accessible to the public, will only be accessed in consultation with the Aboriginal community and will be regularly monitored. It is noted that the Darwala-Lia (2001) report recommended a substantial buffer around known sites. The determining authorities consider that the principle of buffering sites can be achieved through appropriate conditions of planning approval, including requirements for fencing in the Wharf Precinct (condition 76). Other conditions of planning approval are proposed to ensure that appropriate assessment occurs prior to subsurface works, and that known sites are accurately located (via an audit), conserved and managed; and
- € other cultural values have been broadly identified for North Head, and include healing and burial practices, resource use and trade. There are opportunities to protect and interpret these values (as appropriate) through the operation of the activity (eg. tours, educational activities, special events), providing that the co-proponents work cooperatively with the relevant Aboriginal stakeholders in such activities, and are guided by and respect the views of Aboriginal stakeholders. As noted in Table 6, the determining authorities consider that the provision of an Aboriginal centre on the site is a matter for discussion between the co-proponents and the relevant Aboriginal stakeholders.

**Table 6 - Commission of Inquiry outcomes – Aboriginal heritage**

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		Condition(s) recommended by determining authorities
	Page No.	Rec. #	Condition#	Comment/Response			
Aboriginal heritage							
€	Urgent need to prepare and adopt Aboriginal heritage CMP					70	
€	Once prepared, DACMP and CMP to be reviewed.	108-111	11(b)	15.2.1	The determining authorities are supportive of the Commission's recommendation with regard to the preparation of an Aboriginal heritage CMP, and consider that this would be a useful mechanism for documenting all Aboriginal cultural heritage values associated with the site, and provide a policy framework and strategies for managing these values.  It is unclear whether the Commission proposes that such a plan would be prepared for the whole of North Head, or just the Quarantine Station. Ideally the plan would encompass all landscapes within North Head, as these would have been used or occupied by Aboriginal people as a single system. However, North Head is managed by a variety of State and Commonwealth bodies; and the use of lands beyond the lease area is outside the scope of the present proposal. Accordingly, the determining authorities do not have the statutory power to require the co-proponents to prepare a CMP that includes all lands within North Head. The determining authorities therefore recommend that such a plan be prepared for the Quarantine Station site, taking into account Aboriginal cultural values across the broader landscape.  The determining authorities are of the view that the AHCMP can be incorporated into the QSCMP and DACMP during the next review of these documents.		
€	Metropolitan Local Aboriginal Land Council (MLALC) should be represented on the QSRG.	110, 192-193	11(c), 20	11.1	The determining authorities agree that Aboriginal community participation in on-going management of the site's Aboriginal heritage values, and in oversight of the activity, is crucial. The preferred model for on-going community participation is discussed in Section 5 of this report.	57	
€	NPWS to identify and consult relevant Tribal Elders and Native Title claimant groups.			15.2.1	The determining authorities share the Commission's view that a broad range of Aboriginal stakeholders should be consulted. The need to ensure that there is on-going consultation with the Aboriginal community, and that all relevant Aboriginal stakeholders have an opportunity to provide input into the carrying out of the activity is reflected in the conditions.	73-74	
€	A centre for Aboriginal people should be established on site, with the location subject to agreement of the Metropolitan Local Aboriginal Land Council (MLALC).		11(d)	15.2.1	While supportive of the principle behind the Commission's recommendation's on this issue, the determining authorities consider that this is a matter for negotiation between the co-proponents and the relevant Aboriginal stakeholders. This will ensure that the Aboriginal community has responsibility for defining the outcome that it wants with regard to future involvement in the activity, and that stakeholders in addition to MLALC have an opportunity to contribute to these discussions.		
€	Consider establishing an Aboriginal museum on site (as part of the proposed museum, or in a separate centre).				The determining authorities have a similar view regarding the proposed Aboriginal museum.		
€	No public access to sites unless agreed by the Aboriginal community and NPWS.			15.2.2	The determining authorities agree. It is noted that this is also agreed by the co-proponents.	75	
€	Within 6 months prepare a schedule of conservation works in consultation with the Aboriginal community and submit to QSRG for approval.			15.2.3 15.2.4	The determining authorities generally agree. It is noted that this is also agreed by the co-proponents.  The role of the proposed QSRG is discussed in Section 5.	71(g) & 72	
€	Prepare a report outlining the progress of conservation works in consultation with the Aboriginal community within 2 years of approval and every 5 years thereafter. The report shall be submitted to QSRG for review.						
€	An assessment of archaeological potential shall be			15.2.5	The determining authorities agree. It is noted that this is also agreed by the co-proponents. This matter is dealt with in the	37	

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
conducted prior to any ground disturbance. To be conducted by an appropriately qualified expert in consultation with the Aboriginal community.					recommended process for assessing detailed construction works.	

## 4.3 Flora, fauna and the marine environment

### 4.3.1 Context

The Quarantine Station site, North Head and the adjoining marine environment are home to a range of significant flora and fauna attributes. The biodiversity values of the area are an integral part of the overall significance of the place. These values are recognised in the primary statement of significance for the North Head Quarantine Station (NPWS 2000b) and in a number of the conservation policies (eg. GCP 12, GCP 16, and CPP 4). CARP 3.1 in the DACMP specifically requires that any proposed uses be compatible with all layers of understanding for the site, including natural heritage.

As noted in the QSCMP (NPWS, 2000b p.168) North Head has been the subject of numerous investigations, surveys and assessments. The biodiversity values of the area are further highlighted in key documents such as the Sydney Harbour National Park Plan of Management (NPWS, 1998 and recent amendments NPWS, 2003b), Draft North Head Planning Strategy (Clouston 1996) and on the Register of the National Estate listing.

The SIS notes that the Quarantine Station site contains two threatened flora species that could potentially be impacted by the proposal: *Acacia terminalis ssp terminalis* (Sunshine Wattle); and *Eucalyptus camfieldii* (Camfield's Stringybark). Areas at North Head, including sites within the Quarantine Station, are known to contain remnants of the endangered Eastern Suburbs Banksia Scrub (ESBS) ecological community. No draft or adopted recovery plans have been prepared for these individual flora species, however a draft Recovery Plan has been exhibited for ESBS.

In addition, the Quarantine Station site provides habitat for two endangered fauna populations. These are: the endangered Little Penguin (*Eudyptula minor*) population; and the endangered Long-nosed Bandicoot (*Perameles nasuta*). A Recovery Plan has been approved and adopted for the Little Penguin population (NPWS 2000a), while a draft Recovery Plan is currently being prepared for the Long-nosed Bandicoot.

In recognition of the significance of habitat in the area, critical habitat has been declared for the Little Penguin population (NPWS, 2002c). Although the EIS and SIS for the proposal were completed prior to the declaration, they were prepared on the assumption that critical habitat was likely to be declared and impacts on the Little Penguin population assessed accordingly.

The determining authorities are satisfied that sufficient information was provided in the SIS and other assessment documentation to evaluate the potential impacts on critical habitat. The actual declaration of critical habitat did not therefore necessitate the undertaking of further assessments by the co-proponents. In addition, as noted earlier, the Minister for the Environment has already granted concurrence to the proposal. In deciding to grant concurrence the Minister considered a report prepared by the NPWS in accordance with s.112C of the *EP&A Act*, which included discussion of the likely impacts of the activity on critical habitat.

The marine environment immediately adjoining the Quarantine Station is part of the North Harbour Aquatic Reserve. As a consequence, certain consultation

and concurrence requirements specified by the *FMA* have been fulfilled prior to any approval being granted for the proposal (refer Section 1). The Reserve includes a large variety of habitats and marine species. As noted in Section 1.3.6, no plan of management is currently available for the reserve.

The marine ecology of the area adjoining the Quarantine Station has been detailed in a number of recent assessment reports. These are summarised in the “Marine Ecological Aspects” report prepared by Marine Pollution Research Pty Ltd that accompanies the EIS (Appendix F, Volume 2). Of particular interest with regard to the current proposal is the distribution of seagrasses in the vicinity of the wharf, including *Zostera*, *Halophila* and *Posidonia* (strapweed).

Following exhibition of the EIS, further information regarding the biodiversity values of the site became available. This included:

- € the discovery of a single pair of Little Penguins nesting in the immediate vicinity of A6 (the proposed restaurant and outdoor eating area). This was the first time nesting Little Penguins had been observed in the area<sup>22</sup>;
- € the identification of ESBS as occurring within the site, especially in the vicinity of the proposed car-park CP5. As a result, the co-proponents prepared Section 5A assessments under the *EP&A Act* (the “8-part test”) and referred the activity to Environment Australia. As noted in Section 1, Environment Australia has advised that the activity is not a controlled action under the *EPBC Act*;
- € the completion of threatened fish species assessments in accordance with the *FMA*;
- € the undertaking of a Long-Nosed Bandicoot Population Census (Banks and May 2002);
- € as noted above, the declaration of Critical Habitat for the Little Penguin population; and
- € exhibition of a draft Recovery Plan for ESBS.

#### **4.3.2 Proposal and likely impacts**

The proposal has a number of components that have the potential to impact on native flora and fauna and the marine environment. Likely impacts are discussed in Chapters 10 and 11 of the EIS and in greater detail with regard to threatened species issues in the SIS. The co-proponents Submission in Reply to the COI provides further relevant information. In addition, the determining authorities sought and obtained independent specialist advice on threatened species matters (Banks, 2000 & Bali, 2000).

The potential impacts of the activity are both general in nature and specific to particular species or populations. Key potential impacts include:

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<sup>22</sup> they were subsequently unsuccessful in hatching chicks

- € increases in visitors to the site and movements of people across the site, particularly during periods of peak fauna activity;
- € increases in noise and light;
- € increases in vehicular traffic to the site and across the site, together with the re-introduction of active transport uses at the wharf;
- € construction of car parks (including changes to runoff patterns and volumes), paths, the Funicular stairway and road and stormwater system repairs;
- € removal of small areas of vegetation (eg. to construct car parks, undertake road repairs, and improve sight lines from A28-29 to the Hospital Precinct); and
- € potential increases in predator species attracted to the site.

There is considerable overlap between the possible impacts on the marine environment and impacts on other biodiversity values of the site and North Head. In particular, the concentration of activities in the vicinity of the wharf may generate noise, lighting and other impacts that affect components of both the marine and terrestrial environments. Similarly, the proposal could have adverse impacts on seagrasses as a result of the use of the wharf for ferry services (eg. propeller wash) or anchoring from vessels attracted to the site by the new uses (eg. restaurant).

#### **4.3.3 Proposed mitigation measures**

The co-proponents propose a range of mitigative measures that are intended to limit any potential impacts on flora and fauna. These range from measures that are generic to the management of the renovation and operation phases of the proposal, such as stormwater and erosion controls and management of human activities, to measures that are specific to particular threatened species or the marine environment. A linked program of monitoring and adaptive management measures to address possible impacts on the Little Penguin and Long-nosed Bandicoot populations is also proposed.

Some of the key mitigative measures include:

- € fencing of sensitive areas and tagging of threatened plant species to avoid impacts during renovation;
- € provision of a visitor shuttle bus;
- € installation of traffic calming devices and speed limits;
- € provision of barriers to restrict human access to Little Penguin habitat;
- € creation of additional foraging areas for Long-nosed Bandicoots behind buildings in the First Class Precinct;
- € implementation of predator (eg. fox) control programs, coupled with waste management techniques to limit attracting pest species to the site;



- € restricting construction activities to daylight hours;
- € on-going discussions with the Waterways Authority and NSW Fisheries regarding the management of private boat access to Spring Cove;
- € seagrass monitoring; and
- € no live amplified music.

In addition to these and other proposed mitigative measures, the co-proponents also propose to monitor key aspects of the proposal that may impact on biodiversity values. This would include monitoring of specific impacts associated with the Long-nosed Bandicoot and Little Penguin populations and the use of such information to determine whether further mitigative measures should be implemented. It is noted that the EIS proposed a number of specific adaptive management measures to be applied, such as curfews on vehicle access if Long-nosed Bandicoot road mortalities reach a specified trigger. However, the PAS proposes that the adaptive management program should first consider the source of the problem and target responses accordingly, rather than set the specific responses up-front.

The co-proponents have also made a number of other revisions to the original proposal presented in the EIS that have implications for flora and fauna. These include:

- € reductions in the total number of car parking spaces;
- € deletion of proposed car parks CP2 and CP3, but expansion of CP1 and CP5;
- € introduction of traffic barriers and calming devices;
- € provision of a shuttle or valet service for guests to and from the car-parks;
- € moving the outdoor eating area at A6 and providing a Little Penguin habitat fence in this area and barriers at the southern and northern (signage only) ends of Quarantine Station Beach.

#### 4.3.4 Submissions

Many submissions raised issues regarding potential impacts of the proposal on the natural environment. These are summarised below.

Issue raised	Number (% of submissions)
Long-nosed Bandicoots	79 (7.2%)
Little Penguins	124 (11.3%)
Bushland	22 (2%)
Seagrasses	19 (1.7%)
Other – references to general impacts on the natural environment not caught	131 (11.9%)

by the above specific categories	
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The key points raised in the submissions were:

- € loss of open grassed areas (Long-nosed Bandicoot habitat) through car-park construction;
- € increases in vehicle and pedestrian volumes;
- € increases in noise and light disturbance (especially around the wharf and the restaurant);
- € use of the access track to Store and Collins Beach;
- € operation of the ferry and impacts on Little Penguins and seagrasses (eg. propeller wash);
- € the extent of wharf repairs required and potential seagrass impacts;
- € impacts on bushland; and
- € adequacy of the monitoring program and proposed adaptive management measures.

Four detailed submissions provided extensive comment on issues regarding the Long-nosed Bandicoot, the marine environment and flora and fauna generally (Nos.60, 409, 856 & 1041). All four submissions highlighted concerns regarding the adequacy of the assessment undertaken and the scale of likely impacts. The Australian Heritage Commission (No.805) noted that it was generally satisfied with the assessment of natural heritage values and indicated support for the proposed amelioration and environmental management measures, on-going monitoring and application of an adaptive management regime.

#### **4.3.5 Commission of Inquiry findings and recommendations**

The Commission made four key findings and recommendations with respect to the natural environment, flora, fauna and the marine environment:

1. the Commission is satisfied that it is unlikely that the proposed activity would adversely impact on the 'endangered' Sunshine Wattle, Camfields Stringybark and the Eastern Suburbs Banksia Scrub, subject to preparation and implementation of the Commission's recommended monitoring and management strategy [15(a)];
2. that a dusk to dawn curfew be imposed on the proposed ferry service in order to remove a potential threat to the survival of the Little Penguins [15(b)];
3. that the proposed increase in vehicular movements within the Quarantine Station and along Darley Road would adversely impact on foraging Bandicoots notwithstanding proposed mitigative measures [15(c)]; and

4. an Environmental Management Plan should be prepared by the NPWS for the protection, control and regulation of the three beaches (Collins Flat, Store and Quarantine Beaches) and adjacent shoreline [21(b)].

A number of supplementary findings and recommendations with regard to the natural environment, including recommended conditions of planning approval, were also made by the Commission. The determining authorities' consideration of these matters is detailed in Table 7 and reflected in the approval conditions for the activity.

#### **4.3.6 Discussion and conclusion**

As noted above, the biodiversity and natural values of the Quarantine Station form an integral part of the site's significance. The proposal has the potential to impact on aspects of these values in varying ways and at differing degrees of intensity. In addition, the assessment of natural heritage impacts overlaps with other key components of the proposal, such as transport and access.

The QSCMP and DACMP both contain a range of policies that guide the conservation of the natural heritage values of the site. The Little Penguin Recovery Plan provides further guidance in relation to impacts on this population, in particular the need for any approvals issued for land in the vicinity to be "sensitive to the population, given knowledge of threats". The Recovery Plan also notes that the use of adaptive management techniques may be one possible avenue to reduce impacts (NPWS 2000a, p.27). Similar approaches are proposed in the draft Recovery Plan for ESBS, which also highlights the objective of enhancing and enlarging existing remnants through appropriate management (NPWS 2003a).

Consideration of the impacts of the activity on the marine environment is assisted by NSW Fisheries (1997, 1999) guidelines and the requirements of the *FMA*. The guidelines emphasise the need to give protected areas (such as aquatic reserves) priority consideration in the assessment of development proposals and suggest that only those developments that need to be located on the waterway should proceed (eg. wharves). The guidelines also stipulate that no impacts should occur on Strapweed (*Posidonia australis*) and Fish Habitat Protection Plan No.2 provides specific guidance on seagrasses. Comments provided by NSW Fisheries on matters regarding the marine environment have also been considered in the preparation of this report.

The objects of the *FMA* reflect both conservation and natural resource use imperatives. The determining authorities particularly note the objects regarding the conservation of fish and marine vegetation, the promotion of ESD and the provision of social and economic benefits for the wider community of NSW. The determining authorities also note that the declared purpose of an aquatic reserve is to conserve the biodiversity of fish and marine vegetation.

As indicated earlier, there is no management plan currently available for the aquatic reserve. However, the determining authorities are satisfied that the proposed activity as it relates to the aquatic reserve (namely the operation of the ferry, upgrading of the wharf and land-based uses such as stormwater management) is generally consistent with the uses permissible within the reserve and the objects of the *FMA*.

The determining authorities note the concerns expressed in a number of submissions regarding the adequacy of the assessment regarding impacts on the natural heritage values of the site. However, the determining authorities consider that there has been a sufficient level of assessment to enable an informed decision to be made regarding the proposal. With specific regard to the Long-nosed Bandicoot, the determining authorities have considered the outcomes of the most recent surveys (Banks and Hayward 2002) and note that the Commission's report included significant discussion regarding the size of the population. In particular, it is observed that the most recent approximation of the size of the population at 100 animals (Banks and Hayward, 2002) corresponds with the basic population scenario of 100 animals modelled in the earlier population viability analysis (Banks 2000).

In considering the range of potential impacts and appropriate conditions of approval the determining authorities acknowledge that a high priority should be afforded to the application of the precautionary principle. As noted in Section 4.14 of this report, a fundamental aspect of the precautionary principle is the adoption of a "risk averse" approach, with clear acknowledgment that placing constraints on any development approval is a valid option to achieve greater certainty of risks.

On the above basis, and after careful consideration of the activity and the mitigating measures proposed by the co-proponents, the determining authorities are satisfied that the potential impacts on flora, fauna and the marine environment can be adequately managed with the application of appropriate conditions of approval. The key recommended conditions of approval relating to flora, fauna and the marine environment are conditions 158 to 190 in Schedule 1 of this report. As noted above, there are overlaps with other recommended conditions of approval. Key other recommended conditions include: 120, 129, 138-39, 143-155, 202, 225 and 232-233.

In some cases the setting of appropriate conditions and safeguards is difficult given current lack of knowledge and uncertainties regarding the potential impacts of the activity over time. In the case of the Long-nosed Bandicoot population, for example, the population viability analysis (Banks 2000) clearly demonstrates the need to apply extreme caution given that any additional road deaths above current background levels will increase the risk of extinction. Indeed it is for this reason, and others specified in Table 7, that the determining authorities do not support the recommendation of the COI to impose a blanket dusk-to-dawn curfew on the operation of the ferry service, given the subsequent impacts this could have on vehicle traffic to the site.

A feature of the recommended conditions is therefore the implementation of an adaptive management approach that provides flexibility in responding to risks over time. While the proposal already includes some measures that reflect an adaptive management approach, it is considered that a more comprehensive and rigorous set of measures is required to safeguard the natural heritage of the site on an on-going basis. For this reason, the recommended conditions make provision for the regular review and revision of adaptive management measures so that new information (eg. from monitoring programs) can be taken into account and changes to the undertaking of the activity and the mitigative measures considered.

In addition, even after taking into account the above matters the determining authorities have formed the view that there is still the potential that the activity

is likely to significantly affect the endangered Long-nosed Bandicoot population and endangered Little Penguin population. This conclusion has been reached after consideration of the known threats to these populations, the PVA for the Long-nosed Bandicoot (Banks 2000) and the declaration of critical habitat for the Little Penguin. On this basis the determining authorities (Heritage Council and Waterways Authority) have sought and obtained the concurrence of the Minister for the Environment prior to granting final approval for the activity, in accordance with section 112C of the *EP&A Act*.

As noted earlier, the determining authorities are also obliged by the provisions of the *FMA* to either consult with or seek the concurrence of the Minister for Fisheries and Director of Fisheries. Those processes have been completed.

**Table 7 - Commission of Inquiry outcomes – flora, fauna and marine environment**

ISSUES (as per COI report)		SOURCE		DETERMINING AUTHORITY REVIEW		
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>Flora - general</u>					160	
	€ monitoring and management strategy for Sunshine Wattle and Camfields Stringybark to be prepared as part of EMP, for approval by NPWS.	127-128	15(a)		The determining authorities generally agree with the Commission's conclusion that the activity is unlikely to significant impact on threatened flora species or endangered ecological communities. Given this, it is not considered necessary to prepare separate monitoring and management strategies for the Sunshine Wattle and Camfields Stringybark, especially as recovery plans will eventually be prepared for these species and noting that the co-proponents have already proposed measures to prevent impacts.	
	€ periodic surveys to be carried out by NPWS.	129			Nevertheless, the determining authorities have included conditions that prevent the removal of hollow-bearing trees or threatened flora . This includes a requirement that areas proposed for vegetation removal be surveyed to enable these features to be identified for retention.	
	€ targeted survey of Camfields Stringybark required	131			With regards to the issue of compensatory planting, the determining authorities agree that, given its endangered status, any removal of Eastern Suburbs Banksia Scrub as a result of construction of CP5 should be offset by habitat regeneration works elsewhere on the site. This is consistent with broader government initiatives on development offsets and is a principle that has been applied in other recent approvals under the EP&A Act.	154(h)
	€ compensatory planting required for loss of native vegetation					
<u>Fauna – Long-nosed Bandicoots</u>					159	
	€ any temporary construction fencing should be designed so that access is made available overnight to prevent Bandicoot movements being impeded.			15.14.1	The determining authorities generally agree with the intent of the Commission and have included relevant conditions of approval.	
	€ within 3 months of approval traffic calming devices shall be provided up to the barriers shown in Illustration 20 of the DACMP, and signposted with speed limits and Bandicoot crossing signs.			15.14.2	It is noted that the co-proponents have included traffic calming measures in the PAS that reflect the Commission's proposals. Relevant conditions of approval are included.	144-48
	€ works areas should be inspected every morning by a suitably qualified person approved by QSRG to allow identification and relocation of fauna. Work areas should then be fenced for the day.			15.14.3	The determining authorities generally agree with the intent of the Commission and have included relevant conditions of approval. The role of QSRG is discussed in Section 5.	158
	€ grassed areas on the site should be kept in good condition, with no fertilisers or chemical used except where this is essential to repair areas and is consistent with the EMP.			15.14.4	The determining authorities generally agree with the intent of the Commission and have included relevant conditions of approval.	164

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ within 12 months undertake further assessments to refine the mapping of Bandicoot habitat and identify suitable areas for habitat reconstruction and rehabilitation, with reference to the Landscape Management Plan.			15.14.5	The determining authorities generally agree with the intent of the Commission, and the need for an updated habitat assessment, and have included relevant conditions of approval.	165	
€ there should be not net loss of Bandicoot habitat. The location and types of artificial habitat are to be approved by NPWS.	146			The determining authorities agree with the objective of no net loss of habitat for endangered fauna. The conditions require the co-proponents to further refine the habitat mapping for the Long-nosed Bandicoot and to identify areas for habitat reconstruction or rehabilitation. Monitoring of any such habitat is also required. It is noted that the co-proponents propose to create additional habitat behind the First Class Precinct buildings.	166	
<u>Monitoring</u>						
€ provide an annual contribution to the NPWS to implement monitoring programs as part of the Recovery Plan.	145		15.14.6	The determining authorities agree with the need for a comprehensive monitoring program and have included relevant conditions of approval.	167 & Schedule 5	
€ if no monitoring program is established as part of the Recovery Plan, or ceases to operate, the co-proponents shall develop and implement a program that monitors impacts arising from the activity. The plan must be approved by QSRG.				The role of QSRG is discussed in Section 5.		
€ monitor the success of reconstructed or rehabilitated habitat, using spotlight transects and surveys of diggings.						
€ commence monitoring areas of potential foraging habitat within one month, including comparisons of areas unaffected and areas potentially affected by the proposal.						
€ commence monitoring of road deaths within one month (specific monitoring requirements are recommended by the Commission).						
<u>Adaptive management</u>						
€ if the monitoring of potential foraging habitat indicates a statistically significant reduction between control and non-control areas take measures to reduce light and noise in a manner determined by the NPWS (eg. reduce size and frequency of night tours).			15.14.7 15.14.8 15.14.9	It is noted that the advice from the Minister for Planning to the determining authorities (as per s.114 of the EP&A Act) highlights the need to apply mitigation and management measures to minimise threats to the Long-nosed Bandicoot population.  The determining authorities strongly support the concept of adaptive management and generally concur with the intent of the Commission and have included relevant conditions of approval.	168	

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ measures may be reversed if monitoring indicates to the satisfaction of QSRG that there has been no statistically significant reduction between the control and non-control areas for 2 years.				See above. The role of QSRG is discussed in Section 5.		
€ apply various adaptive management measures if levels of traffic increase above projected levels or if adult road mortalities exceed a specified trigger level (eg. curfews on vehicle movements).	147, 150, 173		15.14.9(c) & (d)	The determining authorities generally agree with the intent of the Commission and have included relevant conditions of approval. The option of a curfew on private vehicles is also addressed in the conditions of approval.	169 & Schedule 6	
€ if warranted, a curfew on "private visitor vehicles" should be considered with total reliance on shuttle buses.						
€ installation of road-side fencing not a practical and effective mitigative measure.	150			The determining authorities agree that, on its own, road-side fencing is unlikely to be an effective adaptive management measure. However, there may be some merit in retaining this option for future investigation if the adaptive management measures for Long-nosed Bandicoots are triggered.	146 & Schedule 6	
<u>Little Penguins</u>						
€ within 3 months erect barrier fencing at the northern and southern ends of Quarantine Beach. Design and location of the fence to be approved by QSRG	66, 77, 119, 139		15.4.10  15.4.11	The determining authorities support the Commission's view that fences should be installed at the northern and southern ends of the beach to protect environmentally sensitive areas, and near the sandstone escarpment and Funicular railway to protect Little Penguin habitat. The style of the fence is a design issue that can be finalised prior to seeking approval from DEC for the erection of the fence, and could be incorporated into the Heritage Landscape Management Plan as required. As an additional measure, the determining authorities also consider that signage should be provided during the breeding season to restrict access to the northern part of the beach after dusk.  It is noted that the co-proponents have proposed some fencing for Little Penguin habitat in the PAS, but would prefer that only signage is installed initially at the northern end of the beach.	76, 174-75	
€ no spotlighting for Penguins from the ferry or the site, unless part of an approved special interest tour.	140		15.14.2	The PAS indicates that spotlighting is not part of the proposal.  The determining authorities consider that all special interest tours, including any tours relevant to the Little Penguin, should be approved by the DEC.	176 134	
€ special Penguin tours should be approved by QSRG						
€ no ferry service between dusk and dawn.	119, 138, 174	15(b)	15.11.2(b), 15.14.13	The Commission's report devotes significant discussion to the likely impacts of the ferry service with regard to Little Penguins, including a comparative assessment of potential vehicle impacts on the Long-nosed Bandicoot if ferry services are restricted. In considering this matter, the determining authorities have mirrored the Commission's approach in placing a high priority on the application of the precautionary principle. This has involved a close examination of the respective levels of risk to the Little Penguin and Long-nosed Bandicoot of a full ferry service and restricted ferry service.	138-142 & Schedule 8	



ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		Condition(s) recommended by determining authorities
Page No.	Rec. #	Condition#	Comment/Response				
			<p>The determining authorities have also noted:</p> <ul style="list-style-type: none"><li>€ the support for the provision of water access to the site, as evidenced in the Sydney Harbour National Park PoM, the draft North Head Planning Strategy and in a number of public submissions;</li><li>€ concerns expressed by Manly Council that the restrictions on the ferry service would impact on the viability of the proposal;</li><li>€ the importance of the ferry service to the arrival experience for visitors and the ability to convey important interpretive messages;</li><li>€ the conclusions of the population viability assessment for the Long-nosed Bandicoot (Banks 2000), especially the clear risks associated with increased vehicle access; and</li><li>€ the relative stability of the Little Penguin population since comprehensive monitoring commenced, even given the heavy use of the harbour by boat traffic and noting that the majority of the population remains outside of the National Park.</li></ul> <p>Given this context, the determining authorities do not support the application of a blanket dusk-to-dawn curfew on the operation of the ferry service. It is considered that the risk to Little Penguins associated with one ferry movement per hour is minimal and is unlikely to significantly impact on the population, even if critical habitat is declared in this area. On the other hand, the increase in vehicle traffic that may occur as a result of a ferry curfew would pose a significant risk to the Long-nosed Bandicoot, especially at the critical sunset to early evening period.</p> <p>In addition, even after applying the precautionary principle, the determining authorities are not convinced that a more limited curfew should be applied in the times immediately around sunset (eg. an hour either side of sunset). This option was noted by the Minister for Planning in his advice to the determining authorities regarding the outcomes of the COI (as per s.114 of the EP&amp;A Act). Instead, the determining authorities are satisfied that the application of a curfew on ferry movements should remain as a potential adaptive management measure that could be imposed by the DEC once certain trigger thresholds are passed. The conditions of approval address this matter further.</p> <p>The determining authorities note the proposals in the PAS to undertake further research and to experiment with ferry arrangements. This work should further assist in reducing the risks to the population and may provide additional information to aid in determining whether adaptive management measures need to be applied.</p>				
<p><u>Monitoring</u></p> <ul style="list-style-type: none"><li>€ provide an annual contribution to the NPWS to implement monitoring programs as part of the Recovery Plan.</li><li>€ if the monitoring program ceases to operate, the co-proponents shall develop and implement a program that meets the requirements of the conditions of approval. The plan must be approved by NPWS.</li></ul>		<p>15.14.14</p> <p>15.14.15</p>	<p>The determining authorities generally agree with the intent of the Commission and have included relevant conditions of approval.</p>			177-78	

ISSUES (as per COI report)		SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
<u>Adaptive management</u> € if monitoring indicates the area of occupancy decreases by a specified limit (determined by the NPWS) over two successive breeding seasons, implement a range of measures (detailed in COI report).	139		15.14.16	The determining authorities support the concept of adaptive management and have included conditions relevant to potential impacts of the activity on the Little Penguin.	179 & Schedule 8
<u>Marine environment</u> € within 6 months of approval commence negotiations with Waterways and NSW Fisheries in relation to measures to restrict private boat mooring to avoid seagrass impacts.	139, 162		15.15.1	The determining authorities share the Commission's concern about existing impacts from vessel anchorage and propeller damage on seagrass beds off Quarantine and Store Beaches, and the need to ensure that this situation is not exacerbated as a result of the current activity. It is considered appropriate that the co-proponents contribute to discussions with Waterways Authority and NSW Fisheries to explore options for managing these impacts.	183
€ prior to commencement of ferry service consult with Waterways regarding the arrival and departure route for the ferry. € always dock the ferry at the end of the wharf until any future alterations have been approved.			15.11.5 15.15.2 15.15.3	The determining authorities agree with the need to specify access arrangements for the wharf and have specified appropriate conditions of approval.	9(d), 118(c), 140-142
€ seagrass survey and targeted survey for weedy sea dragon should occur prior to commencement of site operation, with procedures approved by NSW Fisheries and included in EMP. € if monitoring indicates damage to seagrasses, compensatory planting is required.	160-161, 163-164, 165		15.15.4	Although sufficient information regarding seagrasses was provided in the EIS to enable assessment of the likely impacts of the proposal, the determining authorities concur with the proposal to undertake a more detailed seagrass survey. This should occur prior to the commencement of works on the wharf and operation of the ferry service. The survey will provide essential baseline information for on-going monitoring of the activity. Methods for the initial survey and on-going monitoring should be prepared in consultation with the Waterways Authority and endorsed by NSW Fisheries.  Similarly, it is agreed that if damage to seagrasses is occurring as a result of the activity then the co-proponents should take steps to rectify this.  However, the determining authorities do not consider that there would be merit in undertaking a targeted survey for the weedy sea dragon. In forming this view the determining authorities note that no major underwater works are proposed for the wharf and the works that are proposed are unlikely to extend over a lengthy timeframe or involve major disturbance to habitat. The determining authorities also note that the submission from NSW Fisheries raises no concerns in this regard.  The above measures related to seagrasses will further assist in preventing damage to this component of potential weedy sea-dragon habitat.	184-87

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ Mapping of seafloor topography should commence prior to introduction of ferry.	158			The determining authorities do not consider such mapping to be necessary given the scale of the activity and the regular seagrass monitoring that will occur.	No condition warranted.	
€ NPWS should prepare and administer an EMP for QS, Store and Collins Beach.	178	21(b)		While supporting the general intent of this condition, the determining authorities consider that the Sydney Harbour National Park Plan of Management provides an appropriate level of planning for addressing the management requirements of these areas. Strategies for responding to issues such as stormwater runoff, access and conservation of environmentally sensitive areas can be addressed within this framework, and are also specifically proposed for the Quarantine Station site as part of the recommended conditions of approval. A further level of planning would also be provided in the event of a critical habitat declaration for the endangered population of Little Penguins at Manly, currently under consideration.	No condition warranted.	
<u>Predator and pest control</u>						
€ prepare a predator and pest control plan as part of the EMP.	152		15.16.1	The determining authorities agree and have included relevant conditions of approval.	188-90	
€ predator and pest control activities must be undertaken in accordance with the approved plan.			15.16.2			
€ review the plan every 5 years or as necessary, and prepared a revised plan for approval by QSRG.			15.16.3			
			15.16.4			
<u>Other - general</u>						
€ proposed mitigative and management measures should be approved by NPWS and included in EMP.	140			The determining authorities consider that a range of agencies with specialist expertise should have a role in reviewing and endorsing the mitigative and management measures for the activity. Obviously, that will include a clear role for the DEC with regard to flora and fauna matters.  The determining authorities have prepared a range of conditions relevant to this issue.	Key conditions include:  168-69, 172, 179, 181, 186, 216, 226, 232-33	
€ targeted survey for Red-crowned Toadlet prior to final design of CP5	153			The determining authorities do not agree with the recommendation of the Commission. Even if the species were present, it is considered unlikely that the construction of CP5 would have a significant adverse effect or place a local population at risk of extinction given the limited size of the car-park, the potential habitat available elsewhere on the site and the measures proposed by the co-proponents to manage stormwater.	No condition warranted	

## **4.4 Transport and visitor access**

### **4.4.1 Context**

North Head is isolated, being surrounded on most sides by water and accessible from land only via one main road route. It is this relative isolation that was initially one of the reasons that made it an attractive location for quarantine purposes. However, it also makes the management of access to the Quarantine Station site and other areas of North Head a challenging task.

Transport and access issues for the Quarantine Station can be considered at a number of levels. At the broadest level, the site sits within a larger harbour context. At this point there is a general consensus regarding the objective of promoting public access to, and the use of, foreshore lands. This is clearly evident in the Sydney Harbour Regional Action Plan (DUAP 2000) and in the guiding principles of SEPP No.56. Similarly, the site forms one part of a larger national park that spans a number of key harbour locations. The Plan of Management for Sydney Harbour National Park (NPWS 1998) states that the park will be promoted as the “Gateway to Sydney” and there is a clear emphasis on encouraging visitor access to the park and interpretation of its values.

At an intermediate level, the site is only one of a number of areas at North Head that collectively require a careful approach to the issue of access management. At this level, the Manly LEP 1988 (Manly Council 2000) provides only limited guidance on how to address access issues at North Head. The LEP includes a range of policies and strategies of relevance to the proposal. These include: encouragement of tourism; promotion of industry and commerce that will contribute to economic growth in Manly; and the promotion and celebration of Manly’s heritage. The LEP also includes policies that aim to manage the existing road network to provide an efficient system for traffic movement and safety and residential amenity. This is to be supported by facilitating access to public transport.

The limits of the transport system as it relates to North Head are considered in more detail in the draft North Head Planning Strategy (Clouston 1996). That report notes that the existing road system was designed to cater to earlier land uses and is not specifically designed to promote regional visitor amenity or to deal with impacts from the various institutional uses on the headland (eg. the hospital, Police College, etc). The draft Planning Strategy also acknowledges the potential impacts that car access to North Head has on traffic movements in Manly and local residential amenity.

Given this background, the draft Strategy proposes a range of strategies to address circulation and access. These include strategies that favour public transport over private vehicles and promote water-based access. The draft Strategy also suggests measures specific to the Quarantine Station site consistent with these strategies, such as the removal of vehicles from heritage precincts and establishment of a ferry service to the site.

At the site-specific level, policies relating to transport and access are considered throughout the QSCMP and DACMP. There are two key issues at this level: access to the site; and access within and across the site. In addition, these issues are clearly linked to the overall consideration of appropriate levels of visitation and the limited carrying capacity of the site

given its fragile and sensitive heritage values. QSCMP Policy GCP 15 establishes this context when it states that the NPWS will manage visitation and ensure sustainable use of the site is not exceeded. This is supported by subsidiary policies AIP3.1 and AIP 3.2 in the DACMP.

The DACMP also provides specific guidance on dealing with potential impacts associated with physical access arrangements to the site and within the site (eg. parking). Relevant policies include AIP 1, 3 & 4, GCP 13.3.25 to 13.3.32, and CPP 4.5. The DACMP clearly emphasises the priority of low impact public access and that access must be managed and may change over time. The presence of cars is noted as being historically valid and is able to continue under controlled circumstances, although the ultimate management objective is to move towards adoption of a car-free policy.

As noted in Section 2 of this report, the Sydney Harbour National Park PoM also addresses issues relevant to transport and access. In particular, the PoM notes that public transport, boat and walking access to the park will be promoted as alternatives to private cars. Further, the PoM requires that no additional roads or car parks be constructed, with the possible exception of car parking in the Quarantine Station.

#### **4.4.2 Proposal and likely impacts**

Traffic and access impacts associated with the proposal are considered primarily in Chapter 20 of the EIS and in the draft Visitor Access Strategy (EIS Appendix J). Further information was provided by the co-proponents during the course of the COI, particularly in response to questions raised by the Commission.

The determining authorities' review of potential transport impacts has been informed by independent specialist advice (PPK, 2000 & 2001).

Issues associated with potential transport impacts overlap with many other key aspects of the proposal. These include impacts on historic heritage (eg. visitor numbers), fauna (eg. vehicle related bandicoot mortalities) and neighbouring residential amenity (eg. traffic noise).

In broad terms, the key transport and access components of the proposal include:

##### **(a) Physical changes and impacts**

- € some heavy vehicle movements during construction;
- € additional traffic generated during key periods, such as weekday afternoons and between 11.00 pm and midnight, with consequent impacts on the capacity of Darley Road, increases in noise levels and implications for current and future land uses at North Head;
- € provision of new on-site car-parking for day visitors, overnight guests and staff, which will require vegetation removal, some filling, installation of drainage systems and fencing or screening;
- € impacts on existing traffic flows and parking demand in Manly town centre;

- € introduction of a ferry service from Manly to the site, with associated minor works on the Quarantine Station wharf (eg. low-level lighting, maintenance repairs, etc) and potential impacts on seagrasses and Little Penguins;
- € potential increases in Long-nosed Bandicoot road-kills and disturbances to foraging behaviour (eg. due to increased noise and light associated with additional vehicles);
- € construction of new pathways (eg. gravel paths and the Funicular stairway);
- € modification of the fence along the Quarantine Beach, including the provision of direct access to the beach from the Wharf Precinct;
- € provision of wheelchair access to some buildings; and
- € minor road repairs (edging, pot holes, etc)

**(b) Visitor management and impacts**

- € substantial increases in visitor numbers accessing the site, particularly in the Wharf Precinct but also across other parts of the site (eg. tour groups, accommodation areas, etc), with potential impacts on historic heritage, landscape elements (eg. damage from uncontrolled access), fauna (eg. disturbance) and the overall sense of isolation and separation of the place. Up to 100,000 visitors are eventually expected to visit the site annually, compared to the existing 30,000 per year;
- € provision of two free access community days per year; and
- € management of visitors via a precinct access system, with free access available to the Wharf Precinct and access to other areas provided as part of tours or other on-site functions<sup>23</sup>. Precincts would be delineated with symbolic fencing and signage.

The original proposal detailed in the EIS also noted that approval may be sought at a later date for upgrading of the wharf so that it is capable of accommodating Sydney Ferries vessels and commercial cruise operators. In addition, some guided special interest tours were proposed to sensitive areas such as Cannae Point and Old Mans Hat.

**4.4.3 Proposed mitigation measures**

There are a number of mitigative measures that relate to the management of transport and access arrangements to the site. Key proposed measures include:

- € introduction of a ferry service to the site, with a low draft to reduce potential seagrass impacts, providing site access for up to 43% of visits (EIS Appendix J, p.34);
- € provision of a shuttle service between Manly and the site subject to demand and as a back-up when the ferry is unable to operate (eg. rough conditions);

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<sup>23</sup> although accommodation guests would be able to move between the Wharf and areas containing accommodation.

- € provision of shuttle bus to transport day visitors from the entrance car park (CP1) to the Wharf Precinct;
- € installation of signage to direct traffic from Manly;
- € monitoring of visitation to the site, including arrivals by water and land, visitor numbers across operations and at different time periods, visitor impacts, etc; and
- € management of vehicle access, including no coach access, installation of traffic barriers and speed humps, allocation of parking based on room type, provision of a shuttle or valet service for guests, etc.

In addition to these transport specific measures, other actions are proposed elsewhere in the PAS to mitigate transport impacts (including water, vehicle and pedestrian impacts) on built heritage, fauna and Aboriginal heritage.

It is noted that some of the above mitigative measures, and other aspects of the proposal detailed in the PAS, were introduced by the co-proponents following consideration of the submissions and COI outcomes. This includes the deletion of two large proposed car parks and introduction of the free community days.

#### 4.4.4 Submissions

Submissions on visitor access and transport issues were categorised into six broad groups:

Issue raised	Number (% of submissions)
€ Public access (note this overlaps with submissions concerning the socio-economic impacts of entry fees – refer Section 4.12)	231 (21.1%)
€ Visitor numbers	46 (4.2%)
€ Car parking	36 (3.3%)
€ Traffic	56 (5.1 %)
€ Water access	40 (3.7%)
€ Other	6 (0.6%)

Points raised in the submissions were:

- € the site should be retained in public control for all to access - private sector involvement will threaten this;
- € the proposal is inconsistent with the State Government policy of promoting public access to the harbour foreshores;
- € the cost of entry fees will prohibit equitable access for all – there should be free educational opportunities for children;

- € visitor numbers are likely to exceed the EIS predictions and there are inconsistencies in visitor data;
- € visitor numbers should be increased in stages with monitoring to ensure sustainability, and maximum numbers should correspond to the historical peak of 315 occupants on any one day;
- € there is an increased risk of impacts on and off the site with increased visitor numbers, vehicles and car parking. This includes impacts on road traffic, water transport, built heritage, natural heritage, Little Penguins, Bandicoots, visual quality, air pollution, local residents, Manly Hospital, Aboriginal heritage, and ambience;
- € increased visitation and the extent of proposed car parking and vehicle usage within the site is inconsistent with the CMP and historic use patterns;
- € inaccurate information in the EIS regarding the actual size of car parks;
- € there is a need for better and increased use of public transport and pedestrian and cycle access to the site. Options for additional night bus service and combined bus/entry fee to encourage public transport use should be considered;
- € the existing road system at Manly centre and Eastern Hill is congested and overloaded and cannot support further traffic pressures, particularly along Darley Road;
- € the road transport figures in the EIS are outdated, and situation has changed and worsened since the 1996 study;
- € there is a lack of consideration of cumulative traffic increases for North Head and Darley Road;
- € there is an over-reliance on the voluntary Minimal Impact Code to deal with driver behaviour and visitor activities and behaviour on site;
- € impacts on the aquatic reserve, sea grasses and Little Penguins through use of the ferry service and associated wharf upgrade; and
- € formalising access to Manly Wharf should be a pre-requisite to any approval.

Some submissions also indicated support for particular aspects of the proposal:

- € access to the site by public ferry and water is a positive move as it will improve public access and recreate history. This will off-set land based impacts; and
- € positive impacts of car parks include improvements to the current parking situation that is impacting on the site, and improved access facilities for visitors and clients.

#### **4.4.5 Commission of Inquiry findings and recommendations**

The Commission made nine key findings and recommendations with respect to transport, access and visitor numbers.

1. the projected growth in visitor numbers to 100,000 in Year 3 is acceptable. However, a staged approach to acceptable visitor numbers is required,



and will be dependent on the extent of impact determined by environmental and conservation monitoring which must be a continuing process during the life of the approval. The determination of acceptable visitation levels must be the responsibility of the NPWS rather than Mawland (12);

2. the optimum number of visitors at any one time should be set at 315 and the maximum at 450 at any one time. These figures should not be considered as “fixed” but serve as initial thresholds for monitoring to be carried out and assessment of impacts therefrom to determine sustainable levels of visitation (13);
3. the capacity of affected intersections in Manly Town Centre and Darley Road are capable of accommodating additional traffic generated by the proposal. Having regard to policies in the QSCMP and DACMP and adverse impact on foraging Bandicoots, the Commission recommends that:
  - € a regular shuttle bus service between the Station and Manly Town Centre be provided particularly to cater for night tour visitors. Such service should commence when the proposal is operational. Conditions of approval quantify detail;
  - € a maximum of 120 parking spaces including 2 each for buses and coaches are to be provided in CP1 subject to detailed design. All visitor cars should be parked in CP1. No independent vehicular access beyond CP1 except vehicles transporting disabled visitors, staff, service and contractor vehicles, emergency vehicles and internal shuttle service should be approved;
  - € a maximum of 40 parking spaces are to be provided in CP5 for staff parking only. It should be redesigned to avoid encroachment onto the backyards of Buildings S12 and S4 and removal of the Eastern Suburbs Banksia Scrub directly opposite Building S12; and
  - € the existing car park opposite to Building S1 should only be used by service and internal vehicles such as the people mover and shuttle bus [16(a)-(d)];
4. the operation of the proposed ferry service is fundamental to efforts to reduce the impact of increased traffic flow. As such, it is recommended that the proposed activity should not commence on the site until the co-proponents can secure the use of a wharf in Manly for the proposed ferry service [17(a)];
5. the Commission is unable to arrive at a conclusion as to the structural adequacy of the Quarantine wharf to accommodate the proposed ferry services. An independent review of the structural adequacy of the wharf including underwater structural inspection and pest inspection is required. This review should be carried out by an appropriately qualified person/company approved by the Director-General of Planning NSW and paid for by the co-proponents [17(b)];

6. the existing security fence separating the beach and the Station should be retained with no openings to allow direct access from the outdoor eating area to the beach [10(g)];
7. public access to Store Beach from the Station should be prevented to protect penguin habitat and Aboriginal archaeological sites and maintain the environmental quality of Collins Flat and Store Beaches [21(a)];
8. contractual arrangements regarding the lease and use of the Quarantine wharf must ensure its future availability for general water access to North Head [8(a)]; and
9. an integrated transport management plan be prepared by Manly Council upon confirmation of the type and intensity of future use of the School of Artillery. The co-proponents should contribute to the development of such a plan [8(b)].

The determining authorities' consideration of the Commission's findings is detailed in Table 8 and reflected in the approval conditions for the activity.

#### **4.4.6 Discussion and conclusion**

As noted above, access issues associated with the proposal can be considered at three distinct, but inter-related, levels: whole-of-harbour and whole-of-park; North Head; and the Quarantine Station site itself. As well as these overlapping levels, access issues also are of prime interest to other aspects of the proposal, including potential impacts on fauna and historic heritage.

Consideration of the proposal and likely impacts is made difficult by current uncertainties regarding other key sites at North Head, such as the former School of Artillery site and Manly Hospital. In particular, given the on-going development of plans for the School of Artillery site (see Appendix 7) the long-term transport implications for North Head are unclear. However, the draft North Head Planning Strategy does provide some guidance on measures that should be adopted to manage circulation and access in the area, with emphasis given to public transport including water-based access. It is expected that this will be supplemented by continuing discussions regarding the more recent proposals for a "sanctuary" at North Head (Sydney Harbour Federation Trust 2003a).

At the site-specific level, the overall priority is much clearer. In summary, while public access is to be encouraged as a means to promote broader understanding and appreciation of the place, that access is to be managed and limited to ensure that the significance of the Quarantine Station is not eroded. The DACMP in particular provides a clear mandate to limit the extent of site visitation and the methods of travel to and within the site. It also gives direction on the management of access within the site, including a requirement for any on-site parking to be based on the potential of the site after applying conservation constraints and not by the capacity of the accommodation facilities.

Based on a consideration of the proposed transport and access arrangements outlined in the EIS and PAS, and the need to place these in the broader context of planning objectives for North Head and the harbour, it is concluded that the likely transport impacts associated with the proposal can be addressed through appropriate conditions on any approval.

While the proposal already identifies a number of mitigative measures, these will need to be expanded to ensure that the conservation significance of the site is protected and broader planning options for North Head as a whole are maintained. The recommended conditions of approval relating to transport and access are detailed in Schedule 1 of this report. As noted above, there are overlaps with other recommended conditions of approval, such as the adaptive management provisions for Long-nosed Bandicoots.

**Table 8 - Commission of Inquiry outcomes – transport and visitor access**

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>Site capacity and monitoring</u>						
€ for the first 3 years after approval the number of people on site at any one time shall be 450 (including staff), excluding approved special events and open days, with an optimum of 315 people at any one time.	116, 119, 123, 146, 151, 152, 194	12 13	15.9.1 15.9.2	Issues concerning visitor numbers and capacities are the subject of considerable discussion in the Commission's report and the public submissions on the proposal. These discussions, together with the provisions of the DACMP (AIP3.1, 3.2 and 3.4), have informed the determining authorities assessment of this issue. In particular, the determining authorities note the DACMP requirements to establish thresholds for visitation and to limit day visitor numbers according to the capacity of the Wharf Precinct.  Taking these matters into account, the determining authorities agree that visitor numbers should be increased gradually to ensure that the site's values are protected. In this regard, the determining authorities also agree with the conclusions of the Commission regarding optimum and maximum capacities on the site at any one time. These should form initial thresholds for monitoring and assessment of impacts, and provide the basis for determining sustainable levels of visitation.  It is noted that the co-proponents agree with the capacities proposed by the Commission and conditionally agree with the approach to staging growth.	120-21	
€ projected growth must depend on monitoring results of impacts. The staged approach to acceptable visitor numbers is dependent on the extent of impact as determined by monitoring and must be a continuing process during life of the approval. EMP must include measures that delay increases if mitigative measures are not effective in reducing impacts						
€ a visitor monitoring program shall be prepared in consultation with NPWS and in accordance with the DACMP and COI report. The monitoring program shall be included in the Visitor Access Strategy and the EMP.			15.9.3	The determining authorities agree with the need to establish a comprehensive visitor monitoring program and consider that this should be an integral part of the Visitor Access Strategy.	156-57	
€ need to monitor current activities prior to introduction of new tours – recommends preparation and implementation of EMP	118			The determining authorities agree that sufficient baseline information should be provided to enable the assessment of tour impacts over time, particularly on Long-nosed Bandicoots. It is noted that the staging proposed by the co-proponents envisages that the new tours would not commence until the second stage after approval, and then only on an interim basis.  Given this context, and proposed limits on site capacities, the determining authorities consider that there is a ready opportunity to monitor the impacts of tours and other activities on the Long-nosed Bandicoot prior to substantial increases in site visitation occurring or the introduction of new tours. The recommended conditions of approval address this matter and also make provision for the introduction of adaptive management measures if monitoring indicates adverse impacts on Long-nosed Bandicoot activity.	133, 167-69, 202	
€ introduction of night vehicle movements should be staged – a maximum of 4 movements by "people mover" per night in Year 2. Movements may be increased following satisfactory monitoring with QSARG approval.	119, 148			The determining authorities do not consider that the proposed restriction on movements by the "people mover" to be an appropriate or meaningful mechanism to limit potential impacts on Long-nosed Bandicoots. Instead, the above requirements for monitoring of visitor numbers, monitoring of Long-nosed Bandicoot activity and adaptive management, together with the restrictions on the number of people on night tours at any one time (see below), are considered to provide a more robust tool for assessing and managing risks to the Long-nosed Bandicoot population.	see above and below	

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>Integrated traffic plan</u>						
€ Integrated traffic plan for Nth Head be prepared by Council upon confirmation of uses for School of Artillery, with contributions from the co-proponents.	150, 170	8(b)		The determining authorities agree that the future and on-going management of the activity at the site should occur in the context of any integrated plans for the whole of North Head, when and if such plans are prepared. It is also considered that the co-proponents should actively liaise with other land managers at North Head to specifically examine options for off-site parking.	28-29	
<u>Special events and functions</u>						
€ the number of special events is limited to 4 per year.			15.9.4	The determining authorities do not consider that there needs to be a blanket limit on the number of special events, as this has no link to the likely impacts associated with such events. Rather the determining authorities are of the view that there should be a limit on the number of special events requiring overflow parking. In this regard, it is recommended that up to 6 special events (including the two open days) requiring overflow parking may be held per year.	127 & 152	
€ special event proposals are to be approved by QSRG following consultation with Manly Council.				The process for approving special events, including consultation with the Council, is established in the conditions.		
€ no outdoor functions and special events at night until a "full" 2 years monitoring assessment has been completed on night-time activities.	121		15.9.5	The determining authorities generally agree with the intent of the recommendations in the Commission's report and note that impacts associated with night activities will be addressed through the monitoring program for the site.	133, 135, 156-57	
€ outdoor special events and functions after dusk are to be located away from areas of potential Bandicoot foraging habitat. Any night functions or events in the Wharf Precinct must be held indoors.				It is noted that the PAS indicates that no special events will take place at night, but expresses some concerns regarding the limits on outdoor activities in the Wharf Precinct and elsewhere. The determining authorities have noted these concerns and consider that the desired outcome is to minimise potential impacts on Long-nosed Bandicoots and Little Penguins. It is not considered that this requires limits on the outdoor eating area at A6 or guided tours at the Wharf, but will require other organised night events in this area to be held indoors. Similarly, other night activities elsewhere on the site should minimise impacts on Long-nosed Bandicoots.	128	
<u>Tours</u>						
€ regular public tours must form a component of the operation for the term of this approval.			7.2	The determining authorities agree and have recommended an appropriate condition.	26	
<u>Night Tours</u>						
€ the total number of night tour patrons is limited to 100 per night while visitor monitoring is undertaken to identify impacts. Data shall be evaluated by QSRG to determine whether this number should be modified.			15.9.6 15.9.7	The likely levels of night tour patronage are discussed in some detail in the Commission's report, particularly in relation to potential impacts on the Long-nosed Bandicoot. The Commission proposes that increases in night visitation should proceed in a staged manner subject to monitoring outcomes.  As discussed previously, the determining authorities generally support the concept of staging the expansion of activities. However, the determining authorities consider that rather than a cap on total tour numbers per night, a limit should apply on the night tour visitors on the site at any one time. This is more consistent with the overall approach to management of visitors	129-33	

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ night tours should avoid traversing or stopping in the vicinity of potential Bandicoot foraging habitat.				and monitoring of impacts on the significance of the site.  The determining authorities observe that under current operating arrangements up to 150 people and 5 groups could participate in Ghost tours every night (the only night tour currently offered). In addition, up to 60 people and 2 groups could participate in an early evening Ghost tour for children. In total, on current limits up to 210 people and 7 groups could access the site on any given night. However, it is understood that such limits are rarely, if ever, met at the present time. In addition, the determining authorities note that once the activity commences a range of new and/or expanded site activities will also be provided that are not occurring now. These include the expanded accommodation facility, increased vehicle access and the restaurant in A6.  On this basis, the determining authorities agree that a limit on night tours should be imposed while monitoring of impacts proceeds. The size should be less than current limits to reflect the expansion of other uses that are to occur under the proposal but still be sufficient to allow the public access and interpretation outcomes for the activity to be delivered. The determining authorities therefore propose a limit of 100 night tour visitors and 3 night tour groups on the site at any one time for the first three years. This limit will allow the co-proponents some flexibility in determining which tours will be offered, their frequency and size (eg. one Ghost tour of 20 people and two 1918 tours of 40 people each), and protect the site's values while monitoring occurs.  The determining authorities generally agree with the aim of preventing night tours from crossing or stopping near foraging habitat.		
<u>Special interest tours</u>  € no special interest tours shall be conducted without approval of QSRG. Certain specified information is to be provided with any application.			15.9.8	The determining authorities agree, but consider that the DEC is the appropriate approval body.  The role of QSRG is discussed in Section 5 of this report.	134-35	
<u>Access to Store Beach</u>  € independent pedestrian access to Store Beach and Collins Beach shall be prevented. Limited supervised access may be possible as part of approved special interest tours.	140	21(a)	15.9.9	The PAS indicates that access to Store Beach is no longer part of the proposal. Nevertheless, the determining authorities have noted the potential risks of unsupervised access given the area's Aboriginal heritage values and the efforts being undertaken via the Little Penguin Recovery Plan to promote the establishment of additional burrows in this area.  On this basis, the determining authorities consider that it remains valid to include a condition to highlight that independent access to Store Beach, or associated track works, will require a separate assessment and approval.	43	
<u>Access to Quarantine Beach</u>  € All access to beach should be from wharf area. Existing security fence should be retained with no openings to the	66, 119,	10(g)	15.8.5	In considering this issue, the determining authorities have carefully reviewed the policies of the QSCMP and DACMP. The DACMP (L15) indicates that historically, the beach area was not available for general access. In defining future use of this landscape, the DACMP states that the beach and its margins should not be generally accessible, that access to the beach	Schedule 3	

ISSUES (as per COI report)		SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
beach.	140			<p>should not be reinforced or formalised, and that adaptive reuse of the Wharf Precinct should not establish new connections to this landscape unit. The need for secure access along the beachfront is noted. Further, the DACMP recommends that the fence be retained as tangible evidence of the separation between beach activities and the functions of the buildings.</p> <p>However, the determining authorities are also cognisant of the practical implications of enforcing a rigid barrier between the beach and Wharf Precinct, particularly with respect to public safety and recreation opportunities. It is noted, for example, that the Wharf Precinct will provide the focus of most visitor activity at the site and that in the event of an emergency, ready access to the beach may be required. In addition, it is likely that there will be increased use of the beach as a result of the activity. This will necessitate some form of controlled access way, both to ensure that safe access is available and to reduce the risk of uncontrolled access damaging the site (eg. the dunes and grassed areas).</p> <p>With respect to the current fence, it is also noted that it appears to be a recent alignment (as per DACMP), and was erected post-1984. The fabric of the current fence is therefore of little significance.</p> <p>On this basis, and taking into account the need to prevent public access to certain areas during the penguin breeding season, the determining authorities are agreeable to either the removal or modification of the existing fence, subject to the approval of a detailed design. If the fence is to be removed it must be replaced with a suitable alternative that reflects the historic separation of uses but which also achieves other objectives related to safety and security. Any openings in the beach fence should generally be provided in the area behind A7 and A6, although an opening could also be provided closer to the wharf. There should be no opening at the northern end of the beach in the immediate vicinity of the outdoor eating area. Openings should be limited in width, but may be capable of being expanded in the event of an emergency (eg. concertina).</p> <p>The Commission's findings with regard to fencing for Little Penguin habitat are discussed in Table 7.</p>	
<u>Open days</u>  € At lease 2 public open days shall be held every year. They must be held on a weekend or public holiday and include opportunities to participate in tours and interpretive activities. In organising open days the co-proponents shall consult with QSRG. The site capacity limits shall not apply to open days.			15.9.10	<p>The determining authorities strongly support the concept of free public open days and note this is also proposed in the PAS. The determining authorities agree with the co-proponents that a booking system should be used for open days and numbers must be within the overall site limits.</p> <p>It is considered essential that the open days provide free tours and activities that promote an understanding of the site's values and are not confined to information regarding the management of the site and works being undertaken.</p> <p>The role of QSRG is discussed in Section 5.</p>	126
<u>Access to Museum</u>  € A Quarantine Station Museum shall be established in the Wharf Precinct for all visitors to the site. Visit to the museum shall be charged at a nominal rate.	64, 92	10(c)	15.9.11	<p>The determining authorities agree with the Commission's view that all visitors should have access to interpretive information that will facilitate an understanding of the site. However, the determining authorities consider that this outcome could be achieved through the provision of interpretive material at the proposed visitor centre within Buildings A14-17, which will be freely accessible to all visitors. The ability to view moveable heritage items and archival material displayed in a museum-type situation is not regarded as essential to gain an understanding of the site. It is considered that this issue can be addressed as a specific component of the Interpretation Plan. See also Table 5.</p>	100

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>School groups</u> € an environmental and cultural education program shall be prepared in consultation with the Department of Education, NPWS and MLALC and approved by QSRG. The program shall include provision that allows day excursions by school groups			15.9.12	The PAS makes provision for school groups to visit the site without the need to stay overnight and this is supported by the determining authorities.  The role of QSRG is discussed in Section 5.	136	
<u>Pricing</u> € pricing for all activities on the site shall make provision for a reasonable proportion (defined in consultation with the QSRG) of visitors to be able to access the site under concession arrangements. Concession visitors shall include, but not be limited to those with disabilities, those with pensioner or senior cards, and school age and tertiary students.			15.9.13	The determining authorities strongly agree that pricing arrangements for the site need to promote equitable access, particularly for visitors in identified "concession" groups. This is essential to ensure that a broad cross-section of the community has the ability to access the site, even if that opportunity is not taken. It is noted that the free access to the Wharf Precinct, coupled with the two annual free community days, are positive aspects of the proposal that are supported by the authorities.  The determining authorities therefore consider it essential that access to the facilities at the site be made available at a range of price-scales. Relevant conditions of approval are included regarding the pricing of activities at the site.  In defining appropriate conditions the determining authorities have been mindful of the public interest requirements of the NPW Act, the need to maintain a viable operation that provides access and generated revenues for conservation, and the principle of competitive neutrality.  See also Section 4.12.6.	122-23	
<u>Access Strategy</u> € within 6 months of approval, the co-proponents shall finalise the Visitor Access Strategy/ having regard to the COI report and submitted for the approval as part of the EMP. The Strategy is to address certain specified matters.  € a traffic management plan should be prepared as part of EMP, in consultation with Council and State Transit Authority – to include details of shuttle service. TMP to be included in final visitor access strategy	170, 175		15.10.1  15.11.6	The determining authorities agree with the Commission and have recommended conditions requiring the completion of a final Access Strategy, to be prepared in consultation with Manly Council and the STA.  It is noted that the co-proponents also support finalisation of the Visitor Access Strategy.	118	



ISSUES (as per COI report)		SOURCE				DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
	<u>Shuttle bus</u>						
€	a prominent role shall be given to the shuttle bus service	120, 149, 171, 175	16(a)	15.11.1	The determining authorities agree that a high priority should be given to measures that reduce the extent of private vehicle trips to the site. This is consistent with the intent of the DACMP and the draft North Head Planning Strategy.	155	
€	the co-proponents shall provide a shuttle bus service to transport visitors between the Manly Town Centre and the site. The shuttle bus service shall have a minimum capacity of 21 persons per trip and be operational from the commencement date. Details of the bus service shall be addressed in the Visitor Access Strategy and Traffic Management Plan as part of EMP.				Provision of a shuttle bus service, particularly during peak periods of visitor activity and during the evening (when Long-nosed Bandicoots are most active) is therefore supported. Conditions regarding this issue and the modal split targets for the site have been recommended by the determining authorities.		
	<u>Ferry service</u>						
€	the activity should not commence until the co-proponents can secure use of wharf in Manly for the ferry service	174	17(a)	3.1(c)	The determining authorities strongly support the introduction of a ferry service to the site and generally agree with the Commission's views. The provision of a ferry service between Manly and the Quarantine Station wharf is a fundamental component of the proposal, and a key strategy for minimising impacts on the endangered population of Long-nosed Bandicoots at North Head. The co-proponents must be able to demonstrate that the establishment of this service is achievable prior to commencement of the activity.	Key conditions include: 9(d) 42, 138-42, Schedule 4	
€	the ferry shall commence within 4 months.			15.11.2			
€	no ferry movements between dusk and dawn.			15.11.3	The determining authorities have recommended a number of conditions with respect to the ferry operation and achievement of modal targets.		
€	be provided on a minimum hourly basis on weekends and public holidays by between dusk and dawn at the end of the first year.			15.11.14	The proposed curfew on ferry movements between dusk and dawn is discussed in Table 7.		
€	be provided on a minimum hourly basis on all days of the week by the end of the third year.						
€	the co-proponents shall undertake all practicable measures to ensure that: within 3 years, the proportion of visitors accessing the site by the ferry shall be not less than 40%; and within 5 years the proportion of visitors accessing the site by ferry shall be between 40% - 50% and must stay at this level, or greater, for the life of the project.						

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
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€ when the operation of the ferry is not possible due to factors such as maintenance requirements, inclement weather or the like, the co-proponents shall provide a shuttle bus service from Manly to the site.						
<u>Road transport</u>						
€ as part of the EMP, the co-proponents shall prepare a traffic management plan for both the construction and operation phases of the activity. The traffic management plan shall address various specified matters.			15.11.6	The determining authorities agree with the statement in the PAS that traffic management issues would best be addressed as part of the overall Visitor Access Strategy, rather than a separate document.	No specific condition warranted	
<u>Car parking</u>						
€ all visitor cars shall park in CP1 or off-site. A maximum of 120 spaces including 2 each for buses and coaches may be provided in CP1 subject to detailed design. CP1 shall be introduced in accordance with the 18 month program proposed in the co-proponents' submission in reply to the COI.	98, 129, 145, 171, 173	16(b) 16(c)	15.11.7 15.12.2	The determining authorities have carefully considered issues regarding on-site parking. This includes the advice provided by the Minister for Planning to the determining authorities (as per s.114 of the EP&A Act).  It is noted that the management of vehicles has implications for a range of the site's values, including landscape quality, visual amenity and threatened species (especially Long-nosed Bandicoots). It also intersects with objectives regarding increased public access to, and interpretation of the place.  The DACMP acknowledges that the presence of cars on the site in limited numbers is historically valid (GCP 13.3.32) but that clear measures must be taken to prevent adverse impacts associated with such access (AIP 4.5 to AIP 4.8). Provision for on-site car-parking is also made in the Sydney Harbour National Park PoM.  The determining authorities note that the proposed car-parking arrangements for the site have been substantially modified by the co-proponents since the original EIS was exhibited. Major changes have included the deletion of two entire car-parks, a reduction in the total number of car spaces and alterations to the management and allocation of spaces. As a consequence, the location of the proposed car parks now more closely complies with the areas designated on Illustration 20 of the DACMP and the objective of removing cars from the core area. The exception to this is the proposal by the co-proponents to access the existing parking area opposite S1 for guest check-in.  Taking the above matters into account, the determining authorities have formed the view that not all the revisions to CP1 and CP5 proposed by the Commission are necessary to protect the significance of the site. The determining authorities therefore consider that:  € CP1 may provide up to 120 car spaces, constructed in two stages as proposed by the co-proponents. All day visitors, and some overnight guests, should park in CP1; and  € CP5 may provide up to 56 car spaces, constructed in two stages as proposed by the co-proponents. CP5 may provide parking for staff and overnight guest accommodation parking (but no day visitors, including conference attendees).  The determining authorities are satisfied that the physical construction of both CP1 and CP5 is unlikely to have an overly	151, 154(h)	
€ no independent vehicular access is permitted beyond CP1 except vehicles transporting disabled visitors, staff, service and contractor vehicles, emergency vehicles and internal shuttle bus service.						
€ staff vehicles shall be parked in CP5. A maximum of 40 spaces may be provided in CP5 subject to detailed design which shall avoid encroachment onto the backyards of Buildings S12 and S4 and removal of the Eastern Suburbs Banksia Scrub opposite to Building S12. Fencing may be required on the eastern side for Bandicoots.						

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW		Condition(s) recommended by determining authorities
	Page No.	Rec. #	Condition#	Comment/Response			
					adverse impact on the Long-nosed Bandicoot population or Eastern Suburbs Banksia Scrub, but support the fencing on the eastern border of CP5 as a precautionary measure. The subsequent operational impacts of car access to the site will be managed through other relevant conditions, so that adaptive management of the activity may occur.  Issues associated with the impact of vehicles on Long-nosed Bandicoots, including the option of applying vehicle curfews as an adaptive management measure, are discussed in Table 7.		
€ the existing car park opposite Building S1 shall be used only by service and internal vehicles such as the people mover and shuttle bus.	147, 173	16(d)	15.11.7(d)	The determining authorities agree that ultimately there should be no car-parks or private vehicle access beyond the boundaries specified in the DACMP. However, given that no construction is involved (car-parking already exists in this area) and noting the need for the co-proponents to establish an efficient and viable basis for servicing the accommodation functions, the determining authorities are of the view that limited parking may be provided for guest check-in and luggage drop-off in the vicinity of S1. To ensure compliance with the DACMP, parking may only be provided in this area on an interim basis and should be gradually phased out within specified time periods.  The view of the determining authorities is consistent with the s.114 advice from the Minister for Planning.	151(c)		
€ commercial buses shall not have access to the site beyond CP1.	173		15.11.7(f)	The determining authorities share the concerns of the Commission regarding bus parking along the roadside. In particular, as one of the two gateways to the site (the other being the wharf) there is a clear need to ensure that the arrival experience for visitors is not diminished by the pragmatic needs of parking at the site.  The determining authorities note that the PAS proposes that "coaches" would not access the site, but would drop visitors at the site entrance. The determining authorities are generally satisfied that adequate arrangements can be made for coaches to drop-off visitors at the entrance to the site.  However, "buses" would still access the site to turn around via the loop round and it is proposed to construct several bus parking bays alongside the road near A26. These would be used for 24 months while off-site options are explored.  The determining authorities consider the exclusion of coaches to be a positive feature of the proposal but are concerned at the likely impact of the bus parking area and the movement of buses within the site. On this basis, the determining authorities consider that in the medium term there should be both no bus or coach access to the site beyond CP1. While CP1 is being constructed, buses (but not coaches) may access the site and use the loop road and the temporary parking area alongside A26. Once CP1 is completed (within two years) parking for buses and coaches may be provided in CP1 if this is feasible, otherwise alternative arrangements will need to be made.  The position of the determining authorities is generally consistent with the s.114 advice from the Minister for Planning, although the Minister's views regarding temporary on-site bus parking are not clear.	150, 151(d)		
€ no bus/coach parking along roadside.							
€ no overflow parking is permitted within the Station.	147, 173		15.11.7(e)	DACMP Policy AIP3.5 states that overflow parking to accommodate "standard operational needs is not acceptable". The determining authorities consider that this allows some flexibility in providing overflow parking and do not agree with the Commission's blanket recommendation that no such parking be provided.  On this basis, the determining authorities recommend that overflow parking be made available for up to 6 special events or activities per year. This would include the two community open days and other events (such as re-enactments and festivals) that are not part of the normal operations of the site (such as tours). Only 50 parking spaces should be available using existing formed roads.  In addition, as an interim measure the determining authorities are also agreeable to overflow parking for up to 50 cars to be provided during construction of the car-parks.	152		

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
				The determining authorities consider that these limitations are consistent with the intent of the DACMP, would facilitate community access and interpretation and would not place unacceptable risks on the values of the site (including potential risks to the Long-nosed Bandicoot).		
€ to minimise the requirement for on-site car parking, the co-proponents shall undertake negotiations with other land owners on North Head regarding options for off-site car parking arrangements.			15.11.8	It is noted the co-proponents agree with the Commission's recommendation. The conditions of approval address this matter further.	29	
€ following the first year, and at annual intervals thereafter, the co-proponents prepare and submit to the QSRG a "Car Parking Status Report" addressing, but not limited to, various specified matters.			15.11.9	The determining authorities do not consider that a separate report needs to be prepared for car parking and consider this can be addressed as part of the overall visitor and integrated monitoring program for the site.	No specific condition warranted	
<u>Management of on-site vehicle access</u>						
€ vehicle access to the site is to be managed by staff located at the site entrance and a boom gate.			15.12.1	The determining authorities are satisfied that the proposals in the PAS to upgrade the boom gate and control access via an intercom are sufficient.	147	
<u>Car park construction and road works</u>						
€ prior to car park construction various assessments shall be undertaken, including geotechnical, soil and archaeological surveys.	98, 131, 153, 155, 173		15.13.1 15.13.2 15.13.3	The determining authorities agree that appropriate assessments should occur during the detailed design of the car parks, prior to construction commencing.	37(f) & 154	
€ all car park and road works shall require the issue of a construction certificate by the PCA. Various issues are to be addressed in the certificate.						
<u>Other access issues</u>						
€ school children's behaviour an issue to be dealt with by management agency.	152			The determining authorities agree and have recommended a condition of approval in this regard.	137	

ISSUES (as per COI report)		SOURCE				DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	Condition(s) recommended by determining authorities
€ overnight visitors access should not be restricted on a precinct basis subject to satisfactory outcomes of environmental monitoring.		64			The determining authorities agree and note that this is now part of the proposal.	No specific condition warranted	
€ to assist increased public access, charges for educational facilities should be formalised in the lease agreement		46			The determining authorities generally agree with the Commission's view that charges for educational facilities should be formalised to ensure increased public access. The conditions of planning approval address the pricing of services at the site. Exact details of the educational pricing are best addressed in the context of the lease agreement.	122.23 & 136	see also Section 4.12.6 and Table 12

## **4.5 Infrastructure**

### **4.5.1 Context**

The remaining infrastructure on the Quarantine Station site has acknowledged historic value. The QSCMP proposes that the best examples of each type of service infrastructure be conserved and interpreted; that an infrastructure control plan be developed to guide upgrade works; and that stormwater and waste be managed to protect the adjoining aquatic reserve. The DACMP sets out policies for the introduction of new services and upgrading of existing services, and retention of the existing pattern and construction of the road system. Policies regarding the conservation of stonework and other materials are also relevant.

The existing water system capacity at the mains connection is unclear, however Sydney Water has advised that any increase in demand would require system amplification. The system is relatively old and in poor condition. The sewage system was recently upgraded, however further upgrade works are likely to be required. The existing design capacity is unclear, however limitations have been placed on the maximum sewer pumping rate.

Stormwater currently discharges directly onto the ground and into the stormwater drainage system, with a primary outlet at Quarantine Beach.

The Quarantine Station is serviced by electricity and telephone. Telephone lines are located in an underground conduit, while power supply generally consists of overhead cabling on poles.

The existing road system is bitumen over road base, with brick or stone road kerbs in some areas.

### **4.5.2 Proposal and likely impacts**

The proposed changes to infrastructure and potential impacts of these changes are outlined in Chapter 16 (stormwater) and Chapter 17 (water supply and sewer) of the EIS, the draft Site Masterplan (Appendix 1 vol. 3) and the PAS.

Key proposals include:

- € provision of a sewer connection from A6 (restaurant) to the existing system in A7;
- € installation of two 45,000 litre water reservoir's and pumping equipment near the Lower Reservoir<sup>24</sup>;
- € repairs to stormwater management systems;

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<sup>24</sup> as noted earlier, the PAS proposed that the water tanks be located at the Stonemason's Yard. The co-proponents have proposed to amend this because the Lower Reservoir location provides easier access to the water main.

- € repairs to existing water reservoirs, and installation of a fire safety system across the site, including duplication of the existing water supply to provide a separate system for fire management;<sup>25</sup>
- € repairs to the wharf structure, including new deck lighting, rubbing strips and mooring cleats;
- € downsizing the existing stormwater pipe at the beach to one third its existing size;
- € upgrading of electrical systems, including installation of an electrical service to A6 (via the Funicular stairway) and low-level lighting, together with the removal of some existing poles and overhead cables (to be replaced with trenched services);
- € installation of a 1,000 to 1,500 litre grease trap in the Wharf Precinct and establishment of a waste management area between Buildings A6 and A7, to include a compactor; and
- € road repairs and installation of a timber kerb in some locations.

The EIS also indicated that a review of the water and sewer systems would be undertaken prior to any works commencing.

The proposal was modified following the COI hearings to include the installation of the two water reservoirs near the Lower Reservoir noted above. This was in response to additional information provided by Sydney Water indicating that, based on the information available, amplification of the system may be required for the activity to proceed. With respect to sewer services, Sydney Water indicated that there is capacity in the existing sewer to accommodate the increased daily flows from the proposed development, subject to minor modifications (relating to odour generally and rehabilitation of internal sewers to minimise stormwater infiltration).

It is also noted that the original proposal included installation of a gas line to the site, including a connection to the restaurant in A6 via the Funicular stairway. This element does not appear in the PAS and it is now proposed to install an electrical service pipe to the underside of the stairway and provide a LPG tank external to A6.

Potential impacts associated with infrastructure works include impacts on archaeological remains and possibly Aboriginal sites, impacts on fabric, a loss of significant services and visual impacts.

#### **4.5.3 Proposed mitigation measures**

A range of mitigative measures are proposed in the PAS. These include:

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<sup>25</sup> the PAS proposed that the fire hydrant upgrade would occur within 2 years. The co-proponents have proposed to extend this timeframe to 5 years as further investigations have indicated that substantially more works are required than previously understood.

- various stormwater management and design measures, such as installation of a collection and filtration system in the car parks, provision of grass swales downstream of car parks, etc;
- undertake a detailed review of current water and sewerage systems and upgrade the systems as required;
- develop a program to monitor water consumption and apply adaptive management measures when demand approaches maximum supply;
- replacement of the water main and installation of water saving devices; and
- installation of rubbish bins and soil management measures during infrastructure works.

#### **4.5.4 Submissions**

Fourteen submissions (1.3%) were made regarding infrastructure. Respondents included Sydney Water, NSW Fisheries, the Environment Protection Authority, Manly Council, and community groups and individuals.

The key points raised in the submissions were:

- ⌘ water system – Sydney Water advised there is inadequate pressure in existing mains to support a development that requires peak flows, and amplification would be required. Sydney Water did not consider upgrading the system in the short term to be an option;
- ⌘ sewer system – Sydney Water advised the system would require amplification in this section of Manly to accommodate any additional flow from the development (as noted above, this was revised in a subsequent submission to the COI). Any amplification should be undertaken in consultation with Manly Council and be informed by future growth scenarios;
- ⌘ stormwater – concern about potential impacts of stormwater runoff on water quality in Sydney Harbour; inadequate assessment of levels of stormwater discharge; need to consider mechanisms for reducing stormwater quantities;
- ⌘ requirement to obtain a Section 73 Compliance Certificate from Sydney Water prior to development proceeding;
- ⌘ concern about the lack of information on the capacity of existing systems and thus the robustness of the impact assessment;
- ⌘ potential for sewer / water overflows, leakages, insufficient supply and resultant environmental impacts;
- ⌘ potential cumulative impact at North Head on demand for sewer/water not addressed in EIS;
- ⌘ impacts of any upgrade works on site values;
- ⌘ costs of system upgrade not considered in assessment of economic viability; and
- ⌘ improved stormwater management will result from proposal.



#### **4.5.5 Commission of Inquiry findings and recommendations**

The Commission's findings and recommendations with respect to infrastructure are detailed in Table 9.

#### **4.5.6 Discussion and conclusion**

Broadly, the determining authorities are of the view that the infrastructure works required for the proposal will not have a significant environmental impact. This is provided that these works are undertaken in a structured and consistent way, and are based on a further assessment of capacity, condition, and heritage value prior to detailed design and implementation of works. Exceptions to this general view include the proposed reduction in size of the stormwater outlet at Quarantine Beach and the removal of overhead power poles within the Wharf and First Class Precinct, as discussed in Table 9.

A minor matter not specifically considered by the Commission is the proposed sampling approach to AC rainwater systems. The DACMP requires the removal of AC rainwater systems from the site during the first maintenance period (0-12 months), and the retention of one building or area with an intact rainwater system that is in reasonable condition for sampling and in an area with restricted public access. The original EIS suggested that Building S7 would be used to achieve this (draft Site Master Plan, p.106), although it appears this is not proposed in the PAS. Given that the rainwater system on this building is not original (colourbond and AC cladding), is located at the entrance to the site and is proposed for active NPWS use, it is not considered an appropriate building to sample. Condition 111 addresses this issue.

As noted above, following completion of the PAS the co-proponents subsequently proposed a change to the timing of the fire hydrant upgrade from two to five years. The main reason for the proposed timing amendment is that further investigation has shown that the scale of work required is substantially greater than was originally envisaged. Given recent events at the site the determining authorities consider that establishment of a fully functioning and contemporary system for fire management must be a high priority. Nevertheless, it is acknowledged that upgrading of the fire hydrants will be a major capital investment. Noting that other measures addressing fire safety are specified in the PAS or conditions of approval, the authorities are satisfied that the extension of the fire hydrant upgrade to 5 years is reasonable. However, satisfactory interim fire safety measures must be detailed in the emergency and evacuation plan (condition 205) and implemented by the co-proponents.

**Table 9 - Commission of Inquiry outcomes – infrastructure**

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response		Condition(s) recommended by determining authorities
<p><b><u>Separate approvals</u></b></p> <p>A separate approval would be required for the following matters:</p> <p>€ any upgrade works to the wharf, excluding the renovation, fitout and conservation works, as defined in Table 3b of the "Draft Site Master Plan for the Adaptive Re-use of the Quarantine Station"; and</p> <p>€ amplification of the existing water supply/sewerage system, excluding renovation, fitout and conservation works, as defined in Table 3b of the "Draft Site Master Plan for the Adaptive Re-use of the Quarantine Station".</p>			6.1	<p>The determining authorities generally agree with the COI recommendations regarding other works on the wharf and water and sewer system. This is also agreed in the PAS.</p> <p>The need for structural survey of the wharf prior to commencement of the ferry operation is discussed in Table 5.</p>	41	
<p>€ there is insufficient evidence to enable an environmental assessment of the proposal to relocate the stormwater pipe on Quarantine Beach. This should be subject to a separate application and approval.</p> <p>€ the Commission notes that approval for works to the stormwater pipe is not being sought. The Commission recommends a separate application for such a proposal.</p>	157, 180			<p>It has been unclear throughout the EIS and COI process whether, and what, changes were proposed to the concrete stormwater pipe. The PAS seeks approval to reduce the size of the concrete stormwater pipe and this is justified in terms of a better match between the size of the facility with discharge rates and improved visitor safety. However, there has been no assessment of the environmental impact of this component of the activity, and no assessment of the required capacity of such a facility. Key potential impacts that need to be addressed include impacts on seagrasses, the aquatic reserve and heritage values (the DACMP states that the pipe should not be removed or relocated from its current alignment).</p> <p>The determining authorities therefore consider that this component of the activity should not be approved as part of the current approval. As noted by the Commission, this does not preclude a separate application being lodged for this work, supported by an appropriate level of assessment.</p>	104	Schedule 2
<p><b><u>Infrastructure Plan</u></b></p> <p>€ issues concerning water supply and the sewer system would not significantly impact on the site subject to the preparation of an Infrastructure Control Plan.</p> <p>€ the co-proponents shall prepare the plan within 6 months as part of the EMP. The plan shall be prepared in consultation with NPWS, Sydney Water, Energy Australia and other relevant authorities and shall address various specified matters.</p>	181		15.18.1	<p>The lack of clear information regarding the capacity and condition of water/sewer infrastructure servicing the Quarantine Station has hindered an assessment of potential environmental impacts of the proposal with respect to infrastructure requirements. However, taking into account advice from Sydney Water to the Commission, the determining authorities generally concur with the views of the Commission.</p> <p>The determining authorities also agree with the Commission that the ICP should be identifiable as a separate document; however it is not considered essential to include the ICP in the EMP. Providing that any relevant strategies identified in the ICP are reflected in the EMP where necessary, the determining authorities consider that the practical inter-relationship of these documents is a matter for the co-proponents to determine.</p>	105	

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ Infrastructure Control Plan should form part of EMP, but be able to be identified as a separate document.				The determining authorities consider that the ICP should address all infrastructure elements at the site and not just be confined to sewer and water matters.		
<u>Other infrastructure matters</u>						
€ Commission disagrees with proposal to remove 3 power/light poles in area between A7, A8 and A11-12.						
€ Overhead power lines and poles in 1 <sup>st</sup> and 2 <sup>nd</sup> class precincts not to be removed.	74			The determining authorities concur with the Commission's view regarding the removal of power poles. The removal of electrical power lines in the Wharf and First Class Precinct is primarily justified by the co-proponents in terms of visual amenity, rather than functional grounds (although the PAS refers to safety reasons also). This is clearly inconsistent with the policies outlined in the DACMP, which specifically state that the significant services (this includes electrical power lines supported on timber and/or steel posts) shall be retained in-situ and not removed and replaced with subsurface infrastructure.  The determining authorities therefore recommend that this aspect of the proposal not be approved, with the exception that damaged or deteriorating infrastructure may be repaired or replaced with similar infrastructure.	Schedule 2	
€ Design of sub-floor services for P8, P9, P10 should have no adverse impact on archaeological resource.	87, 89			The determining authorities generally agree with the Commission's statement with respect to sub-floor services, and consider that this is adequately addressed by condition 37(g), which requires an archaeological assessment to be undertaken in accordance with the QSAMP as part of any application for construction works.	37(g)	
€ Area around P11, P12 and P13 should be subject to archaeological assessment.	90			As above.		
€ A Stormwater Management Plan should be prepared in consultation with Sydney Water and EPA, as part of EMP prior to operation of the proposal.	180			The determining authorities agree with the Commission's views regarding the need for strategies to manage stormwater and it is noted that minor increases in the quantity of stormwater runoff may occur (eg. from car parks).  The determining authorities have considered the provisions of the FMA, SEPP 56, SREP 23 and the Recovery Plan for Little Penguins with respect to stormwater management and the protection of significant marine ecological values, terrestrial and aquatic habitat. The determining authorities are satisfied that potential stormwater impacts can be managed by appropriate conditions on any approval.  In this regard, the determining authorities consider that stormwater management can most effectively be addressed through the Infrastructure Control Plan, and that a separate Stormwater Management Plan is not required. This is particularly given the inter-relationship of the stormwater and sewer systems on site.  Strategies developed for stormwater management as part of the ICP could be reflected in the EMP as needed. Related issues, such as erosion and sediment control, will be addressed in the EMP prepared prior to the commencement of construction works.	105-106	
€ widening, kerbing and channeling of the internal road system in accordance with Australian Standards would not be appropriate.	175			The determining authorities agree and consider that issues associated with road repairs can be satisfactorily addressed through the subsequent construction approvals process.  Other matters regarding road access and traffic calming devices are also addressed in the conditions of approval.	Key conditions include: 35, 106(c), 145-46, 148 & Schedule 3	

## **4.6 Soil**

### **4.6.1 Context**

The site contains highly erodible Pleistocene dune sands that are a wind and water erosion hazard. Soil erosion is widespread across the site, but relatively minor in nature. Some areas containing contaminated soil have been identified.

Policies outlined in the QSCMP include: research into geodiversity; protection of geodiversity; and the preparation of guidelines for development works to protect highly erodible soils. The DACMP provides a number of subsidiary policies regarding soil, including: the need for stabilisation of areas subject to erosion; the maintenance of roads/paths and drainage systems; restriction of access; a feral animal program (rabbits); and limiting the extent of cut and fill.

### **4.6.2 Proposal and likely impacts**

The proposed changes to soils and likely impacts are outlined in Chapter 13 of the EIS, the draft Site Masterplan and briefly in the PAS (Table C-1). Rehabilitation of eroded areas would be undertaken, however there is no proposal to address existing soil contamination issues. The main impacts that could arise from the proposal would occur as a result of the construction of car parks, landscaping works, installation of in-ground services, increased visitor numbers and vehicles (relating to fuel spills).

### **4.6.3 Proposed mitigation measures**

A range of mitigative measures are proposed in the PAS. These include:

- € inclusion of erosion control measures in the Landscape Management Plan;
- € minimising clearing around work sites and protecting vegetation and sensitive areas (eg. through barriers);
- € installation of sediment control measures;
- € regeneration of disturbed areas at the completion of works;
- € undertaking of soil surveys prior to car park construction;
- € incorporate an emergency response system for discharge and spillages into the EMP and train staff in emergency procedures; and
- € regularly maintain and clean on-site vehicles to prevent spillages.

### **4.6.4 Submissions**

Two submissions raised issues regarding soils and contamination – Manly Council and the Department of Land and Water Conservation. Key issues identified were:

- € concern about soil erosion (particularly with car park construction) and the need for rehabilitation works across the site;

- € need to consider soil and hydrological characteristics to ensure that no significant hydrological changes result from car park works; and
- € need to apply best practice methods to limit risks of soil contamination given sandy soils.

#### **4.6.5 Commission of Inquiry findings and recommendations**

The Commission's findings and recommendations with respect to soils are:

1. site contamination issues (eg. potential industrial waste, asbestos) are capable of being addressed in the EMP (p.182); and
2. archaeological assessment and soil surveys are required before car park works are undertaken (to refine drainage design and minimise disturbance to existing soil water characteristics downstream) (planning condition 15.13.2).

#### **4.6.6 Discussion and conclusion**

Taking into account that limited subsurface works are required for the activity, that visitors will be encouraged to stay on formed tracks and routes, and noting the measures proposed to manage soil erosion and potential contamination during construction and operation, the determining authorities are satisfied that the activity will not have a major impact on soils on the site. Nevertheless, given the potential erodibility of soils, the determining authorities recommend that conditions be applied to ensure a best-practice approach to soil management. Relevant requirements can be found in conditions 197-198.

The proposal does not include any measures to address current soil contamination problems and evidence presented to the COI suggested that there is potential for contamination resulting from the various previous activities at the site. To ensure that the site is appropriately assessed and remediated (if necessary), the determining authorities recommend that a condition be applied requiring an investigation of known and potential areas of contamination, prior to works commencing in such areas (condition 196).

### **4.7 Noise**

#### **4.7.1 Context**

Current noise on the site is generated by activities undertaken by NPWS staff and visitors, road traffic (within and outside the site), harbour activities and natural elements (wave and wind noise, birds, etc). It is understood that since preparation of the EIS the NPWS Area office and depot have moved to another site and this is likely to have reduced current noise levels.

The QSCMP and DACMP require compliance with relevant statutory requirements such as the BCA, which has relevance for acoustic separation in buildings. The DACMP also outlines broad policies with respect to conservation and use which emphasise the need to retain the essential character of the place. However, no specific noise policies are outlined.

#### **4.7.2 Proposal and likely impacts**

Chapter 18 of the EIS addresses noise and likely impacts. The likely noise sources for the renovation and operation periods are identified, together with

the relevant EPA criteria and guidelines. The conclusions of the assessment were that:

- € construction vehicle traffic is unlikely to have a significant effect on the local community;
- € noise levels will not be exceeded during construction;
- € criteria for traffic noise (during renovation and operation) will not be exceeded for road traffic; and
- € noise levels associated with the restaurant could exceed criteria set for accommodation buildings within the site (with a small band playing at night), but not external to the site.

It was further clarified at the COI hearing, and subsequently in the PAS, that live amplified music is not part of the proposal.

The determining authorities consideration of likely traffic noise impacts has also been informed by the conclusions of an independent specialist report (PPK, 2001). That report noted that while the methodology used in the EIS may not be the most appropriate, the conclusions regarding traffic noise are nevertheless reasonable. The report also notes that noise monitoring at selected locations would provide a reliable basis for targeting any noise mitigation treatments that may be necessary.

Potential noise effects associated with the proposal include disturbance to fauna, impacts on local residents (either in the immediate proximity of the site or in the surrounding harbour area), impacts on accommodation guests, and impacts on the 'atmosphere' of the site. The determining authorities particularly note that the potential impacts of noise on Long-nosed Bandicoots are a significant issue for consideration.

#### **4.7.3 Proposed mitigation measures**

A range of measures are proposed in the PAS, including:

- € the use of a ferry service to minimise vehicle traffic;
- € implementation of restricted working hours;
- € design and fit-out of the restaurant in A6 to avoid noise being directed towards the beach or Cannae Point;
- € no live amplified music; and
- € monitoring to ensure that noise and equipment used on site complies with Australian Standards, and requirements of the EPA and Liquor Administration Board.

#### **4.7.4 Submissions**

Ten submissions were made regarding noise. Respondents included the EPA, Manly Council and individuals. Key issues raised were:

- ⊄ the need for an assessment of other noise sources within the site, potential sleep disturbance impacts and clarification of the assessment of noise from a band;
- ⊄ the need to develop an Operation Noise Management Plan and implement noise mitigation measures with respect to road traffic;
- ⊄ concern about noise from the operation and impacts on ambience;
- ⊄ concern about the adequacy of the noise impact assessment on residents (eg. across the water – an existing problem with functions), including potential health problems; and
- ⊄ noise impacts on fauna (eg. Little Penguins and Bandicoots).

#### **4.7.5 Commission of Inquiry findings and recommendations**

The Commission's findings and recommendations with respect to noise are detailed in Table 10.

#### **4.7.6 Discussion and conclusion**

It is acknowledged that the proposal will generate higher noise levels than currently exist, both within and outside the site. In considering whether this will result in an unacceptable environmental impact, it is useful to examine the issue from both a sensory and technical perspective.

##### (a) Sensory

Concern has been raised about the impact that increased levels of noise would have on the ambience and significance of the place. The determining authorities note that while noise levels will increase to some degree, this is not necessarily inconsistent with historic usage of the site, when many thousands of people were housed during plagues and epidemics. It is probable that noise levels were higher, at times, than those currently experienced. Noise generated during the proposed operation will largely be from people, vehicles and to a lesser extent the operation of facilities. With the exception of vehicles, this is again generally consistent with historic use patterns for the site.

##### (b) Technical

Advice from the EPA and an independent assessment (PPK, 2001) regarding the noise assessment has been taken into account in considering noise impacts. The following key technical issues have been identified:

##### **⊄ construction noise**

The EPA noise construction objectives appear to have been misinterpreted in the EIS for longer periods of construction, however this is not a major issue and can be addressed by the implementation of noise mitigation measures. Considering the type of work proposed (requiring use of small machinery and hand-held tools), the proposal to restrict construction hours and the application of other mitigation measures during works, the determining authorities are satisfied that noise levels can be appropriately managed during the construction phase. Recommended conditions are listed in Table 10;

#### € **operational noise**

The assessment of noise levels during the operation phase focused on activities around the restaurant and to some extent the tours. Other noise sources, such as vehicle movements within the site and plant associated with the facilities were not addressed, nor were potential sleep disturbance impacts, eg. on overnight visitors. Further, limited detail is provided in the EIS on the issue of acoustic separation in buildings. It is noted that the modification of the proposal to exclude car parks CP2, CP3 and CP4 will result in a reduction of vehicle noise in core areas of the site, however noise associated with tour and shuttle buses may impact on visitors.

The determining authorities consider that uncertainty remains regarding the levels of noise that will be generated from various noise sources during the operation. While this is unlikely to result in a significant environmental impact, the determining authorities recommend that on-going noise monitoring and adaptive management measures be required as a condition of approval;

#### € **road traffic noise**

The determining authorities have some reservations about the potential for noise levels to rise beyond predicted levels and potentially exceed EPA criteria. It is therefore recommended that regular noise monitoring occur in a number of specific locations, and that an adaptive management approach be implemented in responding to any increases in noise levels where these exceed EPA criteria (condition 200 and 202); and

#### € **Long-nosed Bandicoots and Little Penguins**

The determining authorities are satisfied that potential impacts of noise on these populations can be addressed via conditions of approval. Such conditions cut across a range of areas, including controls on the hours of operation, traffic management and monitoring.

Given the above, the determining authorities consider that the noise impacts associated with the activity are manageable and within an acceptable range.



**Table 10 - Commission of Inquiry outcomes – noise**

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>General</u>						
€ the Commission has considered potential increases in traffic noise at night, and considers that these will be within EPA road noise criteria.	170-171	16		The determining authorities generally agree with the conclusions of the Commission. Potential noise impacts on Long-nosed Bandicoots will be minimised to acceptable levels via the conditions of approval that address noise issues and via a range of other conditions that were discussed in Table 7.	No specific condition warranted	
€ no appreciable increase is expected in noise in the immediate area due to construction.						
€ the proposed night shuttle bus service from Manly to the site may assist in managing noise levels.						
€ there shall be no amplified music on any part of the site, including the restaurant and at all conferences and functions, at any time.	139		15.17.3	The determining authorities generally agree. It is noted that amplified music is not part of the proposal.  The conditions of approval clarify the practical application of restrictions on amplified music and noise. In summary, no amplified "music" is to occur outdoors while other amplified "noise" should be restricted to that necessary for essential interpretive tours. This acknowledges that on occasions amplified noise will occur in outdoor areas.  In addition, a condition is recommended to limit the effects of amplified indoor noise spill both within and off-site. The recommended limit of 50 dB(A) is consistent with EPA amenity criteria for areas reserved for passive recreation (eg. national park) and in lay-terms equates to slightly more noise generated in a residential living room but less noise than would be generated in a business office environment (EPA 1999 & 2000).  Further, the determining authorities consider that it is important for the activity to be able to adapt with respect to noise issues, even if technical standards are being met. This is especially given the potential impacts of noise on fauna. As a consequence the conditions make provision for the DEC to direct the co-proponents to take measures regarding noise management if this is considered necessary.	201-202	
<u>Construction hours</u>						
€ all construction related activity shall be restricted to between 7:00 am to 6:00pm, Mondays to Fridays inclusive, and 8:00 am to 4:00pm Saturdays. There shall be no work on Sundays and public holidays.			15.17.1	The determining authorities agree with the need to have clearly defined working hours, particularly given the risk to Long-nosed Bandicoots around and after sunset. However, it is considered that low noise activities, such as painting, could occur on Sundays or public holidays within the defined hours.  It is noted that the co-proponents also generally agree with the Commission.	213	

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
<u>Hours of operation</u> Hours of operation shall be restricted as follows: € restaurant – no operations past 11:00pm; € conferences and functions – no operations past 11:00pm; € night tours – to conclude by 11:00pm.				15.17.2	The determining authorities generally agree but note the comments in the PAS with respect to the conclusion of the Late Ghost Tour by 12.00 pm. Given the limited size of the Late Ghost Tour Group, this is considered acceptable.	214-215
<u>Noise Plan</u> € as part of the EMP, the co-proponents shall prepare a Noise Management Plan for both the construction and operational phases of the activity. The Plan shall address various specified matters.				15.17.4	The determining authorities agree.	199

## **4.8 Light**

### **4.8.1 Context**

Current lighting at the site includes internal lighting of buildings, restricted external street lighting and some lighting of courtyard areas. Much of the site is dark at night. No policies are contained in the QSCMP regarding lighting. The DACMP contains policies with respect to compatible adaptive re-use that have broad applicability. Policies are also provided regarding electrical fittings, which include lighting fixtures and emergency lights.

### **4.8.2 Proposal and likely impacts**

Chapter 19 of the EIS outlines the proposal and likely impacts with respect to lighting. The proposal includes replacement of fluorescent street lights with low level bollard light fittings; directional lighting on the wharf; and sequential feature lighting of buildings and features for night tours. Potential impacts would arise from light spill (visible from the harbour); car parks and street lighting; and vehicle movements.

### **4.8.3 Proposed mitigation measures**

The PAS states several measures to mitigate potential light impacts:

- € preparation of a detailed lighting plan as part of the 1918 – Night Experience Tour;
- € design of lighting to avoid light spillage, especially in Little Penguin and Long-nosed Bandicoot habitat areas;
- € design of the restaurant in A6 to avoid lighting the beach area;
- € use of red-orange spectral lights in the Wharf Precinct (which potentially have less impact on Little Penguins); and
- € dimming the wharf lights following the last ferry.

### **4.8.4 Submissions**

Nine submissions were made regarding light impacts. Key issues raised were:

- € concern about increased lighting, the type of lighting (eg. neon, laser) and impacts on ambience; and
- € impacts of lighting on nocturnal fauna (including camera flashes and torches).

### **4.8.5 Commission of Inquiry findings and recommendations**

The Commission made only brief reference to potential lighting impacts. The main conclusions were:

1. no lighting should be installed along the fence fronting the cliff face (barrier fencing for the penguins) or the security fence separating the Station from the beach (p.139);

2. all lights on the wharf should be extinguished following departure of the last ferry for the evening (pp.119 & 139); and
3. night lighting design should have regard to the requirements of the DACMP that requires places of solitude, darkness and silence to remain within the Station, which would also assist in minimising disturbance to foraging Bandicoots (p.151).

#### **4.8.6 Discussion and conclusion**

It is likely that levels of light within the site will increase as a result of the proposal, with an expanded usage of buildings, better lighting of roads, lighting on the wharf and in car parks, and sequential lighting of buildings for tours. However, it is difficult to determine the extent to which lighting levels will increase in the absence of specific data on current lighting levels and the proposed future situation, and more detailed design specifications for lighting fixtures and installations.

The determining authorities agree with the Commission that the design of outdoor lighting on the site must be responsive to the environmental sensitivity of the site for Long-nosed Bandicoots and Little Penguins, and to its historic use and ambience. The determining authorities also agree with the findings of the Commission with respect to lighting of fences and lighting of the wharf at night.

In assessing lighting impacts, consideration has been given to a range of factors including the relatively sheltered location of the site; the intent of the proposal to maintain the existing atmosphere of the site; the proposed use of low level bollard lighting; and the likelihood that during peak periods of historic use (following introduction of electricity to the site), lighting levels within the site may have been higher than the current situation.

The determining authorities are satisfied that impacts from lighting can be managed and will not have an unacceptable environmental impact. However, it will be necessary to ensure that a consistent approach to lighting (including emergency lighting) is taken across the site and that appropriate measures are implemented to limit impacts on nocturnal fauna. The determining authorities consider that these matters would best be addressed through the preparation of a site-wide outdoor visitor infrastructure plan that deals with lighting and other matters (condition 112). Such a plan could be a component of the Landscape Management Plan.

The determining authorities also recommend that a sample installation of any emergency lighting be approved prior to general fitout, as per requirements of the DACMP (condition 113). While the co-proponents do not propose the use of neon lighting, in response to public concern about this issue and given that such lighting would impact on the heritage significance of the site, condition 114 is also recommended.

### **4.9 Visual issues**

#### **4.9.1 Context**

The site has high aesthetic values, both in terms of the cultural and natural landscape. Relevant policies in the QSCMP include: the need for compatible uses as these relate to site significance and the cultural landscape; the

characteristics of austerity and separation; and the unity of function and design. The DACMP also contains a range of policies that are relevant to the aesthetic values and visual aspects of the site, and specific policies for particular landscape features. These include: the need to retain the essential character of the place which encompasses isolation, segregation, remoteness, basic amenity and modified landscape; the role of natural vegetation in screening and revealing views; and visual issues associated with car parking. Other policies regarding finishes and building materials also relate to the visual aspects of the site.

Manly LEP shows the whole of North Head as a Foreshore Scenic Protection Area. The LEP requires the potential detrimental effects of a proposal on the amenity of such areas to be considered. The need to protect the visual quality of the harbour and ensure development is compatible with the character of the foreshore is also emphasised in the guiding principles for development in SEPP 56 and SREP 22 & 23.

#### **4.9.2 Proposal and likely impacts**

Chapter 15 of the EIS addresses visual amenity and potential impacts. A number of modifications were subsequently made to the proposal to reduce visual impacts following the COI process, the most significant of which are:

- € the deletion of car parks CP2, CP3, CP4 and parking in the Isolation Precinct;
- € the deletion of overflow parking in the grassy area near S14;
- € the deletion of the duckboard in the Wharf Precinct; and
- € moving the outdoor eating area at Building A6 back from the beachfront.

Following these changes, key aspects of the proposal that may have a visual impact on the site and its significance include:

- € overflow parking for special events and during car park construction along the upper road;
- € umbrellas and a shade structure combined with outdoor seating for the restaurant;
- € barrier fencing at both ends of Quarantine Beach and along the cliff face opposite A6;
- € reconstruction of P21, P22, P23 and H1; and
- € the introduction of certain landscape features, such as the Funicular stairway, tennis, croquet and badminton lawns, signage and symbolic fencing.

The proposal also involves visual improvements such as repainting and repair of buildings, and landscape works.

#### **4.9.3 Proposed mitigation measures**

Measures proposed in the PAS to mitigate visual impacts include:

- € low screen plantings and terraces for car parks;
- € walking track materials that reflect the natural and historic attributes of the site;
- € appropriate design of the Funicular stairway;
- € production of colour guidelines for buildings that use subdued colours, consistent with the former Aviation period; and
- € inclusion of fencing guidelines in the Landscape Management Plan.

#### **4.9.4 Submissions**

Thirteen submissions were made regarding visual impacts, by individuals and community groups. The primary focus of most submissions was on the visual impacts of the car parks. Key points raised in the submissions were:

- € visual impacts of new buildings (hotel, restaurant), car parks, more cars, Funicular stairway, duckboard, lighting, and signage; and
- € the need for an adequate assessment of visual impacts due to visual prominence of the site on the headland.

It is noted that submissions regarding the nature and scale of the development occasionally raised concerns regarding the construction of a new hotel and other new buildings. In a number of cases, these concerns reflected a lack of understanding of the proposal (eg. that it was proposed to construct a large number of new buildings to create a hotel).

#### **4.9.5 Commission of Inquiry findings and recommendations**

The Commission's findings with respect to visual impacts are largely addressed in other sections of this report, as these impacts would generally result from proposed changes to the landscape for car parking and internal site access. Briefly, the Commission recommended that:

1. fencing of inscriptions should avoid obtrusive visual impacts. Proposed works to inscriptions should be subject to an Inscriptions Management Plan (refer Table 5);
2. the outdoor eating area at A6 should not project beyond the northern façade of A6. A shade structure and umbrellas may be provided in this area subject to certain line of sight conditions (refer Table 5);
3. the proposed timber stair over the former funicular route would be too invasive in the landscape, and is not suitable having regard to the original use and archaeological and visual significance of the ramp (refer Table 5); and
4. the visual impact of a linear car park along the entry to the site would be detrimental to the essential nature of the Quarantine Station as a place of isolation and preserved bushland (refer Table 8).

#### **4.9.6 Discussion and conclusion**

Visual amenity is an important component of the site's significance. In assessing whether the proposal will have an unacceptable visual impact, it is useful to consider visual amenity from without and within the site. Consideration must also be given to both the overall experiential and visual qualities of the Quarantine Station site (including the landscape) as well as any discrete elements.

#### (a) External views of the site

The development guidelines and principles of SEPP 56 and SREP 22 & 23 place strong emphasis on retaining the visual qualities of the Harbour and foreshores. The DACMP policies with respect to the significance of the site and cultural landscapes also require the retention of scale and form to retain the site's overall character and appearance from viewpoints outside the site, and the conservation of those elements that contribute to the remote, isolated and segregated nature of the place.

The fact that no new buildings will be constructed as part of the proposal greatly reduces the potential for visual changes to, and impacts on the headland as viewed from the Harbour and adjoining areas. It also reduces the potential impacts on views and vistas looking out from the site.

The reconstruction of buildings P21, P22, P23 and H1 will involve rebuilding these structures in a form and style consistent with their earlier state, and as such the buildings will 'blend in' with the existing built landscape. Within the Third Class / Asiatic Precinct, the reconstruction of buildings P21, P22 and P23 will also interpret a former period of use and layout of this precinct. Car parks CP1 and CP5 will be capable of screening by vegetation and existing buildings, and again are unlikely to be highly visible from the harbour. The existing open grassed areas of the site will be retained, and landscape works will largely be confined to retaining the existing site layout, or returning certain elements to a former state (eg. tennis court, cottage gardens).

Outdoor seating associated with building A6 has the potential to be visible from the head of the wharf, a key arrival point to the site. The PAS supports the Commission's recommendations regarding the arrangement of this area to limit visual impacts. These are also agreed by the determining authorities.

The proposed Funicular stairway will be visible from the harbour, particularly given the design proposed by the co-proponents. Earlier photographs of the site suggest that the Funicular railway, when operational, was of a similar scale and may have been visible from the water; more recently this route has become overgrown with vegetation. As discussed in Section 4.1, as part of the interpretation of earlier states of the Quarantine Station and in accordance with the DACMP, the determining authorities consider that it would be acceptable to construct the Funicular stairway with its associated visual changes to the landscape. This is subject to further consideration of the design of this structure (Schedule 3 of the conditions of planning approval).

#### (b) Internal views of the site

The determining authorities consider that the nature of the proposal, which generally limits the introduction of new structures and elements to the site, has the effect of reducing the potential for unacceptable visual impacts within the site. This has been greatly improved by a number of modifications to the

proposal, particularly with regard to cars and parking. The movement of cars and other vehicles around the site, for example, will now largely be restricted to the perimeter of the site and car parks which were likely to have a major visual impact - CP2 and to a lesser extent CP3 – have been removed from the proposal. It is noted also that some elements, such as the duckboard in the Wharf Precinct, have been deleted. These changes effectively address most of the significant concerns about visual impacts from the proposal raised in the public submissions.

Where new elements are proposed, the determining authorities are broadly satisfied with the mitigative measures identified to minimise visual impacts. For example, infrastructure such as a waste management area and water reservoirs will be capable of being screened by buildings or vegetation, resulting in little change to the overall character of the site. Landscape elements such as paths will use materials that are compatible with the existing environment, and buildings will be repainted in appropriate colours, taking into account earlier paint finishes.

New landscape elements such as speed humps, waste bins, signage and road lights can be appropriately designed to ensure these are sympathetic with the site, however there is a lack of detail in the EIS and PAS regarding the location or design of these elements. Conditions addressing these matters are recommended by the determining authorities (conditions 106(c) and 112). A number of other conditions also contain provisions reflecting the need to minimise visual impacts.

Elements such as the symbolic fencing, new fencing and interpretation of the First and Second Cemetery have the potential to result in visual impacts unless these are appropriately designed. The provision of these elements, however, is generally compatible with the DACMP policies. It is recommended that conditions 118(b), 124 and the matters specified in Schedules 2 and 3 are applied to ensure that visual impacts associated with these aspects are minimised.

The proposals to repair or reinstate cottage fences and the former tennis, croquet and badminton courts would not necessarily have an impact on the site from a purely visual perspective. However, it may impact upon the significance of the cultural landscape, as reflected in the DACMP policy regarding the treatment of earlier landscape forms. The application of this policy to the proposal is somewhat unclear. Landscape issues are discussed further in Section 4.1.

Overflow car parking along the road leading to CP5 will change the character of this area. No specific guidelines are provided in the DACMP for this landscape unit. To ensure that overflow car parking does not become a regular part of site operations (this also relates to traffic management) and to limit visual impacts on the site, it is recommended that overflow parking only be provided in association with up to 6 approved events or open days per year or during the construction period for the car parks (condition 152).

An increase in visitor numbers could conceivably impact on the visual amenity of the site, particularly in terms of the experience of isolation offered by the site. This has been raised as a concern in several submissions. The determining authorities acknowledge that this is a subjective issue. However, it must be remembered that the Quarantine Station was designed and built



specifically for people, and that levels of usage varied considerably, from ten or so staff to thousands of people during epidemics or plagues. As such, an increase in visitor numbers will recreate the experience of earlier periods of site use. As discussed in Section 4.4, limits will be placed on visitor numbers and movement to and within the site.

In conclusion, based on an assessment of the landscape values of the site, the policies and appropriate use statements outlined in the QSCMP and DACMP, performance criteria outlined in relevant planning policies and the proposed mitigative measures, the determining authorities are satisfied that the proposal will not result in an unacceptable visual impact. This is subject to the application of appropriate conditions of approval.

## **4.10 Fire and emergency issues**

### **4.10.1 Context**

The Quarantine Station is vulnerable to bushfire and is identified as a discrete fire management area within the Draft Fire Management Plan for Sydney Harbour and Botany Bay (North) National Parks (NPWS, 2002b). Areas at North Head are identified as being of high bush fire hazard, although the Quarantine Station itself (ie. the area occupied by buildings and grassed areas) is considered to be of low bush fire hazard. Similarly, the “environmental assets” over the whole of North Head have been mapped as being at major risk (Manly-Mosman Bush Fire Management Committee, 2002).

The fire hydrant and water supply system at the site requires upgrading. There is also currently no formal emergency evacuation procedure for the site. As a result of recent fires on the site, the determining authorities understand that fire safety assessments have been undertaken and additional safety measures installed.

The QSCMP recommends the preparation and implementation of a fire management plan for the site. This is reflected in the DACMP’s requirement to prepare a plan of management for natural bushland which includes bushfire management. The DACMP also contains subsidiary policies regarding Building Code of Australia requirements that are relevant to fire management.

### **4.10.2 Proposal and likely impacts**

Fire management and emergency issues are addressed in Chapter 12 of the EIS. Key aspects of the proposal include the preparation of a detailed operation emergency and evacuation plan; designated smoking areas; upgrading of fire control systems so that hydrants comply with legislative requirements (to include BCA requirements for buildings); and appointment of fire wardens.

The PAS also notes that the proposal has been modified to include the installation of sprinklers in each of the highly significant wooden buildings.

Potential fire and emergency impacts as a result of the proposal are primarily associated with the use of equipment during construction and operation, increased visitor numbers and greater accessibility to the site.

### **4.10.3 Proposed mitigation measures**

The determining authorities note that there is a blurring between aspects of the proposal as these relate to fire management and broader emergency issues. This is somewhat unavoidable, as the management of fire risk at the site must necessarily address both the management of bushland and the protection of historic assets.

Proposed mitigative measures in the PAS include:

- € completion and implementation of the Fire Management Plan;
- € preparation of a detailed operation emergency and evacuation plan, prior to the commencement of any work or use of any buildings on the site;
- € storage of equipment in designated areas;
- € upgrading of fire control systems, including hydrants, consistent with the BCA;
- € undertaking of fuel reduction programs as part of the Fire Management Plan; and
- € provision of a high level of surveillance targeting known risk areas.

#### **4.10.4 Submissions**

One submission was made with respect to fire management, by a community group. The submission raised concerns regarding the risk of fire resulting from increased visitor access to the site, and the need to appropriately fund management programs.

While a small number of submissions (less than 5) made reference to the recent loss of building P22 to fire, this was generally with respect to loss of fabric, fire damage to moveable heritage, the issue of reconstruction and the financial implications of rebuilding.

#### **4.10.5 Commission of Inquiry findings and recommendations**

The Commission's findings in relation to fire and emergency issues are detailed in Table 11. Issues regarding the timing of upgrade for the fire hydrant system are discussed in Section 4.5.

#### **4.10.6 Discussion and conclusion**

The proposal has the potential to lead to an increased risk of fire and emergency situations occurring within the site. This is primarily as a consequence of greater numbers of people accessing the site and short-term risks associated with the conservation and adaptation works proposed (eg. risk of fire ignition caused by tools). However, it will also improve the current situation with respect to fire management through: the installation of fire protection mechanisms in buildings; upgrading of the current fire hydrant system within the site; and through an increased management presence allowing a more rapid response to fire outbreaks. The proposed extension of the timeframe for completion of the fire hydrant upgrade is discussed in Section 4.5.

The determining authorities are satisfied that the fire and emergency risks associated with the proposal can generally be mitigated by the strategies outlined by the co-proponents or as addressed in the conditions of approval

(including requirements for an emergency and evacuation plan). A specific condition is also recommended with respect to prohibiting the use of wooden buildings for fuel storage (condition 27). This is consistent with policies regarding appropriate uses of timber buildings contained in the DACMP.

**Table 11 - Commission of Inquiry outcomes – fire and emergency management**

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities		
<p><b><u>Emergency and Evacuation Plan</u></b></p> <p>€ the Commission is not satisfied that the linked issues of bushfire management, security and emergency management have been resolved.</p> <p>€ prior to the commencement date, the co-proponents shall prepare an Emergency and Evacuation Plan for the site as part of the EMP. The plan shall be prepared in consultation with the NSW Police, NSW Fire Brigade and the NSW Ambulance Service and shall address various specified matters.</p> <p>€ Fire Management Plan will need to be related to overall site security and emergency plan.</p>	182	15.19.	<p>The determining authorities agree that issues regarding fire management, security and emergency planning are a high priority. The preparation and implementation of plans to address emergency events and manage fire risk are essential to the safe undertaking of the activity and protection of the site's values. Relevant conditions of approval have been prepared.</p> <p>It is noted that the co-proponents also support the Commission's findings.</p> <p>In addition, the determining authorities have also recommended the preparation of a whole-of-site Security Plan to address issues such as lock and key systems, security alarms, enforcement powers and protocols for dealing with incidents.</p>	<p>9(e), 205</p> <p>116-117</p>		
		15.20.1	The determining authorities agree and note this is also agreed in the PAS.	209-210		
		15.20.2	The determining authorities generally agree but consider that the upgrading should occur as part of the staging of works across the site (condition 31).	211		
<p><b><u>Fire Safety</u></b></p> <p>€ prior to the commencement of use of any buildings on the site as part of the "activity", the co-proponents shall conduct a Fire Safety Assessment of all buildings on the site. The Assessment shall address various specified matters.</p> <p>€ all buildings are to be brought up to BCA standards for fire safety (or an acceptable alternative) within 2 years of the date of this approval. Upon completion of the work, the co-proponents are to submit a Fire Safety Certificate to the PCA</p> <p>€ an Annual Fire Inspection Report of the site's buildings must be undertaken by a Fire Protection Consultant and included in the annual environmental report</p>		15.20.3	The determining authorities agree.	211(c)		

## **4.11 Visitor health and waste management**

### **4.11.1 Context**

#### (a) Bubonic plague

The EIS notes that bubonic plague was recorded at the Quarantine Station over 100 years ago and has not been recorded in Australia for 80 years. People killed by this disease during the most recent 1900 epidemic were buried in the Third cemetery. Correspondence from the Department of Health indicates that threats to public health are highly unlikely (EIS Appendix G). The QSCMP identifies the need for further research into the role of the Quarantine Station in bubonic plague research, and the introduction and use of Long-nosed Bandicoots in medical research.

#### (b) Asbestos

Asbestos cement is present on the site in almost all buildings in the form of corrugated sheeting; corrugated fibre cement roofing; and/or materials associated with roofing. Asbestos insulation on site is generally in fair to poor condition, while roofing is in fair to good condition. The QSCMP refers to the need to develop guidelines for fabric assessment and sampling, while the DACMP outlines policies regarding: asbestos cement products; use and replacement of asbestos cement roofing; and the general conservation philosophy for the site.

#### (c) Waste

There appear to be no specific policies in the QSCMP or DACMP with respect to waste management.

### **4.11.2 Proposal and likely impacts**

Chapter 14 of the EIS addresses the issue of visitor health and potential impacts. Public health risks from bubonic plague are considered minimal, while renovation and conservation works, and natural events have the potential to disturb asbestos materials. Smoking would not be permitted indoors.

Issues associated with waste management are not discussed in detail as part of the proposal. However, it is noted that the area between A6 and A7 would contain waste management facilities, including storage bins, a compactor and grease trap. In addition, the EIS (p.10-31) proposed the use of fauna-proof bins.

### **4.11.3 Proposed mitigation measures**

Mitigation measures are outlined in Chapter 14 of the EIS and the PAS, and focus on asbestos materials. Measures include: the preparation of asbestos treatment guidelines and works; a safety check of the condition of roofs within 2-5 years; and implementation of a system for regular cleaning of gutters and roofs. The original EIS also indicated that procedures would be developed for implementation in the event that a grave was disturbed.

### **4.11.4 Submissions**

Visitor health was not identified as a key issue during the analysis of submissions. It is noted that the submission from the Aboriginal Health and Medical Research Council to the COI proposed the provision of Aboriginal managed and delivered health services as a potential use of the site. As noted above, correspondence from the Department of Health was also included as an attachment to the EIS.

#### **4.11.5 Commission of Inquiry findings and recommendations**

With respect to the issue of visitor health, the Commission:

1. considers that the issue of asbestos and potential health hazards are capable of being addressed in the recommended Environmental Management Plan (p.182);
2. accepts that it is unlikely that the proposed use of the site would present a public health risk (p.152); and
3. a waste management plan should be prepared and implemented as part of the EMP (p.181).

#### **4.11.6 Discussion and conclusion**

The determining authorities are satisfied that the risks to public health associated with the proposal are minimal.

The approach to waste management proposed in the PAS and the findings of the Commission are generally supported. Preparation of a waste management plan is recommended by the determining authorities (condition 203). It is noted that the management of fabric containing asbestos will also overlap with the conservation works program (condition 78) and the priorities identified in the DACMP.

In addition, the determining authorities consider that protocols need to be established to address the (albeit unlikely) event that disturbances to grave sites occur. Such protocols should be included as part of the emergency planning for the site (condition 205).

It is considered that the public health risks associated with smoking (eg. passive smoking) can be managed through the designation of outdoor smoking areas, as proposed in the EIS. No specific conditions are proposed.

The DACMP requirement to sample the AC rainwater system is discussed in Section 4.5 above. A similar approach is required for the sampling of AC vinyl tiles and condition 111 is recommended to address this.

### **4.12 Socio-economic issues**

#### **4.12.1 Context**

##### (a) Economic

The NPWS currently runs four operations at the Quarantine Station: a functions centre and associated accommodation; interpretive activities (tours); administrative and maintenance facilities for Sydney Harbour National Park; and staff accommodation for caretaking purposes. Thirty staff are currently

employed on site, including tour guides, with the majority living outside the Manly area.

According to the EIS, the NPWS has spent approximately \$7.5 million on conservation and maintenance of the Quarantine Station since 1984, with an average yearly expenditure of \$375,000. The current cost of operating the Quarantine Station is estimated to be \$1.632 million per year (includes functions, tours and site maintenance). In excess of \$6 million in immediate conservation works is estimated to be required (likely to be \$10 million with inflation by 2005), and annual maintenance works are required of between \$100,00 - \$300,000.

Funding is presently provided from: annual State government recurrent allocations; profits from on-site operations; and capital and special funding (such as the NPWS Heritage Asset Maintenance Program).

According to the co-proponents there is a significant shortfall between annual income generated by the site and expenditure associated with the business and maintenance operations. The EIS indicates that options for expanding the existing operation were explored by NPWS, however it was considered that sourcing the \$4.5 - \$6.5 million required was difficult to justify, given that a similar amount of funding was required for conservation works. It was also considered that the running of a major tourism operation was not NPWS core business.

#### (b) Social

The site has significance for the entire Australian community. Some people continue to have a personal connection to the place as a result of being interned or employed at the site. However, the site has low visitation rates, which could suggest a very low awareness of the site among the general community.

The local community has a strong sense of attachment and pride in the area and its environment, and a keen interest in the future of the site. While attitudes to development vary, there are growing community concerns that Manly could become overdeveloped, resulting in a strong interest in large development proposals. Manly is also a popular tourist destination.

The Quarantine Station is only accessible by vehicle or public transport (limited), and independent access is not permitted. Access for people with disabilities is limited, and there is restricted ability to address the needs of non-English speaking, hearing or sight impaired visitors.

Day and night tours are currently conducted each week. Day tours include a tour of the site and audio-visual presentation. Evening Ghost Tours are also run, as well as a separate tour for children. Approximately 20,000 people per year have taken a tour over the last few years, while approximately 10,000 came for a meeting or function. Evening tours are the most popular. Recent falls in visitor numbers have occurred in the schools and tour group markets.

#### **4.12.2 Proposal and likely impacts**

Chapters 7 and 21 of the EIS address the economic and social impacts of the proposal respectively.

(a) Economic

The EIS states that it is proposed to spend \$13 million on adaptive reuse of the site, of which \$4 million is for conservation works, \$6 million for service and infrastructure upgrades, and \$3 million for building fitout.

A cost benefit analysis was undertaken for the proposal, comparing the current situation (base case) with the proposal. Identified costs would be associated with conservation works, service upgrades, landscape works, improvements to visitor access and facilities, interpretive and educational programs and operating and maintenance costs. Identified benefits would include:

- € user benefits - a broader range and improved quality of visitor services, and enhanced educational and interpretive programs;
- € non-use benefits – existence and option benefits (eg. an improved ability to visit the site); and
- € bequest benefits - that is, values gained by conserving the site and passing these on to the next generation.

The cost benefit analysis concluded that in terms of the measures advocated by the NSW Government for economic appraisals, the proposal compares favourably with the current situation and is economically viable, having an incremental net present value of \$16.8 million. User benefits would also significantly increase.

Other economic benefits relate to direct and indirect employment and income effects. The EIS predicts that the proposal would employ 100 staff, targeting over 50% of these at local residents, and would indirectly increase economic activity within the local community (contracting local skills and services, stimulating tourist activity, etc).

(b) Social

The EIS and PAS identify a range of perceived social benefits from the proposal, such as:

- € increased visitor numbers and an improved visitor experience and understanding of the site;
- € improved equity of access and free access to parts of the site for the first time since 1984. This would include two annual community days for visitors to participate in free activities that explore the condition of the site and how it is being monitored and managed;
- € involvement of people who have personal and historical connections to the site; and
- € benefits to the local community such as employment and business opportunities, conservation of the site and promotion of water access to minimise further traffic.



Potential social impacts identified include: a sense of loss of ownership and control of public land; a sense of restricted access with transition from public to private sector operation; increased visitor numbers in local areas; competition from new accommodation development; potential increased impacts on the natural environment; traffic and transport impacts; and increased activity near Quarantine Beach.

#### **4.12.3 Proposed mitigation measures**

The proposed mitigative measures in the PAS largely focus on social issues. These include:

- € identifying a primary and back up staff member with responsibility for contact with the community on social impact issues;
- € ensuring open information exchange about the operation, including website updates, newsletters, advertising, etc;
- € establishment of a complaints management system;
- € implementation of measures contained in the draft Site Masterplan, draft Visitor Access Strategy and draft Interpretation Plan (these include a range of mechanisms, including multilingual programs, provision for disabled access, concessions for entry fees, etc);
- € implementation of the integrated monitoring system with a focus on traffic modal splits and visitor capacities, and limits on capacities if required; and
- € provision of at least 2 community days per year.

#### **4.12.4 Submissions**

Submissions on socio-economic issues were identified against four main categories:

<b>Issue raised</b>	<b>Number (% of submissions)</b>
€ cost/benefit analysis	108 submissions (9.9%)
€ amenity	209 submissions (19.1%)
€ conservation funding	62 submissions (5.7%)
€ other	147 submissions (13.4%)

##### (a) Cost/benefit analysis

Submissions on the cost/benefit analysis addressed both the conditions of the Conditional Agreement to Lease as well as the economic assessment

presented in the EIS. While the basic purpose of this part of the EIS was to assess the economic impacts of the proposal, and not the financial benefits of a lease agreement to the NPWS, many submissions considered that these issues were inextricably linked. This was especially as economic need was cited as a key justification for the proposal. The determining authorities acknowledge that the general position of the submissions was that the benefits of the project did not outweigh the costs.

Key issues raised in the submissions were:

- € the economic evaluation meets the basic requirements of NSW Government guidelines for economic appraisals;
- € inadequacy of the economic assessment, eg. inconsistent figures, absence of reliable information on income to be earned and costs to be incurred, certain costs not factored in. This includes: costs to NPWS of renting / relocating; NPWS monitoring and management responsibilities; community goodwill; and NPWS knowledge and experience of the site;
- € biased financial justification which limits the public's ability to assess whether this is the best option for the site from an economic perspective;
- € lack of consideration of recent world events (eg. September 11), and a general downturn in tourism, in assessing economic benefits of the proposal;
- € the true base case scenario is unclear – there is a lack of available and accurate financial information regarding the existing operations. NPWS has allowed the site to 'run down' and has not implemented a proper business strategy, thus the base case scenario doesn't reflect the potential of current operations to make a profit. This is relevant to the 'demonstrated economic need' for the project;
- € the NSW Government should provide adequate funding to maintain public assets and provide affordable access for the public. The developer will demand more once a profit is generated to maintain or increase the profit margin;
- € lack of publicly available information about the financial arrangements of the proposed lease – even though the public has borne the costs of the leasing and tendering process; and
- € the lease will not provide a reasonable economic return for a public asset and there is no certainty that the NPWS will get the intended financial benefits or that the financial arrangements will not change.

#### (b) Amenity

Amenity can be defined as the features or characteristics of the site that make it agreeable and pleasant, and it is an important part of the social value that the site has for the broader community.

The submissions used a range of words and phrases to describe the amenity of the site, and feelings associated with it. It is useful to list some of these to convey a sense of people's attachment to the place: ambience; simplicity;

serenity; peace; tranquillity; isolation; sense of solitude; beauty, including beauty of the Harbour and headlands; contemplation; centering; living history; special place of education; historic atmosphere; precious asset, untouched by development; unspoilt; essence of emotion and history; and need for open, green, public spaces.

The key concern in the submissions was that these values would be impacted upon by the development, and that the general community would no longer be able to enjoy these experiences when visiting the site or adjoining areas.

#### (c) Conservation funding

A number of submissions raised issues regarding the adequacy of funding for the proposed conservation works. Key points were:

- ⌘ lack of clarity as to the amount to be invested in conservation works. Some items of capital cost are for renovation and fitout works (damaging), rather than conservation works;
- ⌘ concern that funding for conservation works will be used to reconstruct Building P22, and as a result other urgent works on site will not be undertaken;
- ⌘ lack of detailed costings to support the \$6 million cited as being required for conservation works and this figure is based on outdated estimates;
- ⌘ lack of detail on the scope of works to be covered by the annual \$100,000 - \$300,000 contribution; and
- ⌘ submissions in support of the proposal noted that it would provide funds for conservation works on site.

#### (d) Other

Several submissions focused on the proposed entry fees and charges and the inequity of access to the site. Broader social impacts of the proposal on the community, such as Manly's sense of community, were also raised in some submissions. Key points included:

- ⌘ the proposed entry fee for the site and costs of tours is too high and will be unaffordable for many in the community. The general public will thus be unable to visit and enjoy this important heritage site. Instead, the site will become an 'elite' destination only affordable to a few;
- ⌘ the increase in current entry fees will violate the principles of equity of access and is contrary to SEPP 56; and
- ⌘ charges for use of the study centre by school groups are high and will exclude participation by students and adults alike. There is no provision for low cost options for day / evening visits. Further, student costs do not include teaching or guiding; teachers have insufficient budgets for the in-service training to be provided to teachers.

### **4.12.5 Commission of Inquiry findings and recommendations**

The key findings of the Commission with respect to social and economic aspects of the proposal are:

1. the Commission is satisfied on the balance of probabilities that the proposed activity is financially viable. However, taking into account the amendments made to the proposal and suggested conditions, the NPWS must consider whether a fresh appraisal of the costs/benefits should be undertaken (7); and
2. the proposed access arrangements, facilities to be established and services to be provided would improve and enhance public access to the site, and enhance public experience, knowledge and appreciation of the site's heritage and cultural values (9).

A number of supplementary findings and recommendations were also made by the Commission. The determining authorities' consideration of these matters is detailed in Table 12.

#### **4.12.6 Discussion and conclusion**

The assessment of the potential economic and social impacts of the proposal, and the potential impacts themselves, are clearly an issue of significant concern to many in the community. The determining authorities' consideration of this matter was guided by the findings of an independent specialist report (Gillespie Economics, 2001).

The key issues that arise for consideration are addressed below. It is noted that there is an inter-relationship between social and economic issues.

##### (a) Economic impacts

In considering the adequacy and conclusions of the economic impact assessment, reference has been made to the Director-General's EIS requirements and draft guidelines produced by the then Department of Urban Affairs and Planning (DUAP 1997).

##### **€ Cost-benefit analysis**

The independent review of the economic assessment (Gillespie Economics, 2001) concluded that the cost benefit analysis for the proposal:

- § was limited in that it only tested the proposal versus the base-case<sup>26</sup>;
- § had a narrow focus on financial costs and benefits;
- § potentially overestimated the net financial benefits of the proposal; and
- § was sensitive to changes in key assumptions such as increased operating costs or reduced revenue.

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<sup>26</sup> however, the review also noted that the options identified in an EIS must be feasible to the proponents, and thus the remaining 3 alternatives identified in the EIS could be excluded from the analysis if they were considered unfeasible based on a range of other criteria.

The review identified several other costs and benefits associated with the proposal, including potential impacts on fauna (a cost) and non-market recreation provided by free access to the Wharf Precinct (a benefit).

The review considered that the inclusion and quantification of these other potential costs and benefits of the proposal would only strengthen the economic benefits and make the results less sensitive to changes in key assumptions. Further, the review concluded that the proposal would provide an economic stimulus to the local economy during construction and operation of the proposal, although the overall impact was dependent on a range of issues.

In considering the extensive public submissions on this issue, it is clear that the decision by the NSW Government to lease the site to the private sector, and the financial provisions of the lease, were the key issues of concern. However, the determining authorities note that in assessing the impacts of the proposal, the key consideration must be the potential effects on the economic well-being or welfare of the community.

Thus, while the history behind the decision to lease the site and the effect of this on the site operations are a relevant consideration, this information must be weighed with other matters pertinent to the potential environmental impact of the proposal. It is not, therefore, the role of the EIS process to assess the financial provisions of the lease with respect to the financial model and profit sharing arrangements. This is a commercial arrangement between the Minister for the Environment and Mawland Hotel Management Pty Ltd. In this regard the determining authorities note that, as documented in the Commission's report, due diligence was applied in the tendering process.

The determining authorities acknowledge that the cost/benefit analysis presented in the EIS does not account for costs to NPWS such as relocation off-site but consider this to be a commercial decision for the NPWS (as a representative of one of the co-proponents). Such costs are unlikely to be of such high magnitude as to alter the outcomes of the assessment. In addition, it is understood that the NPWS has already moved the local Area Office and works depot to a site at Middle Head.

Overall, the determining authorities are therefore generally satisfied with the information provided in the EIS, as supplemented by the review undertaken by Gillespie Economics, and do not consider it necessary to undertake a further cost/benefit analysis. However, as noted in Table 12, the determining authorities do consider that it would be appropriate for the co-proponents to further evaluate the likely financial costs of the activity and their capacity to undertake the proposal. This would be timely given that a number of amendments have been made since the original proposal was developed and considering that comprehensive conditions of approval have now been issued by the Heritage Council and the Minister for Infrastructure, Planning and Natural Resources. Those conditions have also been included as recommended conditions of approval in this determination report.

The determining authorities note that as part of the continuing lease negotiations between the NPWS and Mawland Hotel Management Pty Ltd, further work has been undertaken to prepare approximate costings for implementation of the proposal and compliance with the above conditions of approval. In addition, it is understood that PricewaterhouseCoopers have

been engaged to undertake an independent analysis of the financial capacity of Mawland Hotel Management to undertake the project as approved and to ascertain if the financial projections supporting the commercial viability of the project are acceptable.

The determining authorities consider that these are appropriate steps to have been undertaken as part of the leasing process. Obviously, the outcomes of these analyses will be a key consideration for the Minister for the Environment with respect to any final decision to grant a lease.

#### € **Conservation funding**

The determining authorities consider that the proposal presents a relatively confusing discussion of what constitutes “conservation” work, exactly how much money will be spent on conservation works, and over what period of time. These issues were also raised in the public submissions. Additionally, the implications for conservation expenditure given the loss of P22 and H1, and subsequent proposed reconstruction, are unclear.

The PAS indicates that the co-proponents have a broad view of what should be considered conservation works for the purposes of expending the \$4 million. It would include:

- € the description and assessment of the heritage values of the site, including some of the data compiled for the technical assessments (it is assumed this relates to information obtained for the EIS);
- € building and infrastructure works, to the extent that they “demonstrably contribute to the physical conservation of the site”;
- € restoration of the cultural landscape;
- € curatorial work;
- € environmental management programs, including weed and feral animal control; and
- € a portion of works to improve visitor access (eg. disabled access) and visitor understanding of the place (eg. interpretive displays).

In examining this issue, the determining authorities have taken into account the QSCMP, DACMP and the Burra Charter. The Burra Charter defines conservation as “all of the processes of looking after a place so as to retain its cultural significance” (Australia ICOMOS, 1999), and states that cultural significance may be embodied in the place itself, the fabric, setting, use, associations, meanings etc.

It is clear that “conservation works” may extend beyond the protection of existing fabric on the site, which is the primary focus of the schedules of works presented in the DACMP maintenance assessment. It could feasibly include interpretation activities, facilities that allow for increased public access to the site, etc, providing that the key function is to retain the cultural significance of the site. Whether it could also include facilities that allow for a more comfortable visitor experience (eg. ensuites), or a better quality of visitor experience (eg. sound and light show) is open to debate.

The determining authorities have sought to define the boundaries of what constitutes “conservation works” and have recommended appropriate conditions of approval (condition 77). In doing so, the determining authorities have sought to strike a balance between physical building works (noting that the buildings are a major asset and that priority works have been documented in detail in the DACMP) and the other types of conservation works that would be acceptable at the site. As noted in Section 4.1, the determining authorities have also recommended an approach to ensuring that the conservation works are delivered in a timely manner.

#### (b) Social impacts

The determining authorities note that the independent review of potential social impacts concluded that the method of assessment in the EIS was adequate (Gillespie Economics, 2001).

Social impacts are concerned with the distribution of impacts between groups, individuals and others in the community, including physical impacts. In assessing the extent to which the proposal will impact on the community, three broad areas of concern are identified through the EIS and public submissions:

- € distribution of impacts across the community;
- € community attachment to and experience of the site; and
- € equity of access for all sections of the community.

As background to a further consideration of these issues, it is useful to note that over 70% of all submissions came from the northern suburbs of Sydney while a further 20% of submissions came from other areas of Sydney. This could suggest that the level of community concern about the future of this site is restricted to a relatively small proportion of Sydney’s population, with a geographical focus on the Northern Suburbs. However, it is also noted that it is generally the case that most interest in a development proposal usually occurs within the immediate community.

#### € **Distribution of impacts across the community**

The determining authorities consider that on balance, the proposal will provide a range of benefits for the Australian community that will off-set potential impacts, particularly where these may occur on the local community. These benefits include increased opportunities for public access to, understanding of and knowledge about the Quarantine Station site, both now and in the future. In particular, the proposal will enable a broader section of the community to become aware of, and access the site. The determining authorities are satisfied that potential impacts on the local community can be appropriately managed, and that there will also be direct benefits for the community as a result of the proposal.

#### € **Community attachment to and experience of the Quarantine Station**

It is apparent from the submissions that the community, particularly at the local level, has a strong attachment to the site and highly values the amenity that it offers. In considering whether and how the amenity of the Quarantine Station

might be changed for the community, it is useful to take account of the following:

- § some of the qualities offered by the site, such as views of the harbour, its living history and historic atmosphere, will be generally unchanged or potentially enhanced by the proposal. The way in which visitors experience “living history” will change, however, as the site becomes more actively managed as a commercial venture;
- § some of the experiences currently associated with the place do not necessarily reflect the sites’ historic use or atmosphere, when the place was presumably busy, noisy and operating as a small community. However, increased levels of visitation at the site will undoubtedly change people’s contemporary experiences and perceptions of the site. It is difficult to assess the extent to which experiences of isolation and solitude, also a documented part of the site’s significance, can be retained due to the subjectivity of such experiences; and
- § there was a lack of distinction in some submissions between the Quarantine Station, and North Head more broadly. It is noted that other areas at North Head, including areas within Sydney Harbour National Park, will remain available to the community for the many of the experiences described, such as isolation, serenity, peace and “getting away from it”.

On this basis, it is clear that while the community’s experience of the site will change, the proposal will not necessarily detract from many of the qualities of the site and surrounding landscapes that are valued by the community. The determining authorities consider that on-going monitoring and an adaptive management approach to responding to impacts will be essential to ensuring that these values are retained.

#### € **Equity of access for all sections of the community**

The determining authorities consider that, in general, the proposal will improve public access to the site. However, strong community concern has been expressed regarding access, with an emphasis on the increased entry fees to the site. Particular concern was raised with respect to the issue of costs of accessing the site by school groups. There is a perception that many people will be unable to afford to visit the site, and thus it will become an ‘elite’ destination. This was intertwined with the issue of private sector involvement and the perception that it will restrict and minimise the current access rights enjoyed by the public. On this latter issue, it is important to note that access to the Quarantine Station is currently limited to guided tours or conference participants only, so that the ability of the community to readily access and experience the site is already constrained.

In considering the question of entry fees, the determining authorities have examined the current costs of entry to the site and similar natural and historic venues (both publicly and privately run). These include: the Sydney Aquarium; Taronga Zoo; Port Arthur; Old Melbourne Gaol; Sovereign Hill; Liberty / Ellis Island (US Quarantine Station); and the Grosse Ile / Irish Memorial National Historic Site (Quarantine Station, Canada). A brief comparison of costs, and different tours or options offered, is provided in Appendix 8. The determining authorities are satisfied that the proposed entry



fees are generally within the range of fee's charged for similar cultural tourism attractions, taking into account the services offered as part of the entry fee and the size and nature of the attraction.

As noted in Table 8, the determining authorities strongly support the notion that pricing arrangements for the site should promote equitable access. Providing opportunities for equitable access would be a reflection of the historical socio-economic patterns of occupation and use, whereby different class and race groups were interned and subject to varied living conditions and experiences of the Quarantine Station.

However, the determining authorities are also cognisant of the challenges of establishing a viable operation at the site that is sufficiently patronised to achieve improved access and interpretation outcomes and to generate sufficient funds for on-going conservation. In addition, the determining authorities are mindful of the principle of competitive neutrality (NSW Treasury, 2002) and the implications that any artificially reduced prices may have on other accommodation and tourist operations in Manly LGA.

The conditions of approval seek to balance these overlapping objectives. Key conditions include:

- € 101(a) – which seeks to ensure that free access visitors to the Wharf Precinct can gain an understanding of the history and significance of the site without the need to participate in a paid tour;
- € 136 – which provides for school groups to access the site without the need to stay overnight, in response to concerns about the fees for overnight school group packages;
- € 122 – which requires services and facilities to be made available at varying price-scales; and
- € 123 – which requires concessional pricing for tours and interpretive activities at the site.

The determining authorities are satisfied that the proposal makes adequate provision for people with non-English speaking backgrounds to participate in site tours and activities. With regard to access for visitors with physical disabilities, the determining authorities consider that this should be addressed on a precinct basis and meet the requirements of the *Disability Discrimination Act* [condition 118(h)]. Further, condition 154 requires that identified parking for disabled visitors be provided in the proposed car parks.

Taking into account the conclusions of the EIS and PAS, public submissions, the independent review and the provisions of the QSCMP, DACMP and other statutory documents, and subject to the recommended conditions, the determining authorities are satisfied on balance that the proposal will not have an adverse economic or social impact on the welfare or well-being of the community. On-going community involvement in relation to the proposal and the management of the site is addressed in Section 5 of this report.

**Table 12 - Commission of Inquiry outcomes – socio-economic impacts**

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<u>Cost-benefit analysis</u> € NPWS must consider whether a fresh appraisal of the costs/benefits should be undertaken. € this should include consideration of the costs to NPWS of overseeing, management and monitoring the activity as recommended by the Commission.	51  55	7		The determining authorities do not consider that it is necessary to replicate the work undertaken as part of the cost/benefit analysis provided in the EIS. That analysis, and the assessment provided to the determining authorities by Gillespie Economics, has provided sufficient information to inform the determining authorities' decision-making in this regard.  The determining authorities do agree, however, that it would be appropriate for the co-proponents to undertake further consideration of the likely financial costs of undertaking the activity as part of the final leasing process, especially in light of amendments that have been made to the proposal and the conditions of approval issued by the Heritage Council and Minister for Infrastructure, Planning and Natural Resources (which are also adopted by the determining authorities in this report). As noted in 4.12.6, it is understood that this work has been undertaken, together with an independent assessment of the financial capacity of Mawland Hotel Management and the financial projections.  The determining authorities do not, therefore, consider it necessary to include a condition regarding this matter.	No specific condition warranted	
<u>Access</u> € the Commission is satisfied there will be greatly improved public access, having regard to proposed uses. The provision of increased visitor numbers and improved tour facilities will provide improved opportunities for the public to gain a greater appreciation of the significance and national importance of the site. € the Commission considers that reasonable public access is ensured, given the co-proponents' commitment to maintaining current level of charges for each tour. € to assist increased public access, charges for educational facilities should be formalised in the lease agreement.	46  46			The determining authorities generally agree with the conclusions of the Commission. Pricing issues are also discussed in Section 4.12.6 and Table 8.  The determining authorities agree that pricing for educational facilities should be formalised. Pricing issues are discussed further in Section 4.12.6 and Table 8.	Refer 4.12.6 & Table 8  Refer 4.2.16 & Table 8	
<u>Social value</u> € the social value would be improved by the sustainable conservation of the site enabling enhanced visibility, accessibility and interpretation of the Quarantine Station. Also the adaptive reuse and conservation of the site places an economic value on it, and better achieves one of the principles of ESD, namely improved valuation and pricing of	51			The determining authorities generally agree with the conclusions of the Commission. Issues regarding the application of ESD principles to the assessment of the proposal are further discussed in Section 4.14 of this report.	No condition warranted.	

ISSUES (as per COI report)		SOURCE				DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
	environmental resources.						
<u>Other</u>	the co-proponents should provide a cash bond or bank guarantee to the NSW Heritage Council to guarantee the satisfactory performance and completion of works			15.3.5	Refer Table 5		No condition warranted.

## **4.13 Cumulative impacts and integrated planning**

### **4.13.1 Context**

As noted in Section 4.4, there are a number of planning levels that apply to the Quarantine Station site. For the purposes of considering cumulative impacts associated with the proposal, and the scope for achieving an integrated approach to land-use planning in the area, the following broad levels can be defined:

- € whole of harbour and whole of national park;
- € local government area;
- € North Head;
- € the site itself;
- € precincts within the site; and
- € individual buildings and features, including the landscape and individual flora and fauna components.

At the site level, all elements of the Quarantine Station are considered significant and are essential to an understanding of the place (NPWS 2001b, p.74). This is reinforced by DACMP Policy CARP 3.1, which states that “only uses that satisfy all of the constraints relating to Aboriginal, natural and European heritage aspects of the site are to proceed”. The DACMP and QSCMP provide the basic tool for determining the cumulative effects of actions within the site.

The QSCMP (NPWS 2000b, p.235) also acknowledges the significance of the Quarantine Station as an integral element of North Head. It highlights the need to achieve a “cohesive and unified planning, conservation and management approach to North Head as a place” so that significance is retained and enhanced for North Head as a whole. The QSCMP (p.237) goes on to note that coordinated planning for the former Artillery School site and the Quarantine Station should be undertaken to ensure the best “cultural” outcomes for both sites. However, it is also stated that the “continued lack of resolution of the future of the School of Artillery cannot preclude...the Quarantine Station conservation processes presently being undertaken”. The need to avoid delays to actions that conserve that site is further noted in the Commissioner’s report.

With respect to the School of Artillery site, the determining authorities note that a final Plan for all the Sydney Harbour Trust lands has recently been adopted by the Commonwealth Minister for Environment and Heritage (Sydney Harbour Federation Trust, 2003b). The content of the Plan is discussed briefly in Appendix 7. It is noted that the issues confronting the future management and use of the site are similar to those at the Quarantine Station.

It is also noted that the Plan highlights options for the adaptive re-use of the School of Artillery and focuses on the concept of creating a “sanctuary” at North Head. This would involve sustainable management by all land managers working to achieve common objectives. The sanctuary concept is

discussed further below. The Plan indicates that the Harbour Trust has undertaken to prepare a site specific management plan for 13 areas, including North Head, by April 2004.

The draft North Head Planning Strategy (Clouston 1996) provides an early attempt to produce a comprehensive and integrated planning framework for North Head. The draft Strategy notes that North Head is undergoing considerable land-use change, but that such change is occurring in the absence of a strategic overview of implications. Based on an evaluation of key issues and values the draft Strategy proposes a number of planning objectives for the area. These include:

- € the continuing multiple use of North Head by land owners, the community and visitors, integrating operational requirements with the primary goals of conservation, public enjoyment and appreciation;
- € ensure the continued viability of North Head as a place of employment, in harmony with its values;
- € coordinate land use practices to conserve, enhance and promote the cultural heritage values;
- € manage biodiversity in a coordinated systems based manner;
- € optimise opportunities for equitable public access while mitigating the impacts of vehicles;
- € balance the interest of local users and visitors in developing the area to international standard facilities; and
- € protect the values of North Head for future generations using a strategic plan and a coordinated approach to management.

The draft Plan also proposes a vision for North Head. The vision acknowledges that conservation or sensitive adaptation of the area's values will be the primary considerations in all management practices, especially those associated with the evolution of, and changes in, land uses. It further notes that the appreciation of North Head by the local community and increasing numbers of visitors will be a means of bringing closer relations between users.

A more recent integrated planning initiative is provided by the on-going development of the North Head sanctuary proposal. As noted above, this is discussed in the final Plan that has been adopted for the Sydney Harbour Federation Trust lands. The investigation of a sanctuary at North Head was also identified in "Protecting our future – Labor's plan for a healthy environment" (Australian Labor Party, NSW Branch 2003).

It is understood that the NPWS, Sydney Harbour Federation Trust and other stakeholders are currently working together to further develop a sanctuary model for North Head. A draft paper examining the sanctuary proposal has been prepared for discussion by the relevant parties (Sydney Harbour Federation Trust 2003a). Following feedback from the relevant groups it is understood that the paper will be further developed. The current draft notes that the sanctuary concept can embrace both natural and human dimensions.

Hence key outcomes of a sanctuary may include: protection of flora and fauna; use of North Head for enjoyment, recreation and renewal; and development of compatible business activities.

At a broader level again, cumulative effects of the proposal on the national park are probably best considered in the context of the Sydney Harbour National Park Plan of Management (NPWS 1998). As noted in Appendix 6, the Plan of Management provides a number of policies and actions relevant to the proposal including recently adopted provisions that would enable the adaptive re-use of the Quarantine Station to proceed.

Integration of the proposal into the whole-of-harbour context is also a key factor for consideration, given the prominence and significance of its North Head location. In this respect, documents such as the Sydney Harbour Regional Action Plan (DUAP 2000), SEPP 56 and SREP 22 and 23, provide the basic structure for assessment. Those documents share a number of common themes, with emphasis given to: increasing public access to the foreshore; the conservation of natural and cultural heritage; improving water-based public transport; and the maintenance of a working harbour.

#### **4.13.2 Proposal and likely impacts**

The land use and cumulative impacts associated with the proposal are presented in Chapter 22 of the EIS. The EIS notes the varying degrees of certainty regarding future land uses at North Head and states that, as a result of that uncertainty, there are limits to the meaningful level of cumulative impact analysis that can occur. Nevertheless, the EIS attempts to document the likely positive and negative cumulative impacts associated with the proposal and other major land uses in the area.

Potential adverse cumulative impacts of the proposal, both on and off-site, include:

- ∄ impacts associated with increased site visitation, such as deterioration of fabric, loss of sense of isolation and fauna impacts;
- ∄ increases in local traffic volumes and parking requirements, particularly given the development of St Patrick's College and uncertainties regarding the School of Artillery and other sites;
- ∄ increases in noise and light and visual impacts (eg. from the new car parks);
- ∄ implications for fire safety and emergency planning resulting from increased numbers of day and overnight visitors;
- ∄ implications for the future viability of any tourism or other commercial activities proposed for other sites at North Head; and
- ∄ impacts on the basic infrastructure requirements for North Head, especially water and sewer services.

There are also a number of potentially positive cumulative effects associated with elements of the proposal, such as:

- € the undertaking of essential conservation works on-site and within the national park, together with an on-going maintenance program;
- € the upgrading of fire safety systems;
- € increased community access and interpretation;
- € provision of water-based access;
- € promotion of local tourism and the provision of additional accommodation; and
- € employment benefits.

#### **4.13.3 Proposed mitigation measures**

The PAS proposes the following mitigative measures:

- € monitoring of land uses at North Head by the NPWS;
- € participation in the Section 22 Committee for North Head, if it is reinstated; and
- € provision of monitoring data from the site to assist other stakeholders in future cumulative impact assessments at North Head.

#### **4.13.4 Submissions**

Twenty-six submissions specifically raised the issue of cumulative impacts resulting from the proposal. Of these, 4 submissions (0.4%) concerned cumulative impacts within the Quarantine Station, 12 submissions (1.1%) related to cumulative impacts on North Head, and 10 submissions (0.9%) related to other cumulative impacts, for example on the local community. Expressions of concern about the loss of public land and Australia's cultural heritage, a feature of many submissions, can also be interpreted as concern about the cumulative impact that the proposal will have more broadly on the protection and management of the Australian landscape, at a state and national level.

The need for an integrated approach to planning for North Head was raised in 46 submissions (4.2%), while 37 submissions (3.4%) raised issues regarding the future uses of the School of Artillery.

Specific issues raised in the submissions were as follows:

- € inadequate consideration in the EIS of potential cumulative impacts on site and specifically on cultural significance and wildlife from increased noise, lights, waste generation, building alterations, visitor numbers;
- € lack of assessment of future initiatives that are proposed for the site, and cumulative impacts on flora, fauna and other site values. Damage to values will be irreversible;
- € inadequate consideration of the potential that development at the Quarantine Station may limit other opportunities;

- € cumulative impacts resulting from this and other developments on North Head, including likely re-development of School of Artillery site. Potential impacts include increased traffic impacts, increased strain on water/wastewater systems, increased visitation and impacts on natural values, including Bandicoots;
- € increasing development of North Head is leading to a loss of sense of community and natural values;
- € need to consider the Quarantine Station as part of North Head and develop an integrated plan for future development at North Head. Options include a single management system for North Head, in public ownership; and
- € need to consider opportunities for using the School of Artillery as part of the proposal.

#### **4.13.5 Commission of Inquiry findings and recommendations**

The Commission's key findings and recommendations with respect to cumulative impacts, incorporating the issue of integrated planning for North Head, are as follows:

1. the Commission, while acknowledging the merit of an integrated environmental and conservation planning approach to the whole of North Head, notes that circumstances prevent the adoption of such a planning approach at this time. Biological/ecological integrity and vehicular traffic are the two most significant environmental issues to be addressed in the present and future integrated planning of North Head. The Commission concludes that the proposal would not prejudice an integrated planning approach to the whole of North Head, providing the Commission's findings and recommendations are adopted (8);
2. contractual arrangements between Mawland and the Minister for the Environment regarding the lease and use of the Quarantine wharf must ensure its future availability for general water access to North Head [8(a)] (see Table 15); and
3. an integrated transport management plan should be prepared by Manly Council upon confirmation of the type and intensity of future use of the School of Artillery site. The co-proponents should contribute to the development of such a plan [8(b)] (see Table 8).

#### **4.13.6 Discussion and conclusion**

All proposals, regardless of their scale, contribute to the cumulative impacts of development within a given area. While individual actions may by themselves have an insignificant effect, the aggregate of such effects will compound and extenuate the overall impacts. However, identifying the cumulative effects of a proposal, or a series of proposals, is not as simple as totalling all the individual impacts. Some impacts are repetitive, continuous or experience a time-lag. Others are so small that they have no tangible overall impact. In addition, some impacts are positive while others may produce adverse results.



The determining authorities acknowledge that the assessment of cumulative impacts associated with the proposal is challenging and relatively subjective. This is made more difficult by uncertainties regarding the future of other key sites. However, some general conclusions can be reached:

- € overall, and with the inclusion of appropriate conditions of approval, the activity will be able to achieve a substantial level of compliance with the provisions of the QSCMP and DACMP that balances conservation and use objectives;
- € the co-proponents have an on-going commitment to work with the Aboriginal community to conserve the Aboriginal heritage values of the place and to promote culturally appropriate interpretation opportunities;
- € potential impacts to flora, fauna and the marine environment have been reduced through revisions to the proposal (such as the deletion of car-parks) and the application of an adaptive management regime will provide additional long-term safeguards;
- € access can be increased gradually, so that impacts on the site and surrounding areas can be discerned and addressed if necessary. Opportunities also exist to further explore access arrangements to North Head with other land managers and Manly Council;
- € similarly, opportunities to investigate with other land managers the potential tourism and commercial opportunities that promote the values of North Head are not prejudiced by the activity;
- € the proposal is not inconsistent with the emerging concept of a North Head “sanctuary” and may provide an on-going impetus for development of an appropriate sanctuary model that focuses the efforts of disparate land managers on common management objectives and desired outcomes; and
- € the project management framework for the proposal, which includes mechanisms for community participation and integrated monitoring, may (if successfully implemented) potentially provide a model for future land management at North Head (see Section 5).

The precautionary principle also provides some guidance in the assessment of cumulative impacts. This is particularly with respect to options for the integrated planning of North Head, a recurrent theme in many of the public submissions on the proposal. The determining authorities consider that there is a clear need to retain and promote opportunities for the site to contribute to integrated land-use and conservation outcomes for the whole of North Head (whether that be as part of a “sanctuary” proposal or some other arrangement). As suggested above, the undertaking of the activity on the site, and the expected increases in visitation and awareness of the site and its surroundings, may provide an on-going catalyst for such broader outcomes to be achieved.

The determining authorities acknowledge that the sanctuary concept is a relatively recent proposal, is continuing to evolve and develop and remains the subject of continuing discussions between a range of interest groups and land managers. Clearly, the concept has the potential to provide significant new opportunities to achieve an integrated approach to the management of North

Head. Based on the information currently available, it is the view of the determining authorities that the current proposal for the Quarantine Station site does not prejudice the further development, or eventual implementation, of a sanctuary proposal.

The site has a long history of change and evolution in response to both natural and human influences. Further change is also acceptable and the DACMP clearly notes that it is “not necessary for effective interpretation to ‘freeze’ the place and prohibit any new uses” (NPWS 2001b, p.171). This view is shared by the Commission, which is not persuaded that the site should be conserved as a “museum” [Recommendation 10(a)]. Yet clearly, any adaptive re-use must only proceed if the overall significance of the place can be retained (CARP 1.2).

On the whole, the determining authorities are satisfied that the cumulative impacts of the proposal do not outweigh the potential benefits. Nevertheless, the determining authorities consider that appropriate conditions should be placed on the activity to ensure that it does not preclude an integrated approach to planning for North Head, and indeed is able to make a positive contribution towards this goal (conditions 28-30).

#### **4.14 Justification & Ecologically Sustainable Development**

##### **4.14.1 Context**

For the Quarantine Station site, the over-riding test of whether any proposal is justified is whether it is compatible with the retention and interpretation of the significance of the place (NPWS 2000b). The determining authorities have carefully considered whether the proposal, as a whole, is justified. The assessment undertaken above informs that decision, but is not the only relevant consideration.

There are therefore a number of additional tests that must be applied to determine whether the proposal has been adequately justified. These include:

- ∉ directions specified in the Director-General’s requirements issued for the EIS and SIS;
- ∉ a consideration of feasible alternatives, including the “do-nothing” option; and
- ∉ the application of ESD principles.

#### **4.14.2 Proposal and likely impacts**

The co-proponents present a number of justifications for the project. Chapter 24 of the EIS provides a summary of the overall justification for the proposal, based on a range of reasons and drawing on a number of different parts of the document. The main justifications are:

- € the demonstrated economic need for the proposal and the conclusions of the assessment of feasible alternatives;
- € the funding the proposal would provide for natural and cultural heritage conservation;
- € consistency with the Sydney Harbour National Park Plan of Management, the QSCMP and the DACMP;
- € consistency with the principles of ESD;
- € improvements to public access and interpretation of the site;
- € the provision of economic, social and environmental benefits that outweigh adverse impacts; and
- € fulfilment of the project objectives.

#### **4.14.3 Proposed mitigation measures**

Measures to protect the significance of the site are proposed at various parts of the EIS and PAS and are considered in detail elsewhere in this report.

#### **4.14.4 Submissions**

Twenty-eight (2.6%) submissions were specifically made with respect to overall project justification, while ninety-six (8.8%) were made regarding alternatives. In many cases, the submissions focused on the justification for leasing the site to the private sector and financial viability with respect to leasing, rather than more specifically the justification for the adaptive reuse proposal presented in the EIS. Many submissions clearly saw these issues as inextricably linked.

A large volume of submissions also raised issues that are relevant to an assessment of particular aspects of the project justification (eg. 231 representations on public access).

The strong opposition to the proposal (838 submissions, or 76.4% of submissions) and the decision to lease (429 submissions, or 39.1%) indicates that many of those who provided submissions consider that the benefits of the proposal do not outweigh the costs and adverse impacts. This was also noted by the Commission (recommendation 5). In this sense, the clear view presented in the public submissions is that there is inadequate justification for the proposal.

The key points raised in the submissions were:

- € private sector involvement and control (eg. a lease) of a national park on the basis of economic needs is unjustified. The Government should reconsider its spending priorities;
- € inadequate financial justification and lack of adequate information to independently assess the cost/benefit analysis and financial viability;
- € limited economic returns to NPWS;
- € assessment of justification appears driven by financial benefits alone and other factors are not adequately considered;
- € lack of consistency with the Plan of Management, QSCMP and DACMP, and likelihood that the proposal will significantly impact on the cultural significance of the site;
- € lack of consistency with ESD principles: the proposal is unsustainable; lack of community input; unacceptable impacts on biodiversity; loss of site for present and future generations; lack of equity in access for general public to a national park due to high entry fees; and restrictions on access to site components; and
- € lack of adequate consideration of alternate funding and management options, such as: a private trust; community involvement; an integrated planning approach to North Head that includes School of Artillery site; transfer of the site to the Historic Houses Trust or National Trust; shorter leases; and more adequate Government funding.

#### **4.14.5 Commission of Inquiry findings and recommendations**

Key findings of the Commission with respect to project justification, alternatives and ESD are as follows:

1. private sector lease involvement enables, in terms of public access and public interest, an immediate economic and environmentally sustainable approach to conservation of the Quarantine Station. It provides for a major capital investment, which will prevent further deterioration of the site and establish a basis for the restoration, conservation and maintenance of the Station for future generations. Benefits will include enhanced visibility, accessibility, understanding and interpretation of the heritage, historic, cultural and environmental values of the Station (4); and
2. subject to the adoption of the Commission's findings and recommendations, including the 21 year planning approval period, there are no "environmental aspects" that preclude involvement of the private sector in the leasing, management and operations of the Station [6(a)].

Other findings and recommendations of the Commission are detailed in Table 13.

#### **4.14.6 Discussion and conclusion**

##### **(a) EIS and SIS requirements**

The determining authorities consider that, on the whole, the assessment documentation prepared by the co-proponents is adequate and sufficient to demonstrate compliance with the requirements issued for the EIS and SIS. In forming this conclusion, the determining authorities note that the generally accepted standard of compliance is not one of perfection, but a demonstration of suitable rigour, comprehensiveness and objectivity.

On this basis the determining authorities are satisfied that sufficient assessment has been undertaken to allow an informed decision regarding the proposal to be made.

##### **(b) Alternatives**

Chapter 4 of the EIS presents a series of alternative development and use options for the site and considers each of these in relation to specified criteria, including their performance in achieving conservation of cultural significance, improved public access and interpretation, and economic feasibility.

The alternatives presented are:

- € the “do nothing” option;
- € the proposal described in the EIS;
- € the upgrading of existing shared bathrooms for accommodation guests, rather than the inclusion of en-suites in certain buildings;
- € construction of a new building on-site to provide accommodation, with no water access provided; and
- € off-site accommodation (eg. at the adjoining North Head Defence Area), with no water access.

The EIS also provided a number of alternatives to dealing with specific elements of the proposal. For example, whether the proposed stairway should be constructed over the former Funicular route or adjacent to it.

In the conclusion to Chapter 4, the EIS presents a summary of each alternative and a subjective score-based evaluation of performance against the stated feasibility criteria. The proposal described in the EIS is noted as obtaining the best overall performance against the criteria, however the EIS also notes that some of the other alternatives performed well in key areas such as retention of fabric.

The final proposal described in the PAS has not been the subject of a similar comparison. However, it is noted that the final activity for which approval is being sought includes some important revisions with respect to heritage protection. For example, two car parks have been deleted and the number of rooms to be retained without adaptation has expanded, including the retention of the whole of P1 and P2 in their current form.

Overall, the presentation of alternative development options in the EIS is considered a logical and reasonable discussion of their relative merits and disadvantages. The options presented are also within the scope of what could be considered feasible for the site, given the constraints that exist and the provisions of the DACMP and QSCMP. In this regard, it is noted that the conservation management plans establish a clear requirement to expand the accessibility of the place to the community to enable enhanced interpretation to occur. The continuing use of the place for accommodation purposes is also highlighted as a legitimate and necessary function.

The determining authorities also consider that the presentation of alternative options, such as construction of a new building for accommodation or off-site alternatives, adds a degree of robustness to the consideration of alternatives. These options are framed with reference to the QSCMP provisions regarding the construction of new buildings and the need to integrate planning for the Quarantine Station within the context of the whole of North Head.

#### (c) ESD

The application of ESD principles to the proposal is discussed specifically in Chapter 6 and also briefly referred to in Chapter 24 of the EIS.

In determining the acceptability of a proposal in relation to ESD principles, there are four basic areas to consider (DUAP 1995). These are considered briefly in Table 14, but underpin the more detailed review of the potential impacts of the proposal which is presented above and the overall conclusions and recommendations regarding the proposal in Section 6. The determining authorities note and concur with the Commission's view that there remains considerable debate surrounding the practicable implementation of ESD principles at the project level.

#### (d) Conclusion

On the basis of the above, and after considering the various points presented in the EIS and the views expressed in the public submissions, the determining authorities have concluded that the co-proponents have provided a sufficient examination of the justification of the proposal. The determining authorities also consider that there has been a satisfactory level of compliance with the requirements issued for the EIS and SIS and the provisions of the *EP&A Act* with respect to addressing the justification for the project, including consideration of the principles of ESD.

**Table 13 - Commission of Inquiry outcomes – justification**

ISSUES (as per Col report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ the Commission is satisfied that the proposal as amended with conditions of approval will provide 'equitable access for the general public to a National Park'.	54			The determining authorities generally agree with the Commission.	No specific condition warranted – conditions regarding access are discussed in Section 4.4	
€ the Commission does not accept the view that the requirement regarding 'alternate uses for the site' involves consideration of alternative management options beyond options available within the co-proponents proposal.	54			Refer to Section 4.14.6	No specific condition warranted	
€ the Commission is of the view that the head lease approach is the appropriate management option, and the lease arrangement can be viewed as a public/private sector partnership rather than 'selling of the land'.	55			The determining authorities note that the leasing process is not presented by the co-proponents as a key element of the project justification. The recent management history of the Quarantine Station and decision by NPWS to lease the site to the private sector is discussed in Chapter 3 of the EIS. This includes a discussion of the condition of the site, and the substantial resourcing required to conserve the place and improve its public presentation and interpretation.  The purpose of the EIS is to consider the merits of the adaptive re-use proposal (which would be carried out under the proposed lease). However, the reasons behind the decision to lease (eg. lack of resources), have led to the current shortfalls in managing the site; and in turn to one of the perceived benefits of the current proposal, being conservation works and improved interpretive opportunities. The discussion on leasing options presented in the EIS thus is an essential precursor to any overall consideration of the justification of the project.  Given this context, the determining authorities consider that there are no environmental reasons that would prevent the leasing of the site, and the involvement of the private sector, from proceeding.	No specific condition warranted	
With respect to the ESD heads of consideration, the Commission found that:  € reasonable regard had been had to the precautionary principle;  € the evidence does not indicate serious or irreversible environmental damage is likely to occur given recommended approval conditions;  € the proposed "activity" will contribute to the social, heritage and economic advancement of the State and region and enable increased employment opportunities;  € the implementation of mitigative measures, environmental management plans and monitoring as associated with the activity will mitigate the risk of environmental degradation and protect the heritage and cultural significance of the Quarantine Station;  € if the proposal does not proceed the condition of the natural and built environment of the Station will continue to deteriorate;  € the adaptive reuse and conservation of the Quarantine Station places an economic value on the site and assists in achieving an ESD principle in particular improved	187			The determining authorities generally concur with the findings of the Commission.  Refer also Table 4.10	No specific condition warranted	

ISSUES (as per Col report)		SOURCE			DETERMINING AUTHORITY REVIEW		
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended determining authorities	by
£	valuation and pricing of resources; and public involvement and submissions made has enabled the Commission to receive and consider community views.						



**Table 14 - Application of ESD principles to the proposal**

ESD principle	Assessment
<b>Conservation of biodiversity and ecological integrity</b>	<p>Biodiversity conservation issues are considered at several key points in the EIS. The flora and fauna and marine environment assessment (Chapters 10 &amp; 11) and the accompanying SIS (Volume 5 of the EIS) provide the core components of the assessment as it relates to biodiversity conservation.</p> <p>Sections 4.1 to 4.13 of this report consider the potential impacts on biodiversity values in detail. The determining authorities recognise that the loss of biodiversity may be potentially irreversible and that the overarching aim therefore is always to avoid increasing the loss of or unacceptable risk to biodiversity values. In the application of this ESD principle, careful consideration also needs to be given to the precautionary principle (see below) and the instigation of measures to prevent environmental degradation and adapt to identified threats.</p> <p>The determining authorities acknowledge the significant biodiversity values of the Quarantine Station site and the high level of community interest in this area. The protection of these values has been afforded a high priority during the assessment of the proposal and is a key theme in many of the public submissions.</p>
<b>Social equity (inter and intra-generational)</b>	<p>Issues regarding social equity are addressed across a number of sections of the EIS.</p> <p>Chapter 21, for example, discusses social impacts associated with the proposal, including to the local community, nearby residents, the tourism industry and local businesses, visitors to the site and the broader Australian community. Other parts of the EIS and supporting documents deal with access to and within the site (including proposed site capacity benchmarks), interpretation and public presentation, and resourcing of conservation works. Sections of the EIS that deal with biodiversity issues are also relevant, particularly in the context of the implications for future generations that will flow from decisions made now.</p> <p>The determining authorities have considered the social equity implications of the proposal. The assessment has considered the dual objectives of ensuring that all elements of the environment are protected for the benefit of future generations and that improved well-being and welfare should be accessible to all sectors of society. The determining authorities have noted that the majority of public submissions have expressed serious reservations regarding the role of the private sector in implementing the proposal.</p>
<b>Improved valuation, pricing and incentive mechanisms</b>	<p>This ESD principle is addressed at a number of layers in the proposal. These include: the discussion of resourcing options for conservation works (Chapter 3); and the pricing mechanisms to be used to manage access to the site and interpret its values (eg. via guided tours and varied standards of accommodation).</p> <p>It is also fundamentally implicit in the proposal by the co-proponents to allocate specific resources to up-front conservation works and infrastructure upgrading, together with funding ongoing conservation works within Sydney Harbour National Park. In addition, commitments made regarding monitoring and adaptive</p>

ESD principle	Assessment
	<p>management measures to minimise risks to threatened species, are also relevant to this ESD principle.</p> <p>The determining authorities note that these elements of the proposal are consistent with the concept that those who benefit from a resource should pay for those benefits. In this case the co-proponents will bear the cost of both conservation and other works. Visitors who pay to access the site and to experience its values will also contribute. Conversely, the benefits of such expenditure and the proposal will flow to the broader community through access and interpretation opportunities and the undertaking of priority conservation works. Benefits will also accrue to the co-proponents, through profits from a successful operation and the provision of significant resources to undertake conservation activities.</p> <p>The determining authorities have noted that a number of submissions raised concerns regarding the terms of the lease, particularly the proposed length and the financial arrangements to be entered into (such as rental payments, profit-sharing, etc).</p>
<p><b>Precautionary principle</b></p>	<p>The precautionary principle provides recognition that environmental impact assessment is not a fool-proof process for predicting impacts. ESD therefore requires that uncertainty and risk levels be considered in decision-making, with the emphasis on “risk averse” approaches to development (DUAP 1995).</p> <p>Consideration of the precautionary principle applies across all elements of the current proposal. While the focus is on avoiding or minimising risks to the cultural and natural significance of the place, a risk averse approach also applies to issues ranging from impacts on surrounding residents (eg. from traffic and noise) to planning for the future of North Head as a whole. In other words, decisions taken regarding the Quarantine Station site should be consistent with protecting the significance of the place and avoid limiting future options for management of the site and the whole of North Head.</p> <p>Application of the precautionary principle underpins all elements of this report. The determining authorities acknowledge that the principle does not mean that developments with uncertain outcomes should not proceed and that a key factor is the degree of risk that is acceptable. Constraining an approval for a proposal to achieve greater certainty of risks is therefore an acceptable decision-making option (DUAP 1995).</p> <p>The determining authorities note that issues raised in many of the submissions implicitly touched on the application of the precautionary principle. A common theme was the concern regarding impacts of the significance of the place and a number of submissions expressed support for no changes to occur at the site.</p>

## 5 PROJECT MANAGEMENT ISSUES

This section of the determination report examines several key project management issues that are critical to the overall assessment of the proposal. These issues cut across the individual environmental matters identified in Section 4 of the report.

### 5.1 Context

The Quarantine Station site is acknowledged as having a multiplicity of overlapping layers of significance. This creates a unique but challenging environment for on-going management of the site.

The QSCMP and DACMP both contain policies that seek to provide a consistent framework for future management of the site. These are mirrored by relevant provisions of the Sydney Harbour National Park Plan of Management. In brief, the major areas of interest include:

- € the role of the NPWS as manager and custodian of the site;
- € mechanisms for on-going community participation;
- € the need for a comprehensive environmental management plan;
- € monitoring procedures; and
- € information management and documentation.

In addition, the community consultation process for the proposal and the Commission of Inquiry have highlighted two further matters requiring consideration: the length of any planning approval; and the system for managing detailed construction processes.

### 5.2 Proposal and likely impacts

#### (a) Role of the NPWS

The PAS acknowledges that the NPWS retains a statutory responsibility for the overall management of all activities at the site. It states that a team of officers will be appointed to ensure that the management of the site is undertaken in accordance with the proposal, the lease, the provisions of the planning approval and statutory requirements. The establishment of the team would occur in consultation with Planning NSW.

In addition, an Environmental Management Officer (EMO) would be employed to oversee all operations on the site. The EMO would have the power to “stop work” and would report to the Director-General of the NPWS every two months. The EMO would be assisted by a NPWS project officer and provided with administrative support. The staff would be located at the entrance to the site in Building S7. Further, the NPWS will provide the guides for on-site tours.

(b) Community participation

The co-proponents propose to recommend to the Minister for the Environment that an Advisory Committee be established under the *NPW Act* to provide the forum for on-going community involvement in the site. The Committee would be in addition to the existing Sydney Region Advisory Committee, but would focus solely on the Quarantine Station and the remainder of the national park at North Head.

The PAS also proposes the establishment of a Quarantine Station Agency Group, comprising the relevant NSW agencies, to review and advise on matters regarding the proposal.

(c) Environmental management plan (EMP)

The co-proponents intend to prepare an EMP following a final determination of the proposal. The EMP would comprise several components and would evolve from a construction to an operations focus as works progress. It is understood that the EMP would function as the principal operational document to guide day-to-day management of the site.

(d) Monitoring

The PAS states that a fundamental part of the above EMP will be an “integrated monitoring and adaptive management system”. The system would use a series of indicators for various elements of the site and provide the basis for triggering adaptive management measures. The proposed system is based on the “Tourism Optimisation Management Model”. A similar model is currently being applied at Kangaroo Island in South Australia ([www.tomm.info](http://www.tomm.info)).

One of the co-proponents, Mawland Hotel Management, has allocated \$60,000 per year towards the TOMM. That includes the provision of funds to the NPWS, the Metropolitan Local Aboriginal Land Council and various tertiary institutions, consultants and conservation organisations to undertake the monitoring work.

Outcomes of the monitoring would be used in the preparation of annual environmental reports and five yearly environmental audits. These would be undertaken in consultation with the relevant agencies and referred to the Advisory Committee for comment. The PAS proposes that the first environmental audit would be undertaken approximately half way through the adaptation and conservation works.

(e) Information management and documentation

Apart from the collection of information and data associated with the monitoring program, the EIS and PAS are largely silent on issues associated with the overall management of on-site information and documentation requirements. By contrast, the DACMP (AEP 3.2) requires, as a matter of urgency, the development of a customised GIS and the inclusion of specified information on the system. In addition, guidelines prepared by the NSW Heritage Office provide specific requirements for the preparation of archival records before and after the completion of works.

(f) Duration of planning approval

Based on the outcomes of the COI (see Table 15), the co-proponents have modified the proposal to seek a planning approval for twenty-one years. This would be mirrored by a twenty-one year lease, with options to extend the lease further.

The original EIS proposal did not include a proposed time-limit on the planning approval for the activity.

(g) Construction assessments and approvals

Throughout the assessment process it has been noted that any construction works approved for the site would have to undergo further detailed design and assessment. This is necessary both to address specific technical requirements and standards for construction, such as the provisions of the Building Code of Australia, but also to enable further refinement of proposals in light of the DACMP. In particular, it is noted that the DACMP includes substantial detail on the significance of the fabric of each building and structure. The assessment of impacts of the proposal on such elements is most appropriately undertaken at the detailed design stage.

On this basis, the PAS makes regular reference to the resolution of design details as part of the “certification process”. A brief outline of the desired certification process preferred by the co-proponents is provided in section 2.6.3 of the PAS.

### **5.3 Submissions**

A number of submissions raised issues in relation to the role of the NPWS with regard to the proposal. Most of these were linked to concerns with the private sector involvement in future management of the site. Some submissions were critical of either the NPWS’ ability to manage the site or to obtain an appropriate financial return for the community. Others supported the continuing involvement of the NPWS on the site, but argued that adequate resources needed to be made available for that to occur.

Issues regarding community participation were not specifically identified during the analysis of submissions. However, it is noted that the tenor of many of the submissions focused on the costs and benefits of the proposal to the community as a whole.

Five submissions identified issues associated with the EMP, while nine addressed monitoring. Key issues included:

- ⊄ the nature of the proposed monitoring and who will do it is unclear - EIS lacks details;
- ⊄ EMP needs to be finished before an approval is given;
- ⊄ EMP is not available for assessment but is an essential prerequisite to consideration of the EIS and must take account of ESD principles;
- ⊄ EMP should provide a framework for monitoring; and

€ some submissions noted that the monitoring program was a positive aspect of the proposal.

Issues regarding the management of information and subsequent construction processes were not specifically identified in the submissions received on the proposal.

The duration of the project, on the other hand, received extensive attention. In almost all cases, the concerns raised were with respect to the length of the proposed lease (45 years) and no distinction was drawn to the length of any possible planning approval. The determining authorities note in this regard that they are in fact separate, albeit related, issues. Over 400 submissions (39%) objected to the proposed lease and a large proportion of these mentioned the length of the lease specifically. The length of the project and lease is also discussed in the comments provided by Manly Council with respect to the outcomes of the COI.

#### **5.4 Commission of Inquiry findings and recommendations**

Key findings and recommendations made by the Commission with respect to the above matters, and others, are discussed in Table 15.

#### **5.5 Discussion and conclusion**

On the basis of the above, and after considering the matters addressed in Table 15, the determining authorities are satisfied that issues regarding management of the project are either adequately addressed by the co-proponents or can be dealt with through appropriate conditions. In forming this view, the determining authorities have been mindful of the complexities involved in managing the multiple values of the site and of the high priority to be given to on-going community participation. The establishment of a suitable management framework will be critical to the protection of the site and the ability of the community to access and interpret its significance.

**Table 15 - Commission of Inquiry outcomes – project management issues**

ISSUES (as per COI report)		SOURCE			DETERMINING AUTHORITY REVIEW	
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities
<b>NPWS role</b>						
€	Management and monitoring role of NPWS is inadequate and does not adequately represent its legislative responsibility as manager and guardian of SHNP.	Cover letter p.2	18		The determining authorities note the emphasis given by the Commission to ensuring that management and monitoring responsibilities remain with a neutral authority. The determining authorities concur with this view and note particularly the obligations that rest with the NPWS by virtue of the QSCMP. For example, Section 9.2 of the QSCMP requires the NPWS to manage the site in accordance with its outstanding significance and to act as a custodian to ensure that the values of the place are retained. This is specifically reinforced in policies GQP 4 and GCP 5.	Key conditions include: 19, 52, 54, 56, 78, 82-85, 91, 95, 100, 118, 162, 168-69, 172, 179, 181, 216, 225, 232-33
€	NPWS must be involved in determining and have a "hands on" role in all of the monitoring activities recommended by the Commission, including determination of acceptable no. of persons on site and associated environmental and heritage impacts. NPWS responsibilities must include movement and parking of vehicles.	44, 55			Notwithstanding this, the determining authorities consider that responsibility for ensuring appropriate management and guardianship of the site's values will require a collaborative approach, involving Government, the co-proponents and the community. This is necessary not only to ensure compliance with the principle of "neutral monitoring" but also to enable the community to scrutinise the decisions made by authorities on their behalf. Inclusion of a broader range of agencies and the community in the on-going monitoring process will also enable additional expertise to be applied to management of the site.	
€	Commission not satisfied that the effective monitoring role of the NPWS can be carried out by employment of only one NPWS site manager.	45			On this basis, the determining authorities do not entirely agree with the emphasis given by the Commission solely to the role of the NPWS.	
€	NPWS should be responsible for determining required environmental indicators. Responsibility for monitoring and determination of acceptable visitor numbers must rest with NPWS.	124	12		The determining authorities therefore consider that there is merit in ensuring that additional relevant agencies have an on-going role in overseeing the undertaking of any activities on the site. Similarly, the community should also participate in fulfilling that function. The role of the co-proponents, and their commitment to compliance with the monitoring requirements of the approval is also important.  The recommended conditions of approval make provision for this to occur in relation to numerous aspects and various stages of the activity. Examples include:  € assessment and endorsement of prototype building adaptations; € appointment of an Environmental Manager (as recommended in the Commission's conditions of approval); € appointment of a Heritage Advisor; € establishment of a community committee; € approval and regular review of the Conservation Works Program; € approval and review of various site-wide plans and monitoring programs, such as the Heritage Landscape Master Plan and Access Strategy (including visitor monitoring program); € approval and review of Long-nosed Bandicoot and Little Penguin monitoring programs and adaptive management measures; € endorsement and review of the integrated monitoring program; and € review of the annual environmental report and 5-yearly audits, with the option to recommend revisions to operations at the site.	
€	NPWS should be responsible for detailing monitoring requirements, approving mitigative measures, assessing monitoring results and requiring implementation of mitigative measures.	151, 195				
€	The co-proponents shall appoint a suitably qualified Environmental Manager, subject to the approval of PNSW. The EM should have various specified roles.			8.1 & 8.2		

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
<p>€ <u>Community consultation</u></p> <p>€ A Quarantine Station Reference Group should be established with agency and NGO representation, chaired by PNSW and meeting every ¼ for first 3 years. Council, Friends of Quarantine Station and MLALC to be included.</p>	81, 110, 192-193	11(c) & 20	11.1, 11.2 11.3, 15.2.3, 15.5.1, 15.5.2  15.8.8 15.8.9 15.7.1 15.9.4 15.9.6 15.9.8 15.9.12 15.14.3 15.14.6(b) 15.14.8 15.14.9(b) 15.14.9(d) 15.14.10 & 15.14.11 15.16.4	<p>Table 16 in the determination report provides more detail on the roles of the various agencies and the community with respect to the recommended conditions of approval. Obviously, the monitoring and reporting obligations of the co-proponents are also defined by the conditions of approval.</p> <p>The determining authorities consider the requirements and processes established by the conditions of approval will ensure a high level of independent scrutiny of the proposal, consistent with the intent of the Commission's findings and the overall role of the NPWS as principal guardian of the site.</p>		
<p>€ QSRG to have approval role for:</p> <ul style="list-style-type: none"><li>✔ conservation plan for cemeteries</li><li>✔ Aboriginal site conservation works</li><li>✔ sample adaptation of P6</li><li>✔ conversion of remaining 1st and 2nd class buildings</li><li>✔ design modifications under 15.8.1-15.8.7</li><li>✔ detailed drawings for specific elements</li><li>✔ proposals for fencing (as part of LMP)</li><li>✔ special event proposals</li><li>✔ increase in night tour numbers</li><li>✔ special interest tours</li><li>✔ education program</li><li>✔ appointment of person to monitor work areas for fauna</li><li>✔ Bandicoot monitoring plan (if required)</li><li>✔ reversal of Bandicoot adaptive management measures</li><li>✔ determination of management triggers for Bandicoot road deaths</li><li>✔ management measures to address Bandicoot road deaths as required</li><li>✔ Penguin habitat fencing</li><li>✔ revised predator plan</li><li>✔ S9 mitigative measures</li></ul>				<p>The determining authorities strongly agree that the community should be afforded opportunities to actively participate in processes related to the on-going management of the site and protection of its values. It is noted that this is also supported in the advice provided by the Minister for Planning to the determining authorities (as per s.114 of the <i>EP&amp;A Act</i>).</p> <p>The QSCMP (Sections 8.8.3 and 9.2) observes that many groups have a strong association with the Quarantine Station or an interest in its use and management. This is clearly demonstrated by the intense community interest in adaptive reuse options for the site that has remained consistent over a number of years. Many organisations and individuals have dedicated considerable effort towards advocating for the conservation of the site.</p> <p>The QSCMP indicates that future management of the place should acknowledge these interests and seek mechanisms to ensure on-going consultation and liaison with such groups. The QSCMP also considers that consultation would be most effectively organised as part of an overall Sydney Harbour National Park approach to the issue.</p> <p>The determining authorities consider that the process for on-going community participation needs to be clearly defined and focused. Community input must be both meaningful and occur in an efficient and timely manner. In this regard the determining authorities particularly note the Commission's findings regarding the urgency of conservation works and that further delays must be avoided in the interest of the site's continued well-being.</p> <p>Given this context, the determining authorities have some reservations regarding the structure and roles of the Quarantine Station Reference Group as recommended in the Commission's report. It is noted that Manly Council has also expressed some concerns regarding the consultation model proposed by the Commission. Key issues considered by the determining authorities in this regard include:</p> <p>€ <b>the limited community representation proposed.</b> Under the Commission's model only two groups, the Friends of Quarantine Station and the Metropolitan Local Aboriginal Land Council, would be represented. Given the level of public interest in the site, and its value to the broader community, it is considered that an expanded level of representation would be more appropriate. In this regard, the determining authorities consider that use of the existing NPWS Advisory Committee structures would be suitable. This would correspond with the principle of adopting an overall Sydney Harbour National Park focus for future consultation purposes and enable a greater cross-section of community input and expertise into management of the site;</p>	56-60	



ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
QSRG to have <u>consultation/review</u> role for: ▼ EMP ▼ review of Aboriginal site conservation works ▼ public open days ▼ concession pricing ▼ car parking status report ▼ annual monitoring report			15.1 15.2.4 15.9.10 15.9.13 15.11.9 15.21.3	€ <b>the combined role of the NSW government agencies, Manly Council and community representatives.</b> The determining authorities consider that there is substantial merit in establishing a group that is able to put forward independent views regarding the operation of the activity on behalf of the community. The determining authorities are concerned that the structure of the group as proposed by the Commission would not facilitate such an outcome;  € <b>the approval and consultation role proposed for the group.</b> The Commission's report specifies a broad range of matters that are proposed to be considered by the group, either in an approval or consultative capacity. The determining authorities are concerned the combination of such roles may conflict with the statutory decision-making responsibilities of the relevant agencies. The advice from the Minister for Planning under s.114 of the EP&A Act raises a similar concern.  In particular, it is noted that the Heritage Council is the responsible entity for making decisions regarding items on the State Heritage Register and already includes community representatives appointed by the Minister for Infrastructure, Planning and Natural Resources. The determining authorities consider that the functions of the group would be more appropriately focused on consultation, review and the provision of independent community-based advice. It is noted that the establishment of community groups with such functions is now generally accepted as standard practice and is commonly required as a condition of approval for major development projects; and  € <b>the significant workload proposed by the Commission, which includes both approval and consultation roles for the group.</b> The determining authorities are particularly concerned at the expectations this will create on non-government members of the Group who will be acting largely in a voluntary capacity.  Having taken the above matters into account, the determining authorities therefore consider that a more practicable model for on-going community consultation is required. It is noted that the PAS proposes the establishment of a separate Advisory Committee under the <i>NPW Act</i> . The determining authorities consider that this option, or a sub-committee under the existing Regional Advisory Committee, would be appropriate and have included recommended conditions to address this matter.  In addition, the determining authorities have also recommended conditions that detail measures to ensure appropriate expert and community input into various aspects of the proposal. These include the appointment of an independent Heritage Advisor to assess applications for construction work. They also include the establishment of contact telephone numbers, a complaints register and opportunities for public review of any proposed significant changes resulting from the audit process.	5-6, 8, 54, 172, 181, 233	
<u>Community consultation cont...</u>  € the co-proponents shall establish a free contact phone number to enable any member of the public to reach a person who can arrange appropriate response actions to any queries or complaints.  € the co-proponents shall record details of all complaints received and provide these to the Environmental Manager and QSRG.			12.1, 13.1	see above		
EMP						

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ An EMP should be prepared and implemented prior to commencement of the operation of the proposal. Plan to address various specified matters.	118, 123, 140, 178, 192	18 & 19	3.1(d) & 15.1	The determining authorities concur with the need for a comprehensive EMP to manage and guide the undertaking of the activity. This is consistent with Section 4.27 and Policies DMR 3.1 and DMR 3.2 of the DACMP.	191-195	
€ EMP to be prepared in consultation with QSRG and approved by PNSW.	46			However, the determining authorities do not agree with all of the Commission's views regarding the timing and structure of the EMP. In these regards the determining authorities consider that:		
€ Recommended monitoring actions must be included in EMP to be approved by D-G PNSW.				€ the primary function of the EMP should be to focus on the environmental safeguards and procedures to be implemented during construction and operation of the activity. The EMP could also function as an operation control document to consolidate all requirements of the various other plans, strategies and monitoring programs that are required by the conditions of approval;		
€ There should be community input into the EMP preparation and with respect to the monitoring and management system.				€ given the breadth of further planning to occur if approval is granted, and noting the acknowledged need to commence conservation works as a priority, the determining authorities consider that while an EMP should be prepared prior to commencement of physical works and general operations, it may be amended and updated in stages to include the outcomes of the other strategies, plans and programs; and		
				€ monitoring actions are considered to be more appropriately placed in the integrated monitoring program and evaluated as part of the audit process.		
				The determining authorities agree that the community should have the opportunity to review and comment on the EMP prior to endorsement by the relevant agencies. The preferred model for on-going community consultation is discussed above.		
<u>Monitoring and Audit</u>	192, 194		15.21	The determining authorities support the preparation and implementation of a comprehensive monitoring program for the activity and agree that the determination of sustainable visitor numbers will depend on a combination of monitoring outcomes. The conditions of approval include a range of monitoring requirements, including the preparation of an overall integrated monitoring program.	216-220	
€ Monitoring of visitor numbers should not be averaged but should be on the basis of "no. of people on the site at any one time".				The determining authorities also support the undertaking of annual environmental reports and five-yearly audits to ensure that the activity is proceeding in accordance with the conditions of approval and that the significance of the place is being safeguarded. However, the audit model preferred by the determining authorities has two key differences to that proposed by the Commission:		
€ Monitoring results of environmental indicators should be the primary consideration for review of visitor numbers, not simply "visitor experience".				€ the first comprehensive and independent audit should occur prior to the commencement of the Stage 3 works. This would allow a major review to occur earlier than the 5 year timeframe proposed by the Commission, recognising that much of the adaptation and urgent conservation works is planned to occur within the first few years. It is noted that Manly Council is also of the view that audits should occur more frequently; and	221-233	
€ Annual and 5 yearly audits should be undertaken by independent expert or team approved by PNSW in consultation with NPWS and HC. Reports shall address various specified matters and be submitted to QSRG.						

ISSUES (as per COI report)			SOURCE		DETERMINING AUTHORITY REVIEW	
	Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities	
€ Within 12 months an integrated monitoring program shall be implemented to address various specified matters. Monitoring results shall be submitted as part of the annual environmental reports.				€ it is considered that the annual audit may be undertaken by the co-proponents rather than an external party. This is considered acceptable given the extensive role of various agencies and the community consultation group in overseeing the activity and given the above requirement regarding the timing of the first independent audit.		
<u>Duration of approval</u>						
€ the lease period of 45 years fails to take account of changed circumstances and in particular "environmental aspects" likely to occur over such a lengthy period.	48, cover letter p.2	6	4.1 & 4.2	The determining authorities generally concur with the Commission's views regarding the necessity of undertaking a "complete environmental planning review in a lesser period than 45 years". This is consistent with the precautionary principle and the need to ensure that the values of the place are being protected over time.	13-15	
€ the planning approval should be limited to 21 years or the expiry of the lease, whichever occurs first.				The determining authorities note that the proposal to limit the planning approval to 21 years is also supported by the co-proponents and the Minister for Planning (as detailed in the advice to the determining authorities as per s.114 of the EP&A Act).		
€ a complete review of all "environmental aspects", including integrated planning for Nth Head if relevant, should occur prior to further planning approval being granted.				Conditions regarding this matter have been included.		
€ any application to extend the approval should be subject to an EIA and public exhibition process.				The determining authorities also consider that the activity will require careful scrutiny and possible adaptation in a period lesser than 21 years. For this reason, the determining authorities recommend the undertaking of annual environmental reports and five-yearly audits of the activity, together with monitoring and adaptive management measures for specific aspects of the proposal (eg. visitor numbers, Long-nosed Bandicoot road mortalities, etc).		
				The determining authorities do not consider that the approval timeframe should be linked to the term of any lease under the NPW Act. In forming this view it is noted that if a lease expires prior to 21 years the NPWS may wish to continue the activity, or elements of it, itself.		
<u>Construction works</u>						
€ all construction works shall require a construction certificate, to verify that works are completed in accordance with various standards (eg. BCA).			9.1, 9.2, 10, 14	The determining authorities support the establishment of a clear certification process for the undertaking of physical works and note that the NPWS has developed state-wide procedures to provide the necessary assessment framework. Recommended conditions are included that address this matter and issues associated with the use of suitably qualified and experienced contractors.	35-40, 61-65	
€ prior to construction the co-proponents shall submit to QSRG a schedule of works within each precinct requiring the issuing of construction and occupation certificates. The schedule shall include: sample boards and colours; sample finishes and fittings, etc.				The determining authorities consider that the details of colours, finishes, etc. are best addressed as part of a detailed application for construction works rather than as a stand-alone document.		

ISSUES (as per COI report)			SOURCE			DETERMINING AUTHORITY REVIEW		
		Page No.	Rec. #	Condition#	Comment/Response	Condition(s) recommended by determining authorities		
€ the Principal Certifying Authority shall be the NPWS whose responsibilities shall include various specified matters.					see above			
€ All work shall be carried out by suitably qualified tradespersons. All staff and contractors are to receive training on the values of the site and work procedures to follow.								
<u>Lease</u>								
€ Minister for the Environment should give consideration to possible future use of the wharf for general access to North Head prior to completing lease negotiations.	59, 173-174	8(a)			The determining authorities consider that at a practical level, access to all of North Head from Quarantine wharf is likely to be difficult, as this would presumably require the movement of people through the Quarantine Station site, with associated environmental impacts and issues of management responsibility. Further, the determining authorities consider that matters concerning the lease negotiations are generally outside the scope of matters to be considered in the Part 5 assessment process. However, in response to the Commission's concern about this matter and to ensure that such future opportunities are not precluded as a result of the current proposal, the determining authorities recommend that condition 28 be applied.	28		
€ Lease area should be extended to include 2nd cemetery	79				The PAS indicates that this option will be investigated.	No specific condition warranted.		

## 6 CONCLUSION AND RECOMMENDATIONS

### 6.1 Context

The North Head Quarantine Station is a site of outstanding national significance. That significance manifests itself in many overlapping and multiple layers of conservation value. The conservation significance of the site derives from all stages of occupation and land use, ranging from Aboriginal periods through the successive phases of expansion and contraction of European activities, to the most recent phase of management as a conservation reserve incorporating more contemporary conservation values (such as biodiversity).

This layering of significance creates a unique and complex situation for both site management and the assessment of any development proposals. This complexity is reflected in the array of issues covered in the assessment documentation prepared for the current proposal. It is also reflected in the conservation policies for the site. These policies acknowledge that proposed uses must be tested against the various layers of understanding regarding the Aboriginal, natural and European heritage of the site and should only proceed if they satisfy all of the constraints relating to these values (NPWS 2001b).

As noted in Section 4, in considering the merits of any development proposal for the site, the ultimate and over-riding test to determine whether a proposal is justified and any environmental impacts are acceptable is whether the significance of the place, and the ability to interpret that significance, will be maintained or enhanced. The QSCMP and the DACMP provide the primary source of guidance in making a decision on this test.

In addition, as discussed throughout this report, there are a large range of other strategies, policies and guidelines that are relevant to the assessment of the proposal. While many of these were not prepared specifically with the Quarantine Station in mind, they all address issues and provide guidance on matters of environmental assessment that collectively are critical to the overall decision-making process.

The assessment of the adaptive re-use proposal for the Quarantine Station has been a complex and challenging process. The impact assessment and conservation documentation is extensive and has required careful scrutiny. Many issues were raised in the public submissions and the report of the COI provided further information and detailed recommendations to be considered by the determining authorities. On the whole, the determining authorities are satisfied that there is clearly sufficient information available on which to base a decision.

In weighing the various issues relevant to the proposal the determining authorities have acknowledged the guidance provided by the principles of ESD. In particular, the application of the precautionary principle has been afforded a high priority in all aspects of the decision-making process. In this regard, the determining authorities also note the emphasis given in the Burra Charter to doing as much as possible to care for a place and make it useable, but otherwise to change a place as little as possible to retain cultural significance (Australia ICOMOS, 1999).

With these objectives in mind, the determining authorities are of the view that the application of an adaptive management system provides a robust and feasible mechanism to manage environmental risks. Obviously, such a system requires a rigorous compliance and audit system to ensure performance, especially with respect to the biodiversity conservation, social equity and valuation principles of ESD.

## 6.2 Determining authorities' decision

After considering this report and all associated documentation regarding the proposal, the determining authorities have concluded that the activity is generally consistent with the primary objectives of protecting the significance of the place and achieving improved access and interpretive opportunities.

The determining authorities note that the Commission of Inquiry found that, subject to adoption of the findings and recommendations contained in its report, there were no "environmental aspects" that would preclude granting planning approval to the form of "activity" recommended by the Commission. The determining authorities agree that there are no environmental matters that would prevent the activity proceeding. However, the determining authorities do not concur with all of the findings and recommendations arising from the Commission. The views of the determining authorities in this regard are detailed extensively in Sections 4 and 5 of this report.

On this basis, and in accordance with s.112 of the *EP&A Act*, the determining authorities jointly agree that **the activity should be approved subject to conditions**. It should be noted that the conditions address all aspects of the proposal, including those of specific relevance to the section 60 application under the *Heritage Act*. The conditions also incorporate the requirements of the concurrences and approvals already granted by the Heritage Council, Minister for Fisheries, Minister for the Environment and Minister for Infrastructure, Planning and Natural Resources.

The primary reasons for the conditions are to:

- € further mitigate the potential environmental impacts of the activity;
- € ensure that adequate safeguards are in place to provide for long-term protection of the significance of the site;
- € ensure that appropriate and meaningful opportunities exist for on-going community participation in decisions that affect the site;
- € enable adaptive management of the activity to occur consistent with the practical intent of the precautionary principle;
- € ensure that there is a high level of oversight and scrutiny of the activity by the community and relevant NSW Government agencies, recognising the collective responsibility for stewardship of the site;
- € respond to specific issues and concerns raised during the consultation process, the Commission of Inquiry and in the advice provided by the Minister for Planning in accordance with s.114 of the *EP&A Act*;

- € ensure an adequate level of compliance with the key provisions of the QSCMP and DACMP that balances the conservation and use objectives for the site; and
- € ensure that the undertaking of the activity does not preclude the future development of an integrated approach to the planning and management of North Head.

### **6.3 Recommended conditions of approval**

The recommended conditions of approval are attached in Schedules 1 to 9 of this report. The conditions are extensive and cover all aspects of the proposal. While most relate to specific issues, some are more detailed and all-encompassing of the various elements of the activity. The determining authorities consider that the imposition of the conditions is essential to achieve a balance between protecting the significance of the place, increasing accessibility and interpretation opportunities, and establishing a viable operation.

The conditions incorporate flexibility and provide for the adaptive management of the place. In this regard the determining authorities have clearly acknowledged that the activity is not without risks, but are of the view that those risks have been minimised and reduced to an acceptable level during the refinement of the proposal by the co-proponents and are capable of being further addressed through the conditions of approval.

The conditions place a clear obligation on the co-proponents to adapt the implementation of the activity over time in response to emerging information and the outcomes of the monitoring program. This is essential in a fragile and outstanding site such as the Quarantine Station and represents the practical application of the precautionary principle and concept of adaptive management. It also means that the community will have on-going role in reviewing key aspects of the proposal as it adapts over time. This in-built mechanism respects the community's strong attachment to the place.

It is noted that the EIS and PAS contain information on procedures and mitigation strategies to be implemented to ameliorate impacts of the proposal. The recommended conditions should therefore be implemented in conjunction with those procedures and mitigation strategies specified in the EIS and PAS. Where there is an inconsistency, the conditions of approval will prevail.

The general framework for the conditions is illustrated in Figure 1. In brief, the key elements include:

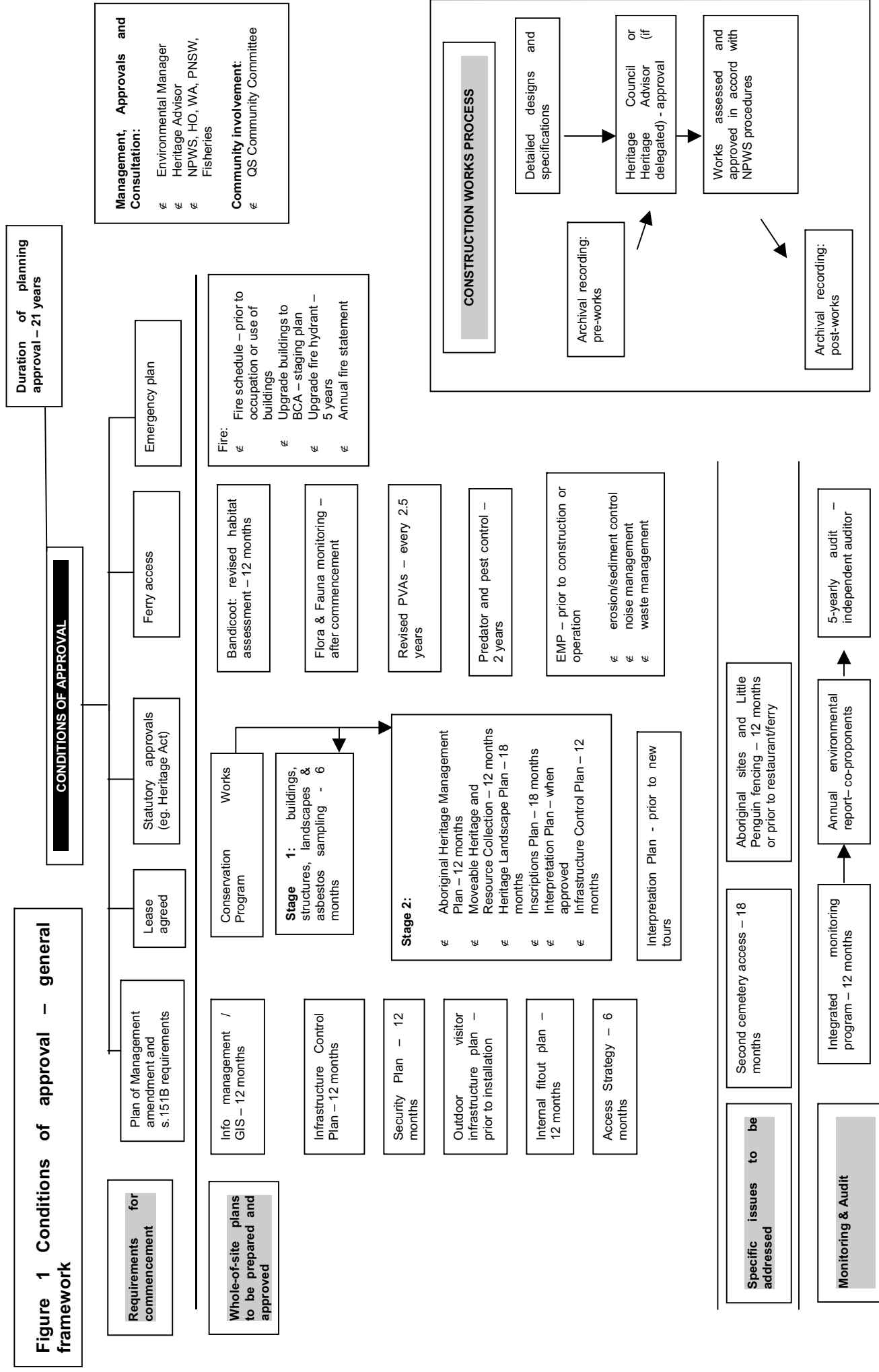
- € requirements to be met before the activity may commence;
- € details of elements of the activity that are not approved or are approved subject to further detailed design;
- € establishment of a process for the assessment and certification of physical works;
- € appointment of an Environmental Manager and Heritage Advisor;
- € establishment of a community committee;

- € development and implementation of various site-wide plans;
- € specified access arrangements to the site; and
- € monitoring, auditing and adaptive management requirements.

It should be noted that while there appear to be a large number of conditions, this is a fairly typical approval outcome for a project involving considerable capital investment and for a site with such an array of overlapping environmental issues. It should also be noted that a significant proportion of the conditions should be completed within the first 5 years of the activity. This includes the conditions regarding commencement of the activity and preparation of all the site-wide plans. After the first 5 years, much of the focus of the conditions of planning approval will be on reviewing and updating the site-wide plans as needed, monitoring and auditing performance, and applying the adaptive management regime (Figure 2).

The roles of the various NSW Government agencies and the Quarantine Station Community Committee in relation to the conditions of planning approval are detailed in Table 16. As shown in that table, there are extensive on-going roles for both government and the community in overseeing the undertaking of the activity. This reflects the view of the determining authorities that the guardianship of the site's values is a collective responsibility, requiring the involvement of many individuals and organisations.





**Figure 2 – Conditions of approval – general timeframes**

Pre “commencement date”	Prior to works or operations commencing	At completion of works	Within 1-3 months of commencement date	Within 6 months of commencement date	Within 12 months of commencement date	Every year
9(a) PoM amended 9(b) Lease 9(c) Other approvals 9(d) Ferry service arrangements 9(e) Emergency plan – link to 205	16. Water & sewer works – s.73 certificate 19. Sample accommodation adaptation 35. Construction works approval: links to review by Heritage Advisor (55) and Heritage Council approval (40) 39. Notice to Environmental Manager of work approvals 40. Heritage Council approval 42. Application for construction of waterside structures: prior to wharf works or ferry commencing 44. Operating certificate 45. Archival recording for adaptation works 52 & 54. Appointment of Env. Manager / Heritage Advisor 63. List of heritage specialists 65. Staff training (within 1 week – 1 month) 99A. Excavation permit 100. Interpretation Plan – prior to new activities or tours 112. Outdoor visitor infrastructure plan (prior to installation occurring): links to Heritage Landscape Master Plan (91) and Interpretation Plan (100) 113. Sample of outdoor and emergency lighting (prior to lighting works commencing): links to 112. 174. Little Penguin fencing: prior to restaurant opening or commencement of ferry – links to 9(d), 42 & 138(a) 185. First seagrass monitoring: prior to ferry commencement – links to 9(d), 42 & 138(a) 191. EMP – links to 197, 199 & 203 209 & 210. Fire safety schedule and safety measures	45. Archival record of adaptation works Schedule 5. Monitoring of reconstructed Bandicoot habitat	<b>1 month:</b> Schedule 5. Monitoring of Bandicoot foraging habitat Bandicoot road mortalities <b>3 months:</b> 56. Quarantine Station Community Committee 144. 15 km/h speed limit on-site	78. Stage 1 of Conservation Works Program: links to AC sampling strategy (111). Stage 2 – as soon as practicable 106(c). Road design standards – link to 145-46 & 148 118. Access Strategy 138. Ferry service commence 145. Traffic calming devices – link to 106(c) 148. Vehicle barriers – link to 106(c) 155. Shuttle bus service 163. Bandicoot signage: links to 106(c), 145-46 & 148. 183. Mooring discussions	<b>12 months:</b> 66-67. Information Management System 70. Aboriginal heritage plan 85. Moveable Heritage and Resources Plan 99. Building fit-out plan 105. Infrastructure control plan 116. Security Plan. 165. Revised Bandicoot habitat assessment 216. Integrated monitoring program 223. First annual environmental report – unless 228 applies	82. Review of Conservation Works Program – links to 228. 126. Two free community days 160. Regular inspection of Coral trees at Wharf. 170. Recalculate background road mortality level for Bandicoots 175. Beach signage for Penguins (breeding season). 184. Seagrass monitoring – links to 216-17, & 219 211(c). Annual fire safety statement 219. Monitoring report – links to 221 & 226 221. Annual environmental report

**Figure 2 – Conditions of approval – general timeframes cont...**

Within 18 months of commencement date	Within 2 years of commencement date	Every 2.5 years of commencement date	Within 3 years of commencement date	Within or every 5 years after commencement date	Every 5 years after first comprehensive audit (approx. years 6-7, 11-12 16-17 & 20-21 after commencement)	7.5 years after commencement	10 years after commencement
<p>82. First review of Conservation Works Program (approx) – links to 228 below.</p> <p>91. Heritage Landscape Management Plan</p> <p>95. Inscriptions Management Plan</p> <p>124. Access arrangements for 2<sup>nd</sup> cemetery (within 6 months of tours commencing) – links to 91</p> <p>220. First review of integrated monitoring program (approx) – links to 228.</p> <p>228. First comprehensive audit (approx).</p>	<p>151. Interim bus parking to be phased out on completion of CP1 (approx)</p> <p>188. Predator and Pest Control Plan</p>	<p>171. Bandicoot PVA</p> <p>180. Penguin PVA</p> <p>- also occurs in same year as five year reviews of plans</p>	<p>121. Initial site capacity limits.</p> <p>129. Initial limit on night tours.</p> <p>139. Ferry modal targets for 3 years</p> <p>211. Buildings brought up to BCA fire standards (approx) – links to 31.</p>	<p><b>Review of:</b></p> <p>69. Information Management System</p> <p>72. Aboriginal heritage plan</p> <p>89. Moveable Heritage and Resources Plan</p> <p>94. Heritage Landscape Management Plan</p> <p>96. Inscriptions Management Plan</p> <p>103. Interpretation Plan</p> <p>117. Security Plan</p> <p>119. Access Strategy</p> <p>190. Predator and Pest Control Plan</p> <p>208. Emergency and evacuation plan</p> <p>- links to 171 and 180.</p> <p><b>Achieve:</b></p> <p>139. Ferry modal targets</p> <p>143. Vehicle modal targets</p> <p>211. Upgrade of fire hydrant</p>	<p>220. Review of integrated monitoring program – links to 228.</p> <p>228. Comprehensive audit</p>	<p>171. Bandicoot PVA</p> <p>180. Penguin PVA</p> <p>- also occurs in same year as five year reviews of plans</p> <p>151(c). 50% reduction in use of reception car-park</p>	<p><b>Review of:</b></p> <p>69. Information Management System</p> <p>72. Aboriginal heritage plan</p> <p>89. Moveable Heritage and Resources Plan</p> <p>94. Heritage Landscape Management Plan</p> <p>96. Inscriptions Management Plan</p> <p>103. Interpretation Plan</p> <p>117. Security Plan</p> <p>119. Access Strategy</p> <p>190. Predator and Pest Control Plan</p> <p>208. Emergency and evacuation plan</p> <p>- links to 171 and 180</p> <p><b>Achieve:</b></p> <p>148. Replacement of vehicle barriers – link to 153(c)</p> <p>151(c). Use of reception car-park phased out</p>

**Table 16 - Summary of post-consent roles for NSW Government agencies and other bodies**

#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC			Waterways Authority			DIPNR			NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Other	Consult	Endorse	Other	Consult	Endorse	Other	Consult	Endorse	Consult	Endorse
4	Dispute resolution																		Min Env <sup>27</sup> & Min IPNR <sup>28</sup>	
11	Commencement date (including use of wharf facilities under 9d)																			
16	Section 73 Compliance Certificate																			
19	Sample adaptation of Building P6																		Sydney Water	
22, 23	Reconstruction Buildings P21, P23 and H1																			
32, 34	Staging of works – commencement of stages																		Min Env & Min IPNR	
35-39	Certification of construction works																			
42, Sch.4	Certification of works to wharf																			
44	Operating Certificate																			
45	Archival recording																			
50-51	Undertake emergency works																			
52	Appointment of Environmental Manager																			
54	Appointment of Heritage Advisor																			

<sup>27</sup> Minister for the Environment

<sup>28</sup> Minister for Infrastructure, Planning and Natural Resources

#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC		Waterways Authority		DIPNR		NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse
57	Appointment of Chairperson for QS Community Committee (QSCC)																
63	List of qualified specialists / contractors																
66	Information management system																
69	Review of information management system																
70, 72	Aboriginal heritage management plan and review															QSCC Aboriginal community	
74	Identification of relevant Aboriginal stakeholders																
75	Public access to Aboriginal sites																Aboriginal community
76	Installation of fence near Building A14-17 to protect Aboriginal sites															Aboriginal community	
78	Final Conservation Works Program (CWP)															QSCC	
82-84	CWP review and revise plan																
85	Moveable Heritage and Resources Plan															QSCC	
89	MHRP - review and endorsement																
91	Heritage Landscape Master Plan (HLMP)															QSCC	
94	HLMP - review and endorsement																
95	Inscriptions Management Plan (IMP)															QSCC	
96	IMP – review and endorsement																
97	Interim arrangements for managing access to inscriptions																

#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC		Waterways Authority		DIPNR		NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse
99	Internal building fitout plan															QSCC	
99A	Excavation permit																
100	Interpretation Plan															QSCC	
103	IP – review and endorsement																
105	Infrastructure Control Plan															QSCC Relevant agencies	
108	Investigative techniques that have an environmental impact																Relevant agencies
109	ICP review and endorsement																
111	Asbestos sampling strategy															QSCC	
112	Outdoor visitor infrastructure plan															QSCC	
113	Lighting sample																
116	Security plan															QSCC NSW Police	
117	Security plan review															NSW Police	
118	Access Strategy															QSCC Manly Council STA	
119	Access Strategy – review															QSCC	

<sup>29</sup> the DEC has delegated authority in certain circumstances to issue excavation permits. Where that delegation is not able to be exercised responsibility for issuing the permit will sit with the Heritage Council.

#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC		Waterways Authority		DIPNR		NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse
																Manly Council STA	
121	Proposals to increase site capacity																
124	Access to Second Cemetery																
127	Special events and open day proposals															Manly Council OSCC	
129	Visitor numbers for night tours																
134	Special interest tours																
140(e)	Wharf access																
141	Variations to wharf use																
155(c)	Shuttle bus trips																
157	Measures to respond to adverse impacts from visitor monitoring program																
160	Limited lopping and trimming of vegetation																
161	Design / location of artificial nest sites/boxes																
162	Methods for meeting monitoring requirements for bandicoots and penguins																
165	Mapping of potential bandicoot foraging habitat and areas for reconstruction/rehabilitation																
168	Adaptive measures for impacts on foraging habitat																
169, Sch.6	Adaptive measures for road mortalities																Relevant

#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC		Waterways Authority		DIPNR		NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse
																	authorities
169A	Bandicoot mortality signage																
172	PVA results and options for modification of approval																Min Env & Min IPNR
174	Fencing for penguins																
179, Sch.8	Adaptive measures for penguins																
181	PVA results and options for modification of approval																Min Env & Min IPNR
183	Restrictions on boat mooring															Other stakeholders	
184	Monitoring program for seagrass beds																
186 & 187	Adaptive management for seagrasses																
188, 190	Predator and pest control plan and review															QSCC	
189	Predator control activities prior to approval of plan																
191, 195	EMP and review															QSCC	
196	Contamination assessment																
201-202	Measures to reduce / alter noise levels																
205, 208	Emergency and evacuation plan and review															QSCC NSW Police NSW Ambulance Service NSW Fire	



#	Condition	Environmental Manager		Heritage Advisor (if delegated)		Heritage Office/Council		DEC		Waterways Authority		DIPNR		NSW Fisheries		Other (specify)	
		Review	Endorse	Review	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse	Consult	Endorse
209	Fire Safety schedule															Brigade	
210	Fire Safety Certificate																
211(c)	Annual fire safety statement																
216	Integrated monitoring program															QSCC	
220	Review of IMP															QSCC	
221	Annual environmental report															QSCC	
226	Comprehensive audit															QSCC	
232-33	Matters to be addressed arising from independent audit															QSCC	Minister for IPNR (revisions)
Sch.3	Aspects of proposal approved subject to modification or detailed design																

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**SCHEDULES 1 TO 9:**

# **CONDITIONS OF PLANNING APPROVAL**

## **GENERAL**

### **Documents to be complied with**

- 1) The activity shall be generally carried out in accordance with the Environmental Impact Statement (EIS) "Proposal for the Conservation and Adaptive Re-use, North Head Quarantine Station, Sydney Harbour National Park", Volumes 1-5, dated 7 September 2001, except where modified by:
  - a) the proposal, including plans, safeguards and mitigation measures, presented in the Preferred Activity Statement (PAS) prepared by the co-proponents dated September 2002;
  - b) preliminary details for the proposed adaptation of Building A6 provided by the co-proponents in a facsimile dated 14 October 2002 and in the paper dated 31 October 2002;
  - c) the variations proposed to the PAS by the co-proponents in a letter dated 12 November 2002; and
  - d) the conditions of this approval (which incorporate the conditions of concurrence and approval granted by the NSW Heritage Council, Minister for Fisheries, Minister for the Environment and the Minister for Infrastructure, Planning and Natural Resources).
- 2) In the event of any inconsistency with the EIS and PAS, the conditions of approval specified in this schedule and schedules 2 to 9 shall prevail.

### **Compliance with conditions**

- 3) It shall be the ultimate responsibility of the co-proponents to ensure compliance with the conditions of this approval and to ensure compliance by staff and contractors. The conditions do not relieve the co-proponents of the obligation to obtain all other approvals from relevant authorities required under any other legislation.

### **Dispute resolution**

- 4) In the case of a dispute between the co-proponents and any public authority, company or person in the implementation of the conditions of approval, the matter shall be referred to the Department of Environment and Conservation (DEC) in the first instance. If the DEC is unable to resolve the dispute and/or is of the view that further consideration is justified the matter will be referred to the Department of Infrastructure, Planning and



Natural Resources (DIPNR). If the matter is still unable to be resolved it shall then be referred to the Minister for the Environment and the Minister for Infrastructure, Planning and Natural Resources for final resolution.

### **Public information**

- 5) All final reports, reviews, plans and monitoring data referred to in the conditions of approval are to be publicly available, with the exception of material that is commercially sensitive or contains sensitive information regarding Aboriginal heritage or the location of threatened species and/or their habitat.

### **Contact**

- 6) Prior to the commencement date, the co-proponents shall establish and publicise a contact telephone number, which would enable any member of the general public to reach a person who can arrange appropriate response actions to any queries or complaints received.
- 7) The co-proponents shall provide to DIPNR, DEC, NSW Waterways Authority and the Heritage Office the name and a 24 hour contact telephone number of at least one person who will have authority to enter any work areas, to take immediate action to stop works or any activity or take other action as necessary. The appointment of this person does not preclude any public authority from entering the site for the purposes of meeting or enforcing their statutory responsibilities.

### **Complaints register**

- 8) The co-proponents shall record details of all complaints received, and actions taken and response times. The Complaints Register shall be made available to: the Environmental Manager at the end of each week; the auditor for the purposes of the comprehensive audit (condition 226); and at other times as requested by relevant NSW Government agencies.

<b>COMMENCEMENT</b>
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### **Commencement of activity**

- 9) The activity is not to commence until:
  - a) the Plan of Management for Sydney Harbour National Park, prepared under the *National Parks and Wildlife Act 1974*, has been amended to include provisions enabling the adaptive re-use of the Quarantine Station and until other relevant requirements of section 151B of the Act have been met;

- b) a relevant lease agreement under the provisions of the National Parks and Wildlife (*NPW*) Act 1974 has been entered into, although the Minister for the Environment, as a co-proponent, shall be at liberty to undertake part or all of the activity prior to the finalisation of a lease;
  - c) the co-proponents have obtained any necessary approvals from relevant authorities required under any other legislation, including the Heritage Act 1977;
  - d) the co-proponents provide documentary evidence to the satisfaction of DIPNR that arrangements have been entered into with relevant agencies and/or private firms for a ferry (the Jenner or a similar vessel) to use wharf facilities at Manly; and
  - e) an emergency and evacuation plan has been prepared for the site by the co-proponents and approved by the DEC (condition 205).
- 10) Notwithstanding condition 9), the co-proponents may undertake the following activities prior to the commencement date:
- a) commence relevant monitoring programs;
  - b) finalise the various strategies, plans and management systems specified in the EIS, PAS or conditions of approval; and
  - c) operate the existing Quarantine Station facilities up to the current level of usage providing this is undertaken in accordance with condition 24), and subject to conditions 9)e) and 210) being met. This is also subject to any relevant approvals being obtained under the NPW Act.
- 11) For the purpose of the conditions of approval the “commencement date” is taken to be the date that DIPNR declares that all of the requirements of condition 9) have been met and that the activity may commence.
- 12) The conditions of this approval shall be incorporated into the lease agreement under the *NPW Act* for the site.

<b>DURATION OF PLANNING APPROVAL</b>
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- 13) This approval is valid for a period of 21 years. Any proposal to extend the approval beyond this period shall comply with the relevant legislative requirements that exist at the time the extension is sought.

- 14) An extension to the duration of the planning approval may only be sought if there is a current endorsed conservation management plan for the site.
- 15) In addition to any specific legislative requirements that may exist at the time an extension to the approval is sought, the application shall be made available for public comment and address:
- ∄ the provisions of any relevant endorsed conservation management plans;
  - ∄ compliance with the terms of this activity approval and any approved modifications;
  - ∄ the outcomes of all monitoring undertaken since commencement of the activity, including the success of any adaptive management measures applied; and
  - ∄ the status of any integrated planning undertaken for North Head, including the role of the site in any such process.

This condition shall not fetter the exercise of any statutory power or discretion of any authority with respect to any proposed extension of the duration of planning approval.

## **SCOPE OF APPROVAL**

### **Other infrastructure approvals**

- 16) With the exception of minor maintenance repairs or works (as defined) or works in accordance with condition 38) c), prior to undertaking any works associated with the provision of water and sewer services to the site the co-proponents shall consult Sydney Water and obtain a Section 73 Certificate under the *Sydney Water Act 1994*.

### **Aspects of the activity not approved**

- 17) Aspects of the activity that are not approved as part of this application are listed in Schedule 2.

### **Aspects of the activity approved subject to modification or detailed design**

- 18) Aspects of the proposal that are approved, subject to modifications or further detailed design, are listed in Schedule 3. The outcomes and objectives to be achieved, and the criteria for assessment of the achievement of the outcome or objective, are also detailed in Schedule 3.

## **Adaptation of accommodation facilities**

- 19) Prior to the commencement of any works associated with the conversion of rooms in any of the accommodation buildings, a sample adaptation within Building P6 must be completed and endorsed by the Heritage Council and DEC. The sample adaptation is to include accommodation room fitout and furnishings.
- 20) With the exception of buildings P1 and P2, which are to remain with their current spatial layout and internal configuration, adaptation of buildings within the First and Second Class Precincts may occur in accordance with the specifications in Table B-2 of the PAS. Adaptation works are to be assessed and approved in accordance with conditions 35)-40), and reflecting the outcomes of the P6 prototype adaptation.
- 21) Buildings P1, P2 and the original rooms that are not adapted are to remain intact and essentially unaltered, and are to be available for accommodation and/or interpretation purposes for the life of the approval. Permissible alterations include those works that are identified in the staging plan (condition 31) or condition 38).

## **Reconstructions**

### **Buildings P21 & P23**

- 22) The proposed reconstruction of P21 and P23 and use for environmental and cultural study purposes is approved, subject to:
  - a) all existing buildings associated with the Environmental and Cultural Study Centre being made operational first;
  - b) information demonstrating a clear need for the reconstruction based on the management requirements for the ongoing operation of the site (including demonstrated market demand for additional student accommodation) being provided to the satisfaction of the Heritage Council and DEC;
  - c) final plans for reconstruction being submitted to and approved by the Heritage Council in accordance with the requirements of the Heritage Act 1977. These plans must incorporate distinctions in design between the two buildings; and
  - d) compliance with the certification requirements of the NPWS Construction Assessment and Approvals Procedure.

### **Buildings H1 and P22**

- 23) Reconstruction and use of buildings H1 and P22 is approved, subject to:

- a) final plans for reconstruction being submitted to and approved by the Heritage Council in accordance with the requirements of the *Heritage Act 1977*;
- b) compliance with the certification requirements of the NPWS Construction Assessment and Approvals Procedure; and
- c) if, after reconstruction commences or is completed, further alterations to the buildings are proposed, these shall require assessment and approvals under the relevant legislation.

### **Restrictions on use**

- 24) Use of the site and the undertaking of the activity must proceed in accordance with uses permissible under the *NPW Act 1974* (as amended).
- 25) Buildings in the Third Class/Asiatic Precinct shall be used only for accommodation, interpretation and education purposes as specified in the PAS. Building P27 may also be used for special events, functions and/or conferences but only as a secondary use to education and interpretation.
- 26) Regular public tours of the site must form a component of the operation of the Quarantine Station and be run during publicly accessible periods, including weekends and public holidays.
- 27) Timber buildings shall not be used for the storage of fuel or other flammable materials.

<b>INTEGRATED PLANNING</b>
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- 28) The co-proponents shall contribute to any future initiatives focused on the development of an integrated planning approach for North Head, or components thereof, such as transport, infrastructure and utilities, accommodation and/or visitor access. Opportunities for providing general water access to North Head via Quarantine wharf shall be considered in developing such an approach, with a focus on the potential impacts of such access on the values of the Quarantine Station and implications for visitor management.<sup>30</sup>
- 29) In order to minimise the requirement for on-site parking, the co-proponents shall undertake consultations with other land managers at North Head regarding options for off-site car parking. The outcome of these discussions shall be reported on

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<sup>30</sup> incorporates a Heritage Council condition of approval, as granted under the Heritage Act 1977.

an annual basis as part of the annual environmental report (Condition 221).

- 30) The co-proponents shall undertake discussions with the Sydney Harbour Federation Trust or future land manager regarding a co-operative and integrated approach to the future management and interpretation of the 3rd Cemetery.

## **STAGING, CERTIFICATION AND UNDERTAKING OF WORKS**

### **Staging of works**

- 31) The undertaking of works as part of the activity shall generally occur in accordance with the staging plan specified in Table F-1 of the PAS, subject to the following modifications:
- a) references to the “DACMP” shall be deleted and replaced with “Conservation Works Program (condition 78)”;
  - b) references to “QSARG” shall be deleted;
  - c) 50%<sup>31</sup> of the Conservation Works Program medium term works shall be completed by the end of stage 2;
  - d) upgrade of the fire hydrant system shall be completed within 5 years of the commencement date in accordance with condition 211);
  - e) revisions to building and conservation works as follows:
    - ∄ adaptation of P12 shall occur in Stage 2
    - ∄ adaptation of P10 shall occur in Stage 3
    - ∄ an approach to sampling and adaptation of the bathrooms in P14-16 shall be prepared during Stage 1 (refer Schedule 3); and
  - f) amend the staging plan so that two free public open days are to be held in every twelve-month period, in accordance with condition 126).
- 32) The co-proponents shall not commence works associated with Stage 2 of the staging plan until the works and project planning actions specified in Stage 1 have been substantially completed to the satisfaction of the DEC and the Heritage Council.

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<sup>31</sup> based on 50% of the number of medium term work items listed in the Conservation Works Program.

- 33) The co-proponents shall not commence works associated with Stage 3 of the staging plan until the first comprehensive audit has been completed (condition 228) and any requirements or directions issued by the DEC, DIPNR or the Minister for Infrastructure, Planning and Natural Resources under conditions 232) and 233) have been complied with.
- 34) The co-proponents shall not commence works associated with Stage 4 of the staging plan until the DEC and the Heritage Council are satisfied that a significant proportion of the remaining Conservation Works Program (condition 78)) medium term works have been completed during Stage 3. Compliance with this condition shall be determined as follows:
- a) if Stage 4 is not scheduled to commence within 3 years of the commencement date, then 100% of all medium term works must be completed before Stage 4 works may proceed; or
  - b) if Stage 4 is scheduled to commence within 3 years of the commencement date, then at least 75%<sup>32</sup> of the total medium term works must be completed before Stage 4 works may proceed.

#### **General works**

- 35) The co-proponents shall comply with the requirements of the NPWS Construction Assessment and Approvals Procedure for all relevant construction works to be carried out under this approval, except where varied by the conditions of this approval.

All relevant construction works includes:

- a) all works that require the disturbance or alteration of fabric, buildings and other structures;
  - b) installation or upgrading of utility infrastructure and any maintenance or upgrade work that requires the excavation of new lines or locations or involves the discharge of polluting substances (as defined); and
  - c) landscape works in accordance with the adopted Heritage Landscape Management Plan that require ground surface disturbance, or the installation of new landscape elements including car park construction and road works.
- 36) Any application for construction work within the Quarantine Station site must be submitted to the Heritage Advisor for review

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<sup>32</sup> based on 75% of the number of medium term work items listed in the Conservation Works Program.

prior to lodgment with the DEC and Heritage Council. This requirement can be waived at the discretion of the Heritage Advisor, except for those works specified in the conditions of approval as requiring approval from the Heritage Council.

- 37) The co-proponents must submit as part of any application for construction works the following additional information (where it is relevant to the particular proposal) to that required under the NPWS Construction Assessment and Approvals Procedure:
- a) a statement of compliance with the relevant policies of the QSCMP, DACMP, relevant site-wide plans and/or requirements of the conditions of this approval, or clear justification for any proposed variances;
  - b) details of all materials, fittings, fixtures and other specifications;
  - c) details of proposed construction techniques;
  - d) sample boards and coloured elevations showing proposed materials and colours, based on research into historic colour schemes as required;
  - e) a schedule of fabric and other materials to be sampled consistent with the fabric sampling guidelines [condition 86) d)] and sampling provisions for asbestos and rainwater systems (condition 111) and bathroom fixtures [condition 99) b)];
  - f) for carparks:
    - ⊄ details of the stormwater management system based on the guideline “Managing Urban Stormwater – Soils and Construction” (DoH 1998)
    - ⊄ an assessment of the soil and hydrological characteristics downslope of the proposed carparks
    - ⊄ the proposed maintenance program for structures associated with the carpark (eg: stormwater cells;
  - g) a historical archaeological assessment to comply with the requirements of the North Head Quarantine Station Archaeological Management Plan (2000);
  - h) an outline of environmental and/or heritage impacts and proposed mitigative measures or safeguards, including procedures for avoiding impacts on flora and fauna; and
  - i) proposed monitoring and maintenance procedures, where relevant.



- 38) Notwithstanding the above, approvals in accordance with the NPWS Construction Assessment and Approvals Procedure are not required for the following matters, where these are undertaken in accordance with the provisions of the Conservation Works Program or relevant site-wide plan(s):
- a) painting and carpeting;
  - b) basic essential services, such as upgrading of electrical wiring, installation of power points, telephone connections, etc;
  - c) infrastructure works which involve the essential repair or replacement of existing facilities in the same location using “like-for-like” technology, or where this is not available, appropriate contemporary technology;
  - d) the provision of external lighting, signage and waste receptacles; and
  - e) minor maintenance repairs or works (as defined).
- 39) Prior to works commencing, the co-proponents shall notify the Environmental Manager and provide evidence that the necessary approvals have been obtained in accordance with the NPWS Construction Assessment and Approvals Procedure.

#### **NSW Heritage Council approvals**

- 40) Prior to any construction works commencing, the co-proponents shall submit the detailed design and working drawings for the project to the NSW Heritage Council for approval.

#### **Wharf**

- 41) If necessary, a separate application and approval under Part 5 of the *EP&A Act 1979* and other relevant legislation will be required for:
- a) upgrade works to the wharf, including any works that require excavation or disturbance of the seabed. This excludes use by the proposed ferry service, lighting, works identified in the PAS and minor maintenance repairs or works (as defined) that do not impact on the seabed and; and/or
  - b) provision of additional ferry services or watercraft access to the Quarantine Station.
- 42) Prior to commencement of any work on or associated with the Quarantine Station wharf, or the commencement of the ferry service at the wharf, the co-proponents shall lodge an Application for Construction of Waterside Structures to the

Waterways Authority for approval. This application must be submitted to the Heritage Advisor for endorsement prior to lodgment with the Waterways Authority.

The application shall be accompanied by the information<sup>33</sup> and comply with the requirements specified in Schedule 4.

Prior to determining the application, the Waterways Authority shall consult with NSW Fisheries<sup>34</sup>.

### **Access to Store Beach**

- 43) A separate application and approval under Part 5 of the *EP&A Act 1979*, and other relevant legislation, will be required for the provision of independent access to Store Beach, or any works associated with the upgrading of the existing access track or construction of any new tracks to Store Beach.

### **Operating Certificate**

- 44) The co-proponents shall apply to the DEC for an Operating Certificate (as defined), prior to the commencement of operation of the following facilities:
- a) therapeutic health facility (P5);
  - b) educational facilities;
  - c) restaurant, food service and beverage facilities;
  - d) accommodation facilities; and
  - e) the ferry service.

### **Archival Recording**

- 45) Archival recording shall be carried out at two stages:
- a) **prior to any adaptation work commencing on a building, historic item (including infrastructure) or cultural landscape element** - the archival recording shall be submitted to and endorsed by the Heritage Advisor prior to

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<sup>33</sup> the Waterways Authority reserves the right to require further details, verifying calculations etc, following submission and examination of the information outlined in Schedule 4.

<sup>34</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

works commencing. This shall form part of the application for construction works where applicable; and

- b) **on completion of adaptation works** - the archival recording shall be submitted to the Heritage Advisor for endorsement. This shall form part of the application for a Compliance Certificate in accordance with the NPWS Construction Assessment and Approvals Procedure where applicable.

Archival recording will also be required during the removal of any fabric on site that exposes significant fabric/detail.

- 46) The form of archival recording required is:
  - a) **archival record prior to commencement of adaptation works** - the archival record shall meet the minimum standards for recording outlined in the Archaeological Management Plan. It shall include measured drawings of all buildings and structures and photographic recording; and
  - b) **archival record for completed adaptation works** - the archival record shall comprise “as-built” drawings of all buildings and structures that have been the subject of adaptation works indicating the location and detail of changes.
- 47) Measured drawings shall be prepared in accordance with the NSW Heritage Office guidelines ‘How to prepare archival records of heritage items’.
- 48) Photographic records shall be prepared in accordance with the NSW Heritage Office ‘Guidelines for photographic recording of heritage sites, buildings, structures and movable items’.
- 49) A copy of the archival record shall be lodged with DEC and the NSW Heritage Office.

### **Emergency Works**

- 50) Notwithstanding any other conditions of this approval, in the event that emergency works are required to be undertaken, the co-proponents shall take all reasonable steps to ensure that these occur as expeditiously as possible. Emergency works are works of a temporary and reversible nature which are urgently required to arrest an imminent threat to life, safety, public liability, and/or threat to the fabric or property.
- 51) Where the co-proponents consider it is necessary to undertake emergency works, notification shall be given to the Heritage Council and the NPWS as soon as possible and direction sought on further procedures to be implemented.

## ENVIRONMENTAL MANAGER

52) Prior to the commencement of construction works the co-proponents shall appoint a suitably qualified Environmental Manager (EM). The appointment of the EM shall be subject to the approval of the DEC and DIPNR. The co-proponents shall provide to the DEC and DIPNR the following information:

- a) the qualifications and experience of the EM;
- b) the roles and responsibilities of the EM; and
- c) the authority and independence of the EM.

An EM shall be engaged for the duration of the approval.

53) The EM shall:

- a) undertake the specific actions identified in the conditions of approval;
- b) oversee the undertaking of the activity in accordance with the conditions of approval;
- c) contribute to the development, and oversee the implementation of, the EMP and the associated integrated monitoring and adaptive management system as it relates to environmental management;
- d) facilitate an environmental management module as part of an induction and training program for all persons involved with the construction works;
- e) for the first five years from the commencement date, provide six monthly (or as required) status reports to the DEC which shall include, but not be limited to:
  - € progress in implementation of approval conditions as these relate to environmental management (this shall include monitoring programs)
  - € complaints and responses to these
  - € any breaches of conditions and response
  - € compliance or other issues arising;
- f) have the authority to stop work immediately if, in the view of the EM, an unacceptable impact is likely to occur as a result of the undertaking of the activity, or to require other reasonable steps to be taken to avoid or minimise any adverse impacts;

- g) be available during construction activities at the site and be present on-site during any critical construction activities as defined in the EMP; and
- h) immediately advise the co-proponents, DEC, DIPNR, the Heritage Council and/or the Waterways Authority (depending on the issue involved) of any major issues resulting from the undertaking of the activity that have not been dealt with expediently or adequately by the co-proponents.

<b>HERITAGE ADVISOR</b>
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- 54) Prior to the intended commencement of construction works the co-proponents shall appoint a suitably qualified Heritage Advisor. The appointment of the Heritage Advisor shall be subject to the approval of the DEC and the Heritage Council. The co-proponents shall provide to the DEC and the Heritage Council the following information prior to any appointment being made:

- a) the qualifications and experience of the Heritage Advisor;
- b) the roles and responsibilities of the Heritage Advisor;
- c) the authority and independence of the Heritage Advisor.

The appointment of the Heritage Advisor shall be for a period agreed to by the Heritage Council and DEC. The Heritage Council and the DEC shall review the functioning of the Heritage Advisor upon receipt of the six monthly status reports [condition 55) d)].

- 55) The Heritage Advisor shall:

- a) assess applications for construction works with respect to heritage matters and provide advice to the NSW Heritage Council (condition 40) and DEC. This shall include, but not be limited to, ensuring that all plans and specifications submitted with applications for construction works are prepared in accordance with:

- ⊄ the conditions of approval
  - ⊄ the requirements of any relevant site-wide plans and Precinct Plans
  - ⊄ the QSCMP and DACMP, where applicable.

The Heritage Advisor shall also have responsibility for approving such applications, if the NSW Heritage Council delegates this function.

- b) review all site-wide plans prior to lodgment with the relevant approval body to ensure that these are generally in accordance with the QSCMP and DACMP;
- c) undertake regular inspections of works in progress and, where appropriate or as specified by the DACMP, either directly supervise works or require the co-proponents to appoint a suitably qualified person to supervise works;
- d) for the first three years from the commencement date, provide status reports to the Heritage Council and DEC every six months or as required which shall include, but not be limited to:
  - ⌘ applications for construction works approved and works undertaken to date
  - ⌘ the next 3-6 months schedule of works
  - ⌘ compliance or other issues arising; and
- e) have the authority to stop work immediately if, in the view of the Heritage Adviser, an unacceptable impact is likely to occur, or to require other reasonable steps to be taken to avoid or minimise any adverse impacts with respect to those matters for which a construction application is required or where maintenance work is being conducted.

## COMMUNITY CONSULTATION

### **Quarantine Station Community Committee**

- 56) Within three months from the commencement date the co-proponents shall establish a Quarantine Station Community Committee (QSCC). The QSCC may be established as a sub-committee of the NPWS Sydney Region Advisory Committee or as a full Advisory Committee under the *NPW Act*, or some other suitable arrangement approved by the DEC. The QSCC shall report to the DEC.
- 57) The QSCC shall be chaired by an independent chairperson approved by the DEC and DIPNR and comprise representatives with relevant expertise and experience from appropriate community interest groups, Aboriginal communities and local government. Representatives from relevant government agencies or other individuals may be invited to attend meetings by the Chairperson.
- 58) The general functions of the QSCC shall include:

- a) provide comment and recommendations to the co-proponents on proposals or relevant matters including the development and implementation of site-wide plans (as defined), the integrated monitoring program, annual environmental reports, comprehensive audit reports and compliance with the conditions of this approval; and
- b) provide a communication channel between the community, the co-proponents and the determining and approval authorities on matters relating to the Quarantine Station.

The conditions of approval also include other specific functions of the QSCC.

- 59) The QSCC shall meet at least quarterly during the first 3 years from the commencement date and thereafter on an as needs basis, as determined by the Committee. The Committee shall function for the duration of this approval. Minutes are to be taken for each Committee meeting.
- 60) The co-proponents shall:
  - a) provide the Committee with regular information on the environmental performance and management of the activity;
  - b) provide all relevant plans, including site-wide plans (as defined), to the Committee for comment prior to their approval by the relevant authority;
  - c) ensure the Committee has reasonable access to the necessary plans and reports and is provided with sufficient time to carry out its functions;
  - d) consider the recommendations and comments of the Committee and provide a response to the Committee;
  - e) provide the Committee with access to sufficient resources to perform its functions, including: a meeting space; photocopying, phone and fax facilities; computer/printer and supervised access to the site;
  - f) make any resolutions or decisions arising from Committee meetings available for public inspection within fourteen days of the Committee endorsing the written record of any such resolutions or decisions, or as otherwise agreed by the Committee; and
  - g) shall, depending on the frequency of meetings and workload of the Committee, consider reimbursing community representatives for reasonable expenses associated with their work on the Committee.

## CONTRACTORS

### Environmental Management System

- 61) Contractors engaged in the undertaking of the activity must be able to demonstrate a commitment to environmental management. Demonstration should be by way of commitment to a recognised Environmental Management System in accordance with NSW Government guidelines<sup>35</sup> and/or a proven satisfactory environmental management performance record.

### Appropriately skilled contractors and consultants

- 62) All works, including those works identified in the DACMP as requiring specialist expertise, shall be carried out by:
- a) **for construction works** - licensed, suitably qualified and, where appropriate, specialised tradespersons; and
  - b) **for planning and assessment works** - suitably qualified and specialised staff, consultants and/or contractors.
- 63) Prior to the commencement of works the co-proponents shall submit a list of appropriately qualified and/or experienced heritage specialists (particularly architects, landscape planners and builders) to the Heritage Council and DEC for approval. The list shall include at least 3 specialists in each relevant field where possible. All specialists contracted to work on-site shall be those identified as a preferred contractor, unless otherwise approved by the Heritage Council and DEC.
- 64) The co-proponents shall ensure that all contractors, sub-contractors and consultants working on the site are aware of the relevant conditions of approval for the activity and have been provided with sufficient training and awareness regarding the conservation values of the site.

### Training for contractors and staff working on heritage site

- 65) a) An induction and training program shall be developed by a suitably qualified person and provided to the following persons within 1 week of those persons commencing duties/works:
- € all contractors and sub-contractors, who will be required to attend such a program through the provision of a clause in all contracts for on-site works; and

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<sup>35</sup> at the time of approval, the relevant document was 'Environmental Management Systems – Guidelines' (Construction Policy Steering Committee, 1998).



- € all staff employed on the site, including but not limited to shuttle bus driver(s) and ferry crew, whether on a permanent, temporary, contract or casual basis. Staff working on the site for a period longer than 12 months must undertake a refresher program every year.

The program shall include, but not be limited to, an environmental management module outlining the natural and cultural heritage significance of the site and procedures to be followed while working on site.<sup>36</sup>; and

- b) an education and awareness program shall be developed and provided by a suitably qualified person for companies providing services such as, but not limited to, coach and bus access, service delivery and other regular vehicle access to the site within one month of them accessing the site.<sup>37</sup>

## **INFORMATION MANAGEMENT AND DOCUMENTATION**

### **Information Management System**

- 66) The co-proponents shall develop and implement a computer-based information management and Geographic Information System (GIS) for the site. The requirements of the *State Records Act 1998* and other relevant legislation, standards and guidelines shall be taken into account in developing the system.
- 67) An outline of the system is to be submitted to the DEC for approval within 12 months of the commencement date. Implementation of the system must commence within 3 months of the date its approval.
- 68) The primary role of the system shall be to document decision-making by providing a record of all works and management actions taken, and provide current information on resources and assets at the site. The system must be regularly updated and record and reference a range of information, including but not limited to the following:
  - a) all approvals issued for works;
  - b) all works undertaken, including renovation, construction and regular maintenance works (date, what work, location etc);

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<sup>36</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the Environmental Planning and Assessment (EP&A) Act 1979

<sup>37</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

- c) monitoring programs implemented;
- d) references to building plans, files, maps, design specifications and other documents;
- e) Conservation Works Program schedules, including a list of works (including regular maintenance works), priorities and when works are to be conducted (month/year);
- f) Moveable Heritage and Resources Plan (condition 85); and
- g) GIS data layers:
  - ∄ location of lease boundary
  - ∄ locations of standing buildings, inscriptions, former fence lines and barriers, cultural landscape features and other historic structures, works and paths
  - ∄ archaeological information as per the requirements of the North Head Quarantine Station Archaeological Management Plan
  - ∄ locations of Aboriginal archaeological sites
  - ∄ locations of threatened flora species, Eastern Suburbs Banksia Scrub, and high-use foraging habitat for the Long-nosed Bandicoot<sup>38</sup>
  - ∄ areas subject to bushfire hazard reduction and/or wildfires, including fire history
  - ∄ bush regeneration areas, including a history of works
  - ∄ locations of all existing and new site services and infrastructure
  - ∄ locations of all new works (including carparks, reconstructions, signs, lights, fences, paths)
  - ∄ data from monitoring programs, as relevant (eg. Long-nosed Bandicoot and penguin mortalities).<sup>39</sup>

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<sup>38</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>39</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

- 69) The co-proponents shall undertake a review of the information management and GIS system every five years after the commencement date for the duration of the activity. The review shall focus on the effectiveness of the system for managing data, and currency of information contained within the system, and be submitted to the DEC. The co-proponents shall comply with all reasonable requirements of the DEC with respect to the outcomes of the review.

## **ABORIGINAL HERITAGE**

- 70) The co-proponents shall prepare and implement an Aboriginal heritage management plan for the Quarantine Station in partnership with the relevant Aboriginal community group/s. The plan shall be submitted to the Heritage Council and DEC for approval within 12 months of the commencement date.

The plan shall provide a strategic framework for conserving and managing Aboriginal cultural heritage values and provide a schedule of conservation works. It must consider all Aboriginal cultural heritage values associated with the Quarantine Station site, including physical sites, wild resource use, and social values in a traditional, historical and contemporary context.

- 71) The plan shall address, but not be limited to, the following matters:

- a) the identification of key stakeholders and their interest;
- b) the identification and documentation, as appropriate, of Aboriginal cultural values, taking into account values associated more broadly with North Head, and provide a statement of significance;
- c) document the results of an audit of all Aboriginal sites known to occur in the lease area. The audit shall:
  - ⊄ review and consolidate records from all previous investigations at the Quarantine Station<sup>40</sup>
  - ⊄ record any previously unrecorded sites, and identify any site duplications
  - ⊄ develop an Aboriginal site data layer for use on the Quarantine Station GIS database (access restrictions to

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<sup>40</sup> to include recent investigations by P. Hughes for the NSW Heritage Office, Darwala-Lia (2001) and AMBS (2002).

data will be determined in consultation with the relevant Aboriginal community group/s);

- d) constraints and opportunities;
  - e) conservation policy / objectives;
  - f) strategies or actions;
  - g) provide a schedule of conservation works required for Aboriginal sites within the lease area. The schedule should be based on the recent conservation assessment conducted by AMBS (2002) for the NPWS, and shall be incorporated into the Conservation Works Program (condition 78);
  - h) management responsibilities, performance measures and monitoring procedures; and
  - i) liaise with DEC and use the information to update the NPWS Aboriginal Heritage Information Management System.
- 72) The co-proponents shall undertake a review of the Aboriginal Heritage Management Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken in consultation with the Heritage Council, DEC and relevant Aboriginal stakeholders. On the basis of the review the co-proponents shall, as necessary, prepare a revised Aboriginal Heritage Management Plan to be submitted to the Heritage Council and DEC for approval.
- 73) Any conservation works for Aboriginal sites are to be undertaken in accordance with the plan and schedule of conservation works and in consultation with the relevant Aboriginal community group/s.
- 74) The co-proponents will undertake on-going consultation with the relevant Aboriginal community groups on aspects of the proposal and operation of the site that relate to Aboriginal heritage. These aspects shall include, but not be limited to:
- a) the development of protocols for Aboriginal community involvement in the management of Aboriginal heritage within the lease area;
  - b) the development of educational material and tours interpreting Aboriginal heritage;
  - c) opportunities for establishing a centre for Aboriginal cultural heritage on site;
  - d) on-going evaluation of the Aboriginal cultural heritage values of the site (to include both new information on historical

associations and emerging contemporary values of the place, such as wild resource use); and

- e) other relevant matters identified in consultations between the co-proponents and the Aboriginal communities.

Relevant groups and individuals to be consulted shall be determined in consultation with the DEC.

- 75) There shall be no promotion of or public access to Aboriginal sites within the Quarantine Station unless endorsed by the relevant Aboriginal community group/s and the DEC.
- 76) A fence shall be installed near the southwest end of Building A14-17 to limit public access to Cannae Point within twelve months of the commencement date. The location and design of the fence shall:
  - a) be determined in consultation with the relevant Aboriginal community groups;
  - b) take into account fencing requirements for the protection of Little Penguin habitat (see condition 174); and
  - c) be designed in consultation with the DEC prior to the lodgment of an application for construction work.

## **HISTORIC HERITAGE**

### **Conservation Works Program**

- 77) For the purposes of the following conditions of approval, conservation works are those works that are essential and necessary to retain the cultural significance of the place. This may include, but is not limited to:
  - a) building, landscape and infrastructure works to the extent that these demonstrably contribute to the physical conservation of the site;
  - b) curatorial work on inscriptions, archives, artefacts and moveable heritage;
  - c) environmental management programs, such as erosion, weed and feral animal control;
  - d) a portion of works to improve visitor access within the site (being basic works, such as disabled access ramps, that are considered essential to provide equitable access and to minimise visitor impacts); and

- e) a portion of works to improve visitor understanding of the significance of the place (being basic works, such as interpretive displays).

It does not include:

- a) works associated with the planning, design and the physical reconstruction of buildings P21, P22, P23 and H1;
  - b) assessment work or documentation undertaken as part of the preparation of the EIS or PAS, including design drawings;
  - c) assessment work or documentation to be undertaken as part of the preparation of detailed design plans for proposed adaptation work; or
  - d) works completed prior to the commencement date, with the exception of urgent works identified in the DACMP.
- 78) The co-proponents shall prepare and submit a final Conservation Works Program (CWP) to the Heritage Council and the DEC for approval as follows:
- a) Stage 1 of the CWP encompassing works required for all buildings, structures and landscape elements, including but not limited to those identified in the DACMP and the asbestos sampling and replacement strategy (condition 111), shall be prepared within six months of the commencement date; and
  - b) Stage 2 of the CWP encompassing all works identified for Aboriginal sites (condition 70), the Moveable Heritage and Resources Plan (condition 85), Heritage Landscape Master Plan (condition 91), Inscriptions Plan (Condition 95), Interpretation Plan (condition 100) and Infrastructure Control Plan (as relevant – condition 105) shall be prepared and incorporated into the CWP as soon as practicable.
- 79) For all heritage items covered by condition 78) above, the CWP shall include, but not be limited to the following:
- a) identification of all conservation works and priorities at a site level. This should identify urgent works (0-1 year), medium term work (1-3 years) and long term work (3-5 years);
  - b) identification of all works relevant to ensuring public health and safety for each building or historic item (such as the removal and stabilisation of asbestos materials);
  - c) identification of any issues requiring further assessment or research, an approach for addressing this, and a timeframe where appropriate;

- d) an outline of the methodology, materials and standards to be followed for all maintenance works; and
  - e) identification of any on-going monitoring requirements.
- 80) Following the approval of Stage 1 of the CWP, the co-proponents shall undertake the urgent and medium term priority conservation works in accordance with the staging plan for the activity, as amended by condition 31).
- 81) All conservation works, excluding minor maintenance repairs or works (as defined), shall be conducted in accordance with the Conservation Works Program.
- 82) The co-proponents shall undertake a review of the CWP concurrent with or prior to the first comprehensive audit of the activity (condition 228), and thereafter on an annual basis as part of the overall annual environmental report (condition 221). An annual review is not required in the year that a comprehensive review of the CWP occurs (condition 83).

The review must be undertaken in consultation with the DEC and the Heritage Council, and include:

- a) a list of conservation works implemented;
- b) the identification of any additional conservation works required to be undertaken. This must include specific consideration of the condition of all asbestos items and actions required to ensure that public health and safety standards are met ; and
- c) information on the amount spent on conservation works (including maintenance works) within the site annually, together with independent verification of expenditures provided by a quantity surveyor. The information should include a breakdown on costs and works undertaken.

Advice must be sought from the relevant Aboriginal community group/s, an appropriately qualified and experienced conservation practitioner and other specialists as required in the review process.

- 83) The co-proponents shall undertake a regular comprehensive review of the CWP concurrent with or prior to the on-going (5 yearly) comprehensive audits of the activity (condition 228). The review shall be undertaken in consultation with the Heritage Council and the DEC. In addition to the matters referred to above, the review shall include a re-assessment of the condition of each heritage item (historic and Aboriginal) and a re-assessment of conservation priorities.

- 84) On the basis of the comprehensive review and the outcomes of the comprehensive audit process (condition 226) the co-proponents shall, as necessary, prepare a revised CWP to be submitted to the DEC and the Heritage Council for approval.

### **Moveable Heritage and the Resource Collection**

- 85) The co-proponents shall submit a Moveable Heritage and Resource Collection Plan<sup>41</sup> within 12 months of the commencement date. The plan shall include all items of moveable heritage and items from the resource collection. The plan shall address the requirements of the *State Records Act 1998* and other relevant legislation and be prepared by a suitably qualified person with demonstrated skills and experience in the management of archival collections.

The plan shall be reviewed by the Heritage Advisor and submitted to the DEC and the Heritage Council for approval. Implementation of the plan must commence within 3 months of its approval.

- 86) The plan shall include, but not be limited to:
- a) the documentation and recording of all moveable heritage and resource collection items, to be registered on a database system;
  - b) a condition assessment of each moveable heritage item and, as appropriate, items in the resource collection and a prioritised schedule of conservation works required. This shall be incorporated into the Conservation Works Program (condition 78);
  - c) collection management guidelines, including:
    - ≠ a system for referencing and recording information for all items, with an ability to incorporate new information and/or items as it becomes available;
    - ≠ storage requirements for all items, including:
      - consideration of whether items should be stored on- or off-site.
      - conservation requirements for housing and storing items.

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<sup>41</sup> these terms are defined in the definitions section



- an approach to the documentation and storage of fabric and materials removed during construction and adaptation works. This should consider the requirements outlined in the DACMP; and
  - € a system and protocols for public access to items, and the loan of items outside the Quarantine Station;
  - d) fabric and material sampling guidelines, with reference to the minimum requirements outlined of the Archaeological Management Plan; and
  - e) identify and implement a system for cross-referencing the collections held by other institutions (eg. State Records NSW and the National Archives of Australia) which relate to the Quarantine Station site.
- 87) No items of moveable heritage or items from the resource collection shall be used for display purposes or made available on loan outside the Quarantine Station until the Moveable Heritage and Resources Plan has been adopted.
- 88) The display, storage, loan and public access of moveable heritage must be undertaken in accordance with the Moveable Heritage and Resources Plan.
- 89) The co-proponents shall undertake a review of the Moveable Heritage and Resources Plan every five years after the commencement date for the duration of the activity. On the basis of the review the co-proponents shall, as necessary, prepare a revised Moveable Heritage and Resources Plan to be submitted to the DEC and Heritage Council for approval.

### **Heritage Landscape Master Plan**

- 90) The cultural landscape will be conserved, managed and interpreted primarily to reflect its 1958-84 form (the Aviation phase). The interpretation of earlier landscape conditions is appropriate providing there is demonstrated compliance with the policies in the QSCMP, DACMP and Interpretation Plan (condition 100) or a clear justification for any proposed variances.
- 91) The co-proponents shall engage a qualified horticulturist, arborist and heritage landscape specialist to prepare a site wide Heritage Landscape Master Plan within 18 months of the commencement date. The plan shall be reviewed by the Heritage Advisor and submitted to the DEC and Heritage Council for approval.
- 92) The Plan must address, but not be limited to:

- a) objectives for the management of the cultural landscape, including geology and soils, cultural plantings, bushland, paths and edgings, fences and walls, cemeteries, grave markers, and former landscape features;
- b) an assessment of the condition of existing cultural plantings (including grassed areas), walls, fences, stormwater drains, paths and edgings, and identification of areas of soil erosion and contamination;
- c) a prioritised schedule of conservation and/or remediation works, to be incorporated into the Conservation Works Program (condition 78);
- d) proposed changes to the existing landscape, to be supported by research where necessary;
- e) proposed management protocols, practices and maintenance works for all landscape features. This should include, but not be limited to:
  - ⌘ stabilisation of eroded areas
  - ⌘ drainage, irrigation and use of fertilisers
  - ⌘ treatment of lawn edges and bushland/lawn interfaces, including natural regenerated areas where these have encroached on significant historic sites
  - ⌘ monitoring and treatment of trees
  - ⌘ species list and guidelines for cultural plantings, including a re-planting strategy
  - ⌘ the introduction of new plant or organic materials
  - ⌘ materials and construction techniques to be used in landscaping works.
- f) a bush regeneration program (as defined);
- g) identify general areas where the planting of new vegetation to provide small-scale shelter habitat for Long-nosed Bandicoots could occur without significant impact on the cultural landscape (condition 165);
- h) monitoring requirements; and
- i) consider the following specific issues:
  - ⌘ **First Class Precinct Plan** – options for re-instatement of the covered walkway from Building P6 to Building P5, as

required by the DACMP, and potential impacts associated with these;

- ∉ **Third Class / Asiatic Precinct** – options for re-instatement of selected former access paths within the precinct as an interpretive tool;
  - ∉ **Entry area at Building A2** (refer Schedule 3) – identify appropriate design outcomes for the entry area at Building A2 and consider options such as a courtyard or reversible deck, to balance the new uses for this area with the unadorned nature of the Quarantine Station landscape and the historical and archaeological context of the location; and
  - ∉ **Second Cemetery** – identify options for formalising access to and within the Second Cemetery, including options for a single stabilised path or constructed walkway. Consideration should be given to: design and materials; and potential environmental impacts and mitigative strategies.
- 93) All landscape works, excluding minor maintenance works (as defined), are to be undertaken in accordance with the adopted Heritage Landscape Master Plan, with the following exceptions:
- a) **car park construction** – where an application for construction works is approved prior to the adoption of the Plan; and.
  - b) **the establishment of a stabilised path or walkway in the Second Cemetery (condition 92)** – where an application for construction works is approved prior to the adoption of the Plan.
- 94) The co-proponents shall undertake a review of the Heritage Landscape Master Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken with advice from a heritage landscape specialist and other relevant specialists. On the basis of the review the co-proponents shall, as necessary, prepare a revised Heritage Landscape Master Plan to be submitted to the DEC and the Heritage Council for approval.

### **Inscriptions / Engravings**

- 95) The co-proponents shall engage an appropriately qualified and experienced conservation specialist in rock art or stone conservator to prepare an Inscriptions Management Plan within 18 months of the commencement date. The plan shall be

reviewed by the Heritage Advisor and submitted to DEC and the Heritage Council for approval.

The plan will cover the engravings, inscriptions, pit cover engravings and wall inscriptions together with options for managing public access such as fencing and re-alignment of the lower walkway from the Hospital to Wharf Precincts.

The plan shall:

- a) provide a brief description of the location, significance and condition of all engravings and inscriptions within the site;
  - b) identify the need for further recording or documentation of engravings and inscriptions;
  - c) outline objectives and strategies for the management of the engravings and inscriptions. In identifying management options, an assessment of potential environmental impacts of works must be undertaken and incorporated into the document. At a minimum, this must address all works requiring direct contact with the surface of inscriptions and engravings, such as cleaning, graffiti removal, taking of moulds and repainting;
  - d) provide a prioritised schedule of works, including conservation works and a maintenance program, as required, to be incorporated into the Conservation Works Program (condition 78); and
  - e) develop an on-going monitoring program to assess the condition of engravings and inscriptions.
- 96) The co-proponents shall undertake a review of the Inscriptions Management Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken with advice from relevant specialists. On the basis of the review the co-proponents shall, as necessary, prepare a revised Inscriptions Management Plan to be submitted to the DEC and the Heritage Council for approval.
- 97) No works shall be undertaken on, or in respect to the inscriptions or engravings prior to the adoption of the Inscriptions Management Plan. Any interim arrangements to manage access to the inscriptions for interpretive purposes must be approved by the DEC and the Heritage Council.
- 98) All conservation works on the engravings and inscriptions shall be undertaken by an appropriately qualified and experienced conservation specialist. For the rock engravings, this means a qualified and experienced rock art or stone conservator.

## **Internal fitout**

- 99) The co-proponents shall engage a suitably qualified and experienced person to prepare a site wide plan for internal building fitout within 12 months of the commencement date. The plan shall be reviewed by the Heritage Advisor and submitted to DEC and the Heritage Council for approval. All internal fittings installed across the site must be consistent with the adopted plan.

The Plan shall:

- a) outline the specifications and style of all new plumbing, telecommunication and electrical fittings, and floor coverings to be installed across the site. It must include taps, spouts, shower heads, basins, baths, toilets, electrical fittings, carpets and floor tiling, etc, and demonstrate consistency with the relevant policies of the DACMP; and
- b) outline an approach to sampling of bathroom and toilet fitouts across the site from the 1958-62 period, taking into account the relevant policies of the DACMP.

## Archaeology

99A)<sup>42</sup>

- a) An Excavation Permit must be obtained before the commencement on site of any works involving potential disturbance of relics. An archaeologist (Excavation Director) approved by the Heritage Council must be appointed to undertake all archaeological work.
- b) The research design outlined in the Quarantine Station Detailed Area Conservation Management Plan (QSDACMP) must form the basis for interpretation of archaeological deposits and relics.
- c) Provision must be made in a public area of the Quarantine Station site to display relics or other historical or research material relevant to the historical development of the site. This display must be integrated with the Interpretation Plan.
- d) Should substantial intact archaeological deposits or features not identified in the Archaeological Assessment be discovered, work must cease in the affected area(s) and the Heritage Office contacted for advice. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.
- e) The archaeologist must remain present during the course of all excavation works in the archaeologically sensitive areas of the proposed development.
- f) The archaeologist must be allowed access to archaeological deposits at all times during mechanical excavation and mechanical excavation must cease at the request of the archaeologist, to allow for investigation of archaeological remains.
- g) Opportunities for public visitation to the site will be provided during the program of archaeological works and, where appropriate, community and student volunteers will be invited to participate in field work.
- h) The excavation permit will be valid only while the approved excavation is being carried out under the direction of the nominated Excavation Director
- i) The Excavation Director must carry out the excavation in accordance with the approved research design and methodology. Any substantial deviations from the approved research design (including extent and techniques of excavations) must be approved by the Director, Heritage Office.
- j) The Excavation Director must take adequate steps to record relics, structures and features discovered on the site during the excavation in accordance with current best practice guidelines and the approved research design.

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<sup>42</sup> incorporates a Heritage Council condition of approval, as granted under the Heritage Act 1977.

- k) The co-proponents must endeavour to ensure that the unexcavated artefacts, structures and features are not subject to deterioration, damage or destruction.
- l) The co-proponents shall be responsible for the safe-keeping of all relics recovered from the site.
- m) The Excavation Director shall be responsible for ensuring that the artefacts are cleaned, stabilised, identified, labelled, catalogued and stored in a way that allows them to be retrieved according to both type and provenance.
- n) The Heritage Council and the Heritage Office reserve the right to inspect the site and records at all times and access any relics recovered from the site.
- o) The co-proponents shall prepare a final report on the excavation, to publication standard, within one year of the conclusion of the project unless an extension of time is approved by the Heritage Council. Two copies of this report must be submitted to the Heritage Office. A further copy must be retained on site as part of the interpretive collection.
- p) The final report shall include:
  - ⌘ an executive summary;
  - ⌘ due credit on the title page to the co-proponents paying for the excavation;
  - ⌘ an accurate site location and site plan;
  - ⌘ historical research, references, and bibliography;
  - ⌘ detailed information on the excavation including the aim, the context for the excavation, procedures, analysis, treatment of artefacts (cleaning, conserving, sorting, cataloguing, labelling, scale drawings, photographs, repository);
  - ⌘ nominated repository for the items;
  - ⌘ detailed response to research questions; and
  - ⌘ details of how this information about this excavation has been publicly disseminated.
- q) Should any Aboriginal relics be uncovered, or excavation or disturbance of the area occur, work is to stop immediately and the National Parks and Wildlife Service is to be informed in accordance with the *NPW Act 1974*.

## INTERPRETATION

### Interpretation plan

- 100) Prior to the commencement of any new interpretive activities or educational tours on the site, the co-proponents shall submit a final Interpretation Plan to the DEC and the Heritage Council for approval. The Interpretation Plan must be prepared by a suitably qualified and experienced interpretive planner in accordance with the policies and objectives outlined in the QSCMP and DACMP. The plan must detail the approach to presenting the significance of the place and address the following matters:
- a) the interpretation objectives and principles for the site and the proposal;
  - b) a targeted analysis of the significance of the place and the primary and secondary interpretation themes and messages for the site;
  - c) identify the key target audiences for interpretation;
  - d) identify the preferred options for delivery of interpretive programs (eg. signage, guided tours, publications, Internet, etc); and
  - e) detail methods for monitoring and evaluating the implementation of the Plan.
- 101) The Interpretation Plan shall also address the following site-specific matters:
- a) the provision of interpretive material in the proposed visitor centre (Buildings A14-17) that allows all visitors to the site to gain an understanding of the context, significance and history of the Quarantine Station;
  - b) opportunities for the establishment of theme museums or displays across the Quarantine Station site;
  - c) interpretation of the full length of the former Funicular route;
  - d) interpretation of Buildings P17, A18 ,A24 and S6;
  - e) interpretation of earlier landscape conditions (refer condition 90); and
  - f) controlled tour access to the internal areas of accommodation buildings. This includes access to the Dining Room area in Building P5 when this room is not otherwise in use for function-based dining;



- 102) All interpretive activities on the Quarantine Station shall be undertaken in accordance with the approved Interpretation Plan.
- 103) The co-proponents shall undertake a review of the Interpretation Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken by a suitably qualified and experienced interpretive planner, in consultation with the Heritage Council. The review shall include, but not be limited to:
- a) the range of interpretive programs being offered at the Quarantine Station. This shall include a review of the content, methods of delivery and consideration of contemporary best practice in interpretation;
  - b) consider relevant results of the visitor monitoring program and adaptive management responses;
  - c) consider the provisions of any current endorsed conservation management plan for the site; and
  - d) provide recommendations for any revisions to the Interpretation Plan.

On the basis of the review the co-proponents shall, as necessary, prepare a revised Interpretation Plan to be submitted to the DEC for approval.

## **INFRASTRUCTURE**

### **Further approvals**

- 104) A separate application and approval under Part 5 of the *EP&A Act 1979* and other relevant legislation will be required for any amplification of the existing water supply and sewerage system. This does not include on-site works identified for the upgrading of the fire hydrant system or the installation of water tanks in the area adjoining the Lower Reservoir.

### **Infrastructure Control Plan**

- 105) The co-proponents shall prepare a site-wide Infrastructure Control Plan to be submitted within 12 months of the commencement date. The plan shall be prepared in consultation with NSW Fisheries, Environment Protection Authority, Sydney Water, Energy Australia and other relevant authorities. With the exception of the matters detailed in condition 106) c), the plan shall be reviewed by the Heritage Advisor and submitted to DEC and the Heritage Council for approval.
- 106) The plan shall address, but not be limited to, the following:

- a) an assessment of the location, current capacity and condition of the water supply and sewerage system;
- b) an assessment of the current condition of the internal roads;
- c) minimum design standards for internal roads, including the location and design principles for all proposed road infrastructure, including road surfaces, edges, speed humps and signs. These shall take into account all relevant industry standards and codes, as well as the historic heritage value of the roads.

Notwithstanding the provisions of condition 105) or condition 112), within 6 months of the commencement date the co-proponents shall submit for approval of the DEC sufficient information regarding the minimum design standards to enable compliance with conditions 145)-146) and 148);

- d) provide a scaled map and GIS data layer (condition 66) showing the location and route of all water, sewerage, stormwater, power, telecommunications, roads and any related infrastructure across the site, both existing and disused services. It shall identify materials and likely period of installation, and be linked to a list of upgrade specifications for each infrastructure component;
- e) provide a schedule and map indicating the location of all significant services to be retained and conserved, as per the requirements of the DACMP;
- f) a schedule of repair and maintenance works and new works proposed including a prioritisation of works and timeframes. Priority should be given to the identification of any works needed to upgrade or replace the fire hydrant system. The principle of common trenching of services should be adopted for all new works proposed;
- g) identify strategies to improve stormwater management, including:
  - ⊄ opportunities for reducing stormwater discharge from the site, including options for redirecting stormwater discharge away from Quarantine Beach
  - ⊄ an assessment of works required to secure the stormwater outlet at Quarantine Beach to minimise public safety risk
  - ⊄ assess the need to install a flow dissipator into the stormwater outlet at Quarantine Beach. Any design shall

be developed in consultation with NSW Fisheries and must not inhibit fish passage

- ≠ assess the need to install gross pollutant traps at or near stormwater discharge outlet/s and car-parks;
  - h) a monitoring program to allow an on-going assessment of the consumption and capacity of the water supply and sewerage systems. This shall include the identification of triggers for system upgrades; and
  - i) an emergency strategy for utility infrastructure failures or malfunctions, to include sewerage system overloads and overflows, power failures and water supply.
- 107) All infrastructure maintenance and upgrade works, excluding minor maintenance repairs or works (as defined) and priority traffic calming measures (conditions 145)-146), shall be undertaken in accordance with the adopted Infrastructure Control Plan.
- 108) All investigative techniques employed in preparing the Infrastructure Control Plan shall be non-destructive and non-polluting (as defined) and comply with the relevant industry guidelines and standards. Approval from the DEC and other relevant authorities will be required for any techniques that will or may have an environmental impact.
- 109) The co-proponents shall undertake a review of the Infrastructure Control Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken in consultation with those agencies listed in condition 105) above, relevant public authorities and infrastructure providers. On the basis of the review the co-proponents shall, as necessary, prepare a revised Infrastructure Control Plan to be submitted to the DEC for approval.

### **Work sites**

- 110) Any works requiring the excavation or trenching of areas shall be staged so that the extent of excavation or trenching does not exceed 50 metres at any one time. Any such works shall also be undertaken in accordance with condition 159).

### **Asbestos and rainwater system**

- 111) The co-proponents shall prepare and implement a sampling and replacement strategy for the AC rainwater system and AC vinyl tiles on the site in accordance with the policies outlined in the DACMP. The strategy shall be reviewed by the Heritage Advisor

and submitted to the DEC and the Heritage Council for approval.

The strategy shall include a prioritised schedule of replacement works, to be incorporated into the Conservation Works Program (condition 78).

### **Outdoor visitor infrastructure**

112) The co-proponents shall prepare a site-wide-plan for outdoor visitor infrastructure prior to the installation of any outdoor visitor infrastructure. The plan shall be reviewed by the Heritage Advisor and submitted to the DEC and the Heritage Council for approval. The plan shall demonstrate consistency with other relevant site-wide plans such as the Interpretation Plan and Heritage Landscape Master Plan, and address, but not be limited to:

- a) the proposed location, design and materials of the external lighting system, to include any emergency lighting. Lighting should have regard to the following principles:
  - ∄ the avoidance of light spill in areas of high-use Long-nosed Bandicoot foraging habitat (as identified in Illustration 15 of the DACMP or the revised habitat assessment – condition 165) and Little Penguin habitat<sup>43</sup>
  - ∄ the use of lights in the red-orange spectral range in the Wharf Precinct
  - ∄ minimising light spill across the site and outside of the site
- b) the proposed location and design of waste receptacles, including fauna-proof bins;
- c) the proposed location, design and materials for signage, to include proposed text, style, graphics, and colours;
- d) a consideration of the environmental impacts of the specific locations and methods of installation for each element of outdoor visitor infrastructure; and
- e) compliance with relevant industry guidelines, codes, Australian Standards and the Building Code of Australia (BCA).

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<sup>43</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

- 113) Prior to the commencement of any works associated with the installation of outdoor lighting, a sample of the proposed lighting of both general outdoor areas and any emergency lighting must be completed in consultation with the Heritage Council and approved by the DEC.
- 114) The use of laser or neon lighting (with the exception of emergency lighting), food or beverage vending machines, and commercial advertising signage on the site is not permitted.
- 115) All outdoor visitor infrastructure works shall be undertaken in accordance with the adopted plan and an approved Precinct Plan.

## **SECURITY**

### **Security system**

- 116) The co-proponents shall prepare a whole-of-site Security Plan in consultation with the NSW Police, to be submitted within 12 months of the commencement date. The plan shall be reviewed by the Heritage Advisor and submitted to the DEC for approval. Implementation of the plan must commence within three months of the date of its approval.

The plan shall address, but not be limited to:

- a) the DACMP subsidiary policies 16.7.1 – 17.7.6 with respect to locks and hardware across the site;
  - b) a master-key system across the site that enables a consistent approach to keying;
  - c) a monitored alarm system for buildings containing collections, that are periodically used for interpretation or that are remote and difficult to monitor, and security measures for all other buildings (eg. those in daily use);
  - d) enforcement powers under the NPW Act and protocols for dealing with breaches of the Act;
  - e) reporting structure and protocols for dealing with security incidents, to include communication protocols with DEC and the NSW Police; and
  - f) the need for security personnel on site.
- 117) The co-proponents shall undertake a review of the Security Plan every five years after the commencement date for the duration of the activity. The review shall be undertaken in consultation with the NSW Police. On the basis of the review the co-proponents

shall, as necessary, prepare a revised Security Plan to be submitted to the DEC for approval.

## **TRANSPORT & ACCESS**

### **Access Strategy**

- 118) The co-proponents shall prepare and submit a final Access Strategy for the site to the DEC and DIPNR for approval within 6 months of the commencement date. The strategy shall be prepared in consultation with the Heritage Council, Manly Council and the State Transit Authority. Once approved, the co-proponents shall implement the Access Strategy.

The final Access Strategy must address but not be limited to:

- a) all available means of access to the site, including details of the ferry service and shuttle bus operation (including operating times, pick up/set down points, etc) (conditions 138)-142) and 155);
- b) access provisions within the site, including constraints and management strategies, details of service vehicles, bus and taxi access. Specific consideration shall also be given to access arrangements for the Second Cemetery (condition 124);
- c) access provisions to the wharf, including the arrival and departure routes for the ferry. These routes shall generally be in accordance with Figure 11.2 in the EIS. The co-proponents shall consult with NSW Fisheries regarding this matter<sup>44</sup>;
- d) measures to promote public transport and reduce private vehicle access to the site;
- e) measures to be implemented to prevent additional visitors entering the site once visitor capacities, as specified in condition 120), have been reached;
- f) measures to ensure that a reasonable proportion of visitors in any one day include day visitors that arrived without pre-booking a tour or other activity;
- g) measures to provide for disabled, concession and non-English speaking access to the site and to enable participation in site activities;

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<sup>44</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

- h) the provision of disabled access to every precinct. This component of the Access Strategy shall be prepared in accordance with the requirements of the Disability Discrimination Act and any guidelines or standards established under the Act; and
  - i) the visitor monitoring program (condition 156).
- 119) The co-proponents shall undertake a review of the Access Strategy every five years after the commencement date for the duration of the activity. The review shall be undertaken in consultation with the Heritage Council, Manly Council and the State Transit Authority. On the basis of the review the co-proponents shall, as necessary, prepare a revised Access Strategy to be submitted to the DEC and DIPNR for approval.

### **Site visitor capacity**

- 120) For the first 3 years after the commencement date:
  - a) the visitor capacity for the site shall be a maximum of 450 people (including staff) on site at any one time;
  - b) the optimum visitor capacity shall be up to 315 people (including staff) on site at any one time. The co-proponents shall take all reasonable steps to ensure that the optimum visitor capacity (or less) is met for a majority of the time during which the site is publicly accessible.
- 121) Any proposal to increase the site capacity or the optimum visitor capacity after this time must be publicly exhibited and submitted for the approval of the DEC and DIPNR. The proposal must be accompanied by a clear assessment of the potential impacts of any increase on the significance of the Quarantine Station and justification based on the results of the visitor and site monitoring programs.

### **Pricing**

- 122) The co-proponents shall ensure that all services and facilities at the site are made available at varying price-scales, commensurate with the standard of service to be provided, to facilitate choice and encourage equitable community access to the site. This shall include, but not be limited to, accommodation, tours, interpretive activities and educational facilities.
- 123) Concessional pricing shall be provided for all tours and interpretive activities at the site.

## **Access to the Second Cemetery**

- 124) Based on the options identified in the Heritage Landscape Master Plan [condition 92) i)] suitable arrangements for providing managed access to the Second Cemetery shall be provided within 18 months of the commencement date. If measures for managed access have not been implemented after 18 months, regular public access to this area shall cease until such arrangements are in place. In the meantime, access to the Second Cemetery shall be limited to one tour group of up to 25 persons at any one time.

If any adverse impacts are identified prior to the access system being implemented, measures to reduce such impacts shall be introduced following consultation with the DEC.

## **Special events, functions and free open days**

- 125) The number of special events or activities requiring overflow parking shall be limited to 6 per year. Special events include uses (eg. re-enactments, festivals, etc) and public open days that are not part of the normal operations (eg. tours) and extend beyond those function, conference, accommodation and restaurant uses identified in the PAR.
- 126) At least two free public open days are to be held at the site every year. The open days shall be held on either a weekend or public holiday. They shall include opportunities for people to participate in organised tours and interpretive activities that promote an understanding of the site's values, at no cost. Tours and activities may also be provided that outline the methods of conservation and management being used at the site, also at no cost. A booking system may be used to ensure that the site capacity limits in condition 120) are not exceeded.
- 127) Special event and public open day proposals are to be submitted to the DEC for approval. The co-proponents shall also consult with the Quarantine Station Community Committee and Manly Council prior to submission to the DEC. Proposals may only proceed if the DEC is satisfied that:
- a) sufficient traffic and car-parking and pedestrian management measures will be provided (both on and off-site);
  - b) noise and light impacts will be minimised; and
  - c) that the proposal will promote or enhance the interpretation of the place.

The DEC may direct the co-proponents to undertake all practicable steps to address the above matters and to ensure



that the minimum number of public open days are provided in accordance with condition 126).

- 128) Any special events or functions held after sunset shall:
- a) if they are to be held outdoors, be located away from the areas identified as high-use Long-nosed Bandicoot foraging habitat in the DACMP (Illustration 15) or the revised habitat assessment (condition 165);<sup>45</sup> or
  - b) if they are to be held in the Wharf Precinct, must be held indoors. This does not preclude normal operations undertaken as part of the restaurant in building A6, including the outdoor eating area.

### **Night tours**

- 129) For the first three years after the commencement date the maximum number of visitors on night tours shall not exceed 100 persons and 3 tour groups on the site at any one time. After this time any proposal to increase night tour capacities must be submitted for the approval of the DEC. The proposal must be accompanied by a clear assessment of the potential impacts of any increase on the significance of the Quarantine Station and justification based on the results of the visitor and site monitoring programs (particularly monitoring Long-nosed Bandicoot foraging activity).<sup>46</sup>
- 130) Night tours are to be undertaken on formed roads, paths or the Funicular stairway, unless part of an approved special interest tour.
- 131) Unless approved as part of a special interest tour, measures are to be taken to ensure that night tour patrons do not use spotlights or flash-photography in outdoor areas (with the exception of the lanterns or torches used as part of the ghost tours).
- 132) At the conclusion of any night tours on site, arrangements are to be made to transport visitors in an orderly manner from the conclusion point of the tour to the:
- a) accommodation area (for those visitors staying on site overnight);

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<sup>45</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>46</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

- b) relevant car park (for those visitors departing by car or bus);  
or
- c) to the Wharf Precinct (for access to the ferry).

This may include, but is not limited to, the use of a shuttle bus or groups led by a guide.

- 133) Notwithstanding the provisions of condition 129), the DEC may at any time direct that night tour numbers are reduced, and/or other appropriate measures implemented, if it is satisfied on the basis of monitoring programs that night tours are having adverse impacts on the Long-nosed Bandicoot population. The co-proponents shall comply with any such directions issued by the DEC.

### **Special interest tours**

- 134) No special interest tours may be run without the approval of the DEC (this may be undertaken as part an application for a tour operators license under the *NPW Act*). This will include tours to Store Beach, Cannae Point or other areas of the site (including bushland areas, rocky foreshores, Old Mans Hat and the cemeteries). This excludes the four main tours<sup>47</sup> proposed by the co-proponents in the PAS. In seeking approval for special interest tours, the following information shall be provided to DEC:
- a) proposed frequency and size of tours;
  - b) compliance with the Access Strategy and Interpretation Plan (conditions 118) 100);
  - c) details of the tour activities and route, including buildings and other features to be visited; and
  - d) a statement identifying and addressing any potential environmental issues that may arise, including management of visitor safety, and measures to address these.
- 135) The co-proponents shall ensure that any approved special interest tours are subject to a specific monitoring and review program to enable assessment of potential visitor impacts.

### **School and educational programs**

- 136) Provision shall be made for school groups to have access to the site without the need to stay overnight.

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<sup>47</sup> ie. the Ghost tours, 1918 Night Experience, Quarantine Explorer and Being Quarantined

- 137) Overnight educational programs must ensure a high-level of student supervision to prevent uncontrolled night activities or access across the site. Students must also be supervised during any periods of student “free-time” during the day and confined to distinct areas of the site, that is there is to be no general or uncontrolled access across the site.

### **Water-based access**

- 138) The ferry service between Manly and the Quarantine Station site shall:
- a) commence within 6 months of the commencement date or, if this cannot be achieved due to circumstances beyond the reasonable control of the co-proponents, within such other time as the DEC may approve;
  - b) generally arrive and depart between the hours of 9:00 am and 11:00 pm respectively;
  - c) be limited to a maximum of one movement<sup>48</sup> per hour, after sunset, between July and February inclusive, to reduce the potential for impacts on the Little Penguin population. A maximum of 20 movements in one day may occur at other times to encourage water-based access to the site;<sup>49</sup> and
  - d) with the exception of extreme weather events and maintenance periods, be provided on an hourly basis during the peak periods of visitor activity.
- 139) The co-proponents shall undertake all practicable measures to ensure that:
- a) within 3 years of the commencement date, the proportion of visitors accessing the site by the ferry is 40% or greater; and
  - b) within 5 years of the commencement date, the proportion of visitors accessing the site by ferry is between 40% - 50% and stays at this level, or greater, for the life of the project.
- 140) The wharf facility shall be used in accordance with the following provisions:
- a) the wharf shall only to be used for the casual berthing of the vessel “The Jenner”, or an appropriate vessel of similar

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<sup>48</sup> one “movement” is defined as the arrival and departure of a ferry

<sup>49</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

dimensions and loadings. Assistance must be provided to persons with mobility limitations;

- b) the ferry must always dock at the head of the wharf (ie. the north-western end) until such time as any future alterations to the wharf have been assessed and approved by the relevant authorities;
  - c) the ferry shall not moor at the wharf when not in active use (ie. overnight);
  - d) the ferry shall not moor at the wharf during unsuitable weather events (eg. storms, strong winds, large swells);
  - e) the co-proponents shall ensure that there is no access to the wharf as part of the activity by recreational or commercial vessels until such time as any proposed access arrangements for these vessels have been assessed and approved by the relevant authorities. The wharf shall include signage to indicate that access is prohibited unless authorised by the Waterways Authority and DEC;<sup>50</sup> and.
  - f) There shall be no vessel access on the south-western side of the wharf, parallel to Cannae Point.<sup>51</sup>
- 141) Minor variations to the provisions of condition 140), a), b) and c) above may be approved by the Waterways Authority and the DEC, upon receipt of an application from the co-proponents. The application shall address, but not be limited to, safe berthing/mooring arrangements, disabled visitor access, potential impacts on seagrasses (eg. from overshadowing and propellor wash) and Little Penguins.

Any significant variations to these conditions, and any variations to condition 140) e), shall (if necessary) require a separate application and approval under Part 5 of the *Environmental Planning and Assessment Act 1979* and other relevant legislation.

The Waterways Authority and DEC shall consult with NSW Fisheries before any variations are approved.<sup>52</sup>

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<sup>50</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>51</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

<sup>52</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

- 142) When the ferry is not available for use (due to extreme weather events or maintenance) the co-proponents shall provide a shuttle bus or some other means of public transport between the site and Manly.

### **Road-based access**

#### **Private vehicle targets**

- 143) The co-proponents shall undertake all practicable measures to ensure that within 5 years of the commencement date, the proportion of visitors accessing the site by private vehicle does not exceed 50% and stays at this level, or less, for the life of the project.

#### **Management of vehicle access**

- 144) A 15 km/h speed limit for all vehicles within the site shall be imposed within 3 months of the commencement date.
- 145) As a priority measure, traffic calming devices shall be provided within 6 months of the commencement date along the following roads:
- a) from A26 to CP5;
  - b) from S12 to S5; and
  - c) from A26 to A23 (no traffic calming devices are required between S15 and P13).
- 146) The devices shall be in accordance with the endorsed design standards [condition 106) c)], spaced at appropriate distances apart and sign-posted with the speed limit (15 km/h) and Long-nosed Bandicoot warning/awareness signs.<sup>53</sup>
- 147) Vehicle access to the site is to be managed by an entrance boom gate that only opens when triggered by staff or contractors.
- 148) Barriers delineating the extent of vehicle access with the site are to be provided within 6 months of the commencement date in accordance with Figure 2.1 of the PAS. In accordance with condition 151) c) within 10 years of the commencement date, the barriers on the road below S2, between S2 and A23 and adjacent to A1 must be replaced with a barrier adjacent to A18 (or at a suitable location east of A18).

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<sup>53</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

- 149) There shall be no vehicle access beyond the barriers described in condition 148) except for:
- a) vehicles transporting disabled visitors;
  - b) vehicles driven by representatives of the co-proponents, service providers and contractors;
  - c) visitors and guests being transported by shuttle-bus, people-mover or some other form of low-scale public transport (not large buses or coaches); and
  - d) emergency vehicles.
- 150) Bus and coach access to the site shall be as follows (see also condition 65(b) and 151):
- a) coaches shall not enter the site beyond CP1;
  - b) until CP1 is completed buses may enter the site and use the loop road from A26 to S12 to S5 and to the temporary bus parking area adjoining A26; and
  - c) after CP1 is completed buses shall also not enter the site beyond CP1.

### **Vehicle parking**

151) On-site car parking shall occur as follows:

- a) **CP1** – may provide up to 120 vehicle spaces, constructed in two stages as proposed in the PAS, to be used by day visitors, overnight guests and staff (if necessary);
- b) **CP5** – may provide up to 56 vehicle spaces, constructed in two stages as proposed in the PAS, to be used by staff and overnight guests but no day visitors (including conference or function participants);
- c) **existing administration car park (opposite S1)** – may provide short-stay parking for accommodation check-in on the following basis:
  - € accommodation guest use of this parking area shall be gradually decreased between 5 and 10 years of the commencement date, so that within 7.5 years of the commencement date such usage has decreased by 50% (this excludes taxis, delivery and operations vehicles);
  - € use of this parking area by accommodation guests shall be completely phased out within 10 years of the

commencement date, to comply with the long-term car-free boundaries of the DACMP; and

- ∄ during the above periods the co-proponents shall examine and test alternative check-in parking arrangements, including the option of using the area shown as “Potential Drop Off and Parking” in Illustration 20 of the DACMP;
  - d) **bus and coach parking** – the following arrangements shall apply:
    - ∄ until CP1 is completed buses may only park in the bus parking area adjoining A26, as shown in Figure 2.1 of the PAS;
    - ∄ until CP1 is completed coaches may only drop-off visitors at the entrance to the site and park at an off-site location (if necessary);
    - ∄ once CP1 is completed, buses and coaches may drop off visitors at CP1 and either park in CP1 or outside the site (if necessary); and
    - ∄ once CP1 is completed, there shall be no bus or coach parking elsewhere on the site.
- 152) Overflow parking may be provided:
- a) as part of up to 6 approved special events per year (condition 125); and
  - b) during the physical construction stages for the new car parks (ie. during Stages 1 or 2 of CP1 or CP5). Once a stage is complete, no further overflow parking associated with car park construction may occur until the next stage of construction commences.

Total overflow parking at any one time shall be limited to up to 50 vehicles and shall be entirely restricted to formed road surfaces (ie. not grassed areas) between building S14 and the first road junction immediately south-west of the upper reservoir

- 153) There shall be no vehicle parking outside of the CP1, CP5, administration area car park, or overflow parking, except for short-term parking for service providers, contractors and the like.

### **Car-park design**

- 154) The co-proponents shall ensure that car-parks are designed and constructed in accordance with the following design principles:

- a) designated disabled car parking spaces must be provided on-site in accordance with relevant Australian Standards, the BCA and to achieve compliance with the *Disability Discrimination Act*;
- b) secure parking for at least 10 bicycles, plus parking for motorcycles, shall be provided at CP1 (such parking may also be provided at CP5);
- c) the internal area of car parks shall be generally devoid of any vegetation (with the exception of existing threatened species or communities) that may harbour or provide a foraging resource for fauna (especially Long-nosed Bandicoots);
- d) vegetation (using local native species) shall be planted and maintained to screen CP1 and CP5. The vegetation screens shall allow for the movement of fauna;
- e) car parks shall not be enclosed by fencing that may trap individual fauna i.e gaps of sufficient dimensions to allow passage by bandicoots will be provided between and/or under any barriers<sup>54</sup>;
- f) sufficient low-level lighting shall be provided in the car parks to allow drivers to detect fauna;
- g) the eastern boundary of CP5 shall be defined by fencing that prevents vehicle access and discourages human access to the adjoining area of Eastern Suburbs Banksia Scrub; and
- h) any removal of Eastern Suburbs Banksia Scrub required as part of the construction of CP5 shall be offset by the undertaking of habitat regeneration works on an area elsewhere at North Head up to 20 times the size of the area impacted (i.e approximately 0.3 hectares). Details of the area of ESBS to be affected and the areas proposed for regeneration, including regeneration methods consistent with the Heritage Landscape Master Plan, are to be submitted with the construction works application for CP5.<sup>55</sup>

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<sup>54</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>55</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979



## **Shuttle bus**

155) The co-proponents shall provide a shuttle bus service to transport visitors between the Manly Town Centre and the site (see also condition 65). The shuttle bus shall:

- a) have a minimum capacity of 12 persons per trip;
- b) be operational within 6 months of the commencement date;
- c) provide a minimum of 3 trips to and from the site (total 6 trips) per day on weekends and public holidays during peak periods of visitor activity or as approved by the DEC. Preference is also to be given to operation of the shuttle bus service during periods of peak night visitation and activity for the Long-nosed Bandicoot.<sup>56</sup>

Full details of the shuttle bus operation shall be included in the Access Strategy (condition 118).

## **Visitor monitoring**

### **General**

156) A visitor monitoring program is to be established in accord with Policy AIP 3.2 in the DACMP and submitted for approval as part of the final Access Strategy (condition 118). In addition to the matters specified in AIP 3.2, the program must also make specific provision for the monitoring of:

- a) visitor numbers, capacities and entry details (eg. booked on a tour, accommodation booking, or unbooked day visitor);
- b) mode of access to the site;
- c) visitor profiling (to include age, cultural background, language spoken, geographic origin, disability status);
- d) visitor impacts on the site's values, including both physical impacts (such as measurable damage or wear to fabric, impacts on fauna behaviour, etc) and non-physical impacts (such as amenity); and
- e) measures taken, or proposed to be undertaken, to minimise private vehicle access. This should include the progress or

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<sup>56</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

outcomes of any negotiations with other North Head land managers regarding off-site car-parking.

- 157) Where the visitor monitoring program identifies adverse impacts associated with the activity the co-proponents must, in consultation with the DEC, identify and implement appropriate management responses. These may include, but are not limited to, altering any relevant activity, temporarily ceasing specific activities or ceasing some uses altogether if impacts cannot be adequately addressed.

## **FLORA, FAUNA & MARINE ENVIRONMENT**

### **General**

- 158) The co-proponents shall engage a person(s) trained in basic fauna and flora identification and in possession of the appropriate licences (eg. for fauna handling) to monitor construction activities for the duration of the work. The functions of that person(s) shall include, but are not limited to:
- a) the inspection of work areas every morning prior to work commencing to allow the identification and relocation of any fauna species present (fauna are to be re-located to the nearest area of suitable habitat within the site);<sup>57</sup> and
  - b) the regular inspection of work areas at other times to ensure no inadvertent impacts to flora and fauna are occurring.

The person(s) is to report directly to the Environmental Manager.

- 159) Any fencing or barriers to be provided for active work areas shall not limit the general movement of fauna across the site. However, sites of specific potential risk to fauna (eg. open excavation) shall include measures to prevent fauna access (eg. limited fencing or covers) and/or to allow their egress/escape (eg. earth ramps).
- 160) No hollow-bearing trees or threatened flora are to be removed, although limited lopping or trimming may occur with approval from the DEC. Existing Coral trees in the Wharf Precinct shall be the subject of regular inspection and maintenance by a suitably qualified person to ensure safe access to this area for site visitors. Any areas proposed for vegetation clearance or removal are to be surveyed by a suitably qualified person for the

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<sup>57</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

presence of hollow-bearing trees and threatened flora, which are to be clearly tagged and identified for retention.

- 161) The proposed design and location of any artificial nesting sites or boxes (including for Little Penguins) are to be endorsed by the DEC. Nest boxes are to be designed to limit the potential for use by possums.
- 162) Details of the methods and approaches to be used in meeting the monitoring requirements specified in the conditions of approval for Long-nosed Bandicoots and Little Penguins will be submitted to the DEC for approval prior to monitoring commencing.

## **Long-nosed Bandicoot**

### **General**

- 163) Within 6 months of the commencement date the co-proponents shall update signage along Darley Road and into the Quarantine Station to strengthen warnings to vehicle drivers regarding the presence of Long-nosed Bandicoots and the need for slow and careful driving (see also conditions 145)-146).
- 164) Grassed areas on the site must be kept in good condition. No fertilisers or chemicals should be applied to open grassed areas, except where this is essential to the repair and stabilisation of existing eroded areas and is consistent with the provisions of the approved Heritage Landscape Master Plan (condition 91).
- 165) Within 12 months of the commencement date the co-proponents shall undertake further assessments to refine the mapping of high-use Long-nosed Bandicoot foraging habitat and to identify suitable potential areas and techniques for habitat enhancement, reconstruction and rehabilitation. The outcomes of the assessment should be informed by the monitoring program specified in Schedule 5 and are to be submitted to the DEC for approval and incorporated into the Heritage Landscape Management Plan (condition 91) prior to any habitat works commencing.<sup>58</sup>
- 166) Any works undertaken for the activity that involve the loss of, or damage to, Long-nosed Bandicoot foraging habitat<sup>59</sup> shall be offset by the undertaking of habitat enhancement, reconstruction

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<sup>58</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>59</sup> as defined by Illustration 15 of Volume 1 of the DACMP or the completed revised habitat assessment (condition 165).

or rehabilitation works on an area elsewhere at North Head that is at least ten times the size of the area impacted.<sup>60</sup>

### **Monitoring**

- 167) The co-proponents shall implement the monitoring program detailed in Schedule 5.

### **Adaptive management – foraging habitat**

- 168) If the monitoring of bandicoot activity and use of foraging habitat indicates a statistically significant<sup>61</sup> reduction in bandicoot numbers between the control and non-control areas over two consecutive years, measures will be taken, in consultation with the DEC, to reduce the extent of light, noise and activities at relevant locations. Measures may only be reversed or altered with the approval of the DEC (see also condition 133).<sup>62</sup>

### **Adaptive management – road mortalities**

- 169) The co-proponents shall comply with the adaptive management measures detailed in Schedule 6.
- 169A) The co-proponents shall provide a sign, at the entrance to Sydney Harbour National Park, just after the Parkhill Archway, to indicate the number of Long-nosed Bandicoot road mortalities within the monitored roads described in Schedule 5. The sign shall include, but not be limited to, a short statement regarding the endangered status of the bandicoot population, its estimated population size (within North Head) and the threat that road deaths pose to its continued survival, the total number of road deaths for the previous year and a running tally of the number of deaths for the current year. The tally shall be updated after each confirmed road death as recorded on the mortality register referred to in Schedule 5. The sign shall also include a 24 hour phone number (see also condition 6) to allow members of the public to inform the co-proponents of any mortalities and what to do if an injured bandicoot is found.<sup>63</sup>

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<sup>60</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>61</sup> statistically significant is defined as the 5% probability level

<sup>62</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>63</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979 and a Heritage Council condition of approval, as granted under the Heritage Act 1977.

### **Calculating the background level of adult road mortalities**

- 170) For the first year following the commencement date the background adult road mortality level is set at 10 deaths<sup>64</sup> in 6 consecutive months. The background adult road mortality level is to be recalculated at the end of each consecutive year of mortality monitoring as detailed in Schedule 7.

### **Future measures**

- 171) The co-proponents will provide funding to the DEC to undertake a revised population viability assessment (PVA) for the Long-nosed Bandicoot every 2.5 years from the commencement date.
- 172) Based on the revised PVA, the provisions of any adopted recovery plan for the Long-nosed Bandicoot population and following consultations with the co-proponents, the Minister for the Environment may recommend to the Minister for Infrastructure, Planning and Natural Resources that the trigger thresholds, background adult road mortality levels and/or adaptive management measures be revised. Prior to the Minister for Infrastructure, Planning and Natural Resources agreeing to any significant revised measures, the details of the proposal and the PVA are to be made available for public comment.
- 173) The co-proponents shall ensure that the undertaking of the activity complies with any revised measures specified in condition 172).

## **Little Penguins**

### **General**

- 174) Prior to the opening of the restaurant in Building A6 for public use or the commencement of ferry services to the site (whichever comes first), and following approval of the detailed designs by the DEC, permanent barrier fencing (that maintains access for penguins) shall be provided to actively discourage human access to Little Penguin habitat at<sup>65</sup>:
- a) the northern end of Quarantine Station Beach, in the vicinity of the mean high water mark. The fence shall include

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<sup>64</sup> drawn from the basic scenario of a population of 100 animals with 10% adult mortality every 6 months used in the population viability analysis (Banks 2000) and population census undertaken in 2002 (Banks and Hayward 2002).

<sup>65</sup> incorporates a condition of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

signage to indicate that no access along the rocky foreshores is permitted;

- b) the southern end of the Quarantine Station Beach, in the vicinity of the cliff-line and water's edge adjacent to the concrete slipway (W1/A13a). The fence shall include signage to indicate that no access along the rocky foreshores is permitted; and
- c) at least 1.5 metres from the western edge of the existing drain adjacent to Building A6 (ie. towards the building). Consideration shall be given to the use of dense plantings, rather than a fence made of timber or other materials, in the design of the barrier.

To avoid adverse visual or cultural impacts the fences shall be constructed of suitable materials and to the minimum height and scale necessary to discourage human access. It is not required that the fences be human-proof (eg. cyclone fencing).

- 175) Between sunset and sunrise in the breeding season (July to February inclusive) temporary moveable signage, with appropriate temporary lighting if necessary, shall be provided on Quarantine Beach. The signs are to be located on the beach above the mean high water mark in the approximate vicinity of the intersection of buildings A6 and A7. The signs are to advise visitors that access beyond the signs to the northern part of the beach is not permitted, to minimise potential impacts on wildlife.
- 176) No spotlighting for Little Penguins is to occur from the ferry or from within the site, unless it is being undertaken as part of an approved special interest tour.

### **Monitoring**

- 177) The co-proponents will negotiate with the DEC an annual contribution to assist the on-going implementation of any monitoring programs established as part of the Little Penguin Recovery Plan. The contribution will be adjusted annually to reflect changes in the CPI.
- 178) In the event that any monitoring program under the Little Penguin Recovery Plan ceases to operate during the life of the approval, the co-proponents shall be responsible for developing, implementing and funding a monitoring program that specifically monitors the potential impacts generated by activities within the site.

### **Adaptive management**

- 179) The co-proponents shall comply with the adaptive management measures detailed in Schedule 8.

### **Future measures**

- 180) The co-proponents will provide funding to the DEC to undertake a revised population viability assessment (PVA) for the Little Penguin population every 2.5 years from the commencement date.
- 181) Based on the revised PVA, the provisions of any adopted recovery plan for the Little Penguin population and following consultations with the co-proponents, the Minister for the Environment may recommend to the Minister for Infrastructure, Planning and Natural Resources that the trigger thresholds and/or adaptive management measures be revised. Prior to the Minister for Infrastructure, Planning and Natural Resources agreeing to any significant revised measures, the details of the proposal and the PVA are to be made available for public comment.
- 182) The co-proponents shall ensure that the undertaking of the activity complies with any revised measures specified in condition 181).

### **Marine environment**

#### **General**

- 183) Within 6 months of the commencement date the co-proponents shall commence discussions with the Waterways Authority and NSW Fisheries in relation to measures that could be undertaken to restrict or discourage private boat mooring in the immediate vicinity of the site. Other relevant stakeholders shall also be consulted. As a minimum, options for restricting or discouraging mooring should generally target the “patchy seagrass” area shown in Figure 1 of Appendix F of the EIS. However, if critical habitat is declared for the Little Penguin population the provisions of the critical habitat listing will take precedence over any other measures.

#### **Monitoring**

- 184) The co-proponents shall develop and implement a program to monitor the density, condition and extent of seagrass beds in the wharf area, in consultation with the Waterways Authority. Details of the methods and approaches to be used in monitoring

seagrass beds will be submitted to NSW Fisheries for approval prior to monitoring commencing.<sup>66</sup>

- 185) Implementation of the seagrass monitoring program is to occur prior to commencement of the ferry services to the site. Monitoring must be undertaken by a suitably qualified marine ecologist.<sup>67</sup>

### **Adaptive management**

- 186) If the monitoring of the seagrass beds indicates a significant reduction in the density, extent or condition of the seagrass beds, and NSW Fisheries is satisfied that such decreases are either fully or partially related to the activity, the co-proponents must consult with NSW Fisheries to implement appropriate measures to reduce impacts within a specified timeframe, and to provide habitat compensation at a ratio of 2:1.<sup>68</sup>
- 187) The co-proponents shall ensure that the undertaking of the activity complies with any measures specified in condition 186).

### **Predator and pest control**

- 188) A Predator and Pest Control Plan shall be prepared and implemented for the site. The Plan shall be submitted to the DEC for approval within 2 years of the commencement date. The plan should address relevant provisions of any adopted recovery plans and threat abatement plans and shall:
- a) detail measures for minimising the risk of predator and pest impacts; and
  - b) detail measures for rapidly responding to identified threats, including an emergency shooting strategy.
- 189) Predator and pest control activities shall be undertaken in accordance with the approved plan. Until the plan is prepared and approved the co-proponents shall continue on-going consultation with the DEC regarding predator control measures to be applied.

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<sup>66</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

<sup>67</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

<sup>68</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.



- 190) The co-proponents shall undertake a review of the Predator and Pest Control Plan every five years after the commencement date for the duration of the activity, or earlier if considered necessary by the DEC. The review shall be undertaken in consultation with the DEC and with advice from relevant specialists. On the basis of the review the co-proponents shall, as necessary, prepare a revised plan to be submitted to the DEC for approval.

## **ENVIRONMENTAL MANAGEMENT PLAN**

- 191) An Environmental Management Plan (EMP) shall be prepared by the co-proponents and submitted for approval to the DEC and DIPNR, following a review by the Environmental Manager. Once approved, the co-proponents shall implement the EMP.
- 192) The EMP shall be prepared and approved prior to the commencement of construction works or new operation functions as described in the PAS. Operations already occurring on site prior to the commencement date may continue without an approved EMP, subject to other relevant conditions of this approval having been met. The EMP may be updated and amended with the approval of the DEC to incorporate other strategies, plans and programs required by the conditions of approval.
- 193) The primary function of the EMP is to outline environmental safeguards and procedures to be implemented during the construction and operation stages of the activity. The EMP may also function as an operational control document to guide the implementation of all aspects of the proposal. The EMP shall be prepared in accordance with:
- a) the conditions of this approval;
  - b) all relevant legislation;
  - c) accepted environmental management best practice; and
  - d) shall address all commitments and undertakings made by the co-proponents for environmental management.
- 194) The EMP shall contain, but not be limited to, the matters specified in Schedule 9 and in conditions 197), 199) and 203). Other strategies, plans and programs required by the conditions of approval may be incorporated into the EMP.
- 195) The EMP shall be reviewed and revised in consultation with the DEC as necessary to incorporate revisions to relevant site-wide

strategies, plans and the results of the integrated monitoring program.

## **SOIL**

- 196) Prior to any works commencing in areas of potential contamination the co-proponents must submit to the DEC a preliminary investigation prepared in accordance with the “Managing Land Contamination: Planning Guidelines” (DUAP & EPA 1998). After considering the assessment the DEC may require the co-proponents to undertake a detailed investigation in accordance with the Guidelines and/or undertake any necessary remediation work. Areas of potential contamination include those identified in Figure 13.1 of the EIS, the sites of former buildings P22 and H1, and any other areas identified by the co-proponents during the course of the activity.
- 197) As part of the EMP, the co-proponents shall prepare and implement an erosion and sedimentation control plan to be implemented for all works that involve ground surface disturbance. The plan will be prepared in accordance with the guideline “Managing Urban Stormwater – Soils and Construction” (DoH 1998), but with adaptations as necessary and appropriate for the Quarantine Station site.
- 198) Regular inspections of temporary and permanent erosion and sedimentation control devices shall be undertaken during the undertaking of any works involving ground surface disturbance.

## **NOISE**

- 199) As part of the EMP, the co-proponents shall prepare and implement a noise management plan for both the construction and operation phases of the activity. The plan should include, but not be limited to:
- a) standards to be met, consistent with relevant EPA guidelines;
  - b) noise mitigation measures, including educational signage for visitors entering and exiting the site;
  - c) regular monitoring of both construction and operational activities. This is to include:
    - ⊄ noise generated from on-site activities, measured both within the site and off-site
    - ⊄ road traffic noise during peak periods of vehicle movements to and from the site, especially in the vicinity of residential areas along Darley Road and Manly Hospital; and

- d) adaptive management measures.
- 200) Noise levels are to be managed and monitored in accordance with the approved noise management plan. If relevant noise standards are exceeded the co-proponents shall take all reasonable steps to ensure that measures are put in place to meet the standards:
- a) for construction works, within 1 week of the exceedance being identified; and
  - b) for operational activities, within 6 months of the exceedance being identified.
- 201) Amplified music or noise on the site shall be managed on the following basis:
- a) no amplified music shall occur in outdoor areas on the site;
  - b) other amplified noise in outdoor areas shall be limited to that necessary for essential interpretive purposes, such as guided tours;
  - c) amplified indoor music or noise shall not exceed the LAeq noise level of 50 dB(A) as measured up to 20 metres away from the edge of the building in which the music or noise is being generated. This level may be amended via the noise management plan, or a variation to that plan, with the approval of the DEC.
- 202) Even if relevant industry and technical standards for noise management are met, the DEC may direct the co-proponents to take appropriate measures to reduce or alter noise levels, or to implement measures earlier than the time-frames specified in condition 200), after considering monitoring information for the Long-nosed Bandicoot and Little Penguin populations. The co-proponents shall comply with any such directions.

## **WASTE**

- 203) As part of the EMP, the co-proponents shall prepare and implement a waste management plan to address the handling, stockpiling and disposal of wastes and construction materials during all phases of the activity. The plan shall include, but not be limited to, the following:
- a) procedures to ensure that demolition and construction materials are stockpiled clear of environmentally sensitive areas;

- b) waste avoidance and reduction measures, including strategies for recycling and re-use of waste materials;
  - c) procedures for the removal and disposal of waste at an appropriately licensed facility, including asbestos material;
  - d) on-site education and signage to promote and encourage “no feeding” rules for wildlife and appropriate waste disposal procedures; and
  - e) procedures for regular litter inspection and collection.
- 204) All handling, stockpiling and disposal of wastes and construction materials shall be undertaken in accordance with the waste management plan and all necessary licenses, permits or other approvals must be obtained by the co-proponents.

<b>SITE MANAGEMENT</b>
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### **Emergency and evacuation plan**

- 205) Prior to the commencement date the co-proponents shall submit an emergency and evacuation plan for the site to the DEC for approval. The plan will be prepared in consultation with the NSW Ambulance Service, NSW Police and NSW Fire Brigade and shall address, but not be limited to:
- a) emergency and/or evacuation procedures for a range of incidents, including spillages, boat collisions, fire, bomb threats, power blackout, personal injury, disturbance to human burial sites, etc;
  - b) interim site fire safety measures to be provided until the upgrade of the fire hydrant system has been completed (condition 211);
  - c) safety and emergency signage;
  - d) an emergency alarm system;
  - e) the location of evacuation points and an evacuation procedure;
  - f) regular testing of the system;
  - g) emergency equipment and appropriate storage locations;
  - h) staff training; and
  - i) emergency contact details for relevant staff.

Once approved, the co-proponents shall implement the plan.

- 206) All staff shall be made aware of the plan and its provisions and be trained in the operation of emergency equipment. Records of

staff training will be kept by the co-proponents and included as part of the annual environmental report (see condition 221).

- 207) The plan is to be displayed at prominent locations within the site and is to clearly highlight the recommended actions and 24 hour telephone contacts for emergency situations.
- 208) The co-proponents shall undertake a review of the plan every five years after the commencement date for the duration of the activity or earlier if considered necessary by the DEC. The review shall be prepared in consultation with the agencies specified in condition 205). On the basis of the review the co-proponents shall, as necessary, prepare a revised Emergency and Evacuation Plan to be submitted to the DEC for approval.

### **Fire safety**

- 209) The co-proponents shall prepare a fire safety schedule for each building on the site. The schedule shall be submitted to DEC for approval prior to occupation or use of a building on the site for the activity. The schedule shall be prepared in accordance with the NPWS Construction Assessment & Approvals Procedure and the following specific requirements:
  - a) be prepared by a Fire Protection Consultant with at least 5 years experience;
  - b) identify fire safety services to be installed (including type of service, location and other specifications) to meet BCA standards (or an acceptable alternative);
  - c) identify interim fire safety measures that could be implemented to allow the use of buildings in the short term; and
  - d) provide a statement outlining the potential impact of the work on the heritage significance of the building, and proposed mitigative measures.
- 210) No building on the site shall be occupied or used after the commencement date until such time as fire safety measures have been implemented and an interim or final Fire Safety Certificate issued in accordance with the NPWS Construction Assessment and Approvals Procedure. This includes any purposes that were being undertaken prior to the commencement date. In the event of any inconsistency this condition shall prevail over any other condition of approval (with the exception of condition 50).
- 211) The co-proponents shall also undertake the following fire safety measures:

- a) all buildings are to be brought up to BCA standards for fire safety (or an acceptable alternative). This shall occur in stages to match the staging plan for works, as amended by condition 31);
- b) an upgrade of the fire hydrant system to meet NSW Fire Brigade standards shall be completed within 5 years of the commencement date. In the meantime, the co-proponents shall ensure that the fire measures detailed in the emergency and evacuation plan (condition 205) are in place and functioning;
- c) an annual fire safety statement of the site buildings, prepared in accordance with the NPWS Construction Assessment & Approvals Procedure, shall be submitted for DEC approval; and
- d) the co-proponents shall comply with the terms of any fire safety order issued by or on behalf of the DEC.

#### **Bushfire management plan**

- 212) The co-proponents are to liaise with the DEC and any other relevant authorities to ensure that the provisions of any adopted bushfire management plans applicable to the site are implemented.

<b>HOURS OF OPERATION</b>
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- 213) All construction activities, including entry and departure of heavy vehicles, shall be restricted to the following hours:
  - a) **during daylight savings (ie. summer)** - 7am – 6pm Monday to Friday, 8am-1pm Saturday;
  - b) **at other times (ie. winter)** - 7am – 5pm Monday to Friday, 8am-1pm Saturday; and
  - c) **Sundays or public holidays** - no work is to be undertaken, except for emergency works or minor, low noise activities such as painting.
- 214) The hours of operation for specific uses shall be as follows:
  - a) **restaurant in A6** – closed to the public by 11.00 pm;
  - b) **conferences and functions** – no organised visitor activity past 11.00 pm; and

- c) **night tours** – the 1918 Night Experience sound and light show to conclude by 11.00 pm. The Late Ghost Tour to conclude by 12.00 midnight.
- 215) Service providers and contractor vehicles may only access and exit the site between 7.00 am and 12.00 pm (mid-day). This does not apply to vehicles involved in the undertaking of construction or conservation works.

## MONITORING AND AUDITING PROGRAM

### Monitoring

- 216) Within twelve months of the commencement date an integrated monitoring program for the activity shall be prepared by the co-proponents and submitted for approval of DEC and DIPNR. The program shall be prepared in consultation with the Heritage Council and other relevant authorities. Implementation of the program shall commence no later than three months from the date of approval of the program.

The primary aim of the program shall be to monitor over time the effects of the activity on the significance of the Quarantine Station site and immediately adjoining areas (such as Quarantine Beach and the Wharf), and to identify the need to develop and implement strategies to respond to any adverse impacts identified. An integrated monitoring program shall be implemented for the life of the activity and shall address:

- a) the feature or issue to be monitored;
  - b) how the monitoring will be undertaken (eg. methods) and who will undertake this work;
  - c) frequency of monitoring; and
  - d) a process for reviewing the results of monitoring and identifying measures to be implemented to respond to impacts, and/or to meet the requirements of the approval.
- 217) The program shall include, but is not limited to, the following matters:
- a) visitor access information – see conditions 135) and 156);
  - b) the interpretive program, and whether it is achieving its goals (to include consideration of quality of visitor experience, visitor understanding and presentation performance) (condition 100);

- c) Aboriginal heritage – including the condition of physical sites (condition 70);
  - d) non-Aboriginal heritage – including the condition of buildings and structures, landscape features, moveable heritage and conservation works progress (conditions 78) and 85);
  - e) flora and fauna - including general monitoring during construction and operation phases, as well as specific strategies for monitoring threatened species, including the Little Penguin and the Long-nosed Bandicoot (conditions 167) and 177)-178);
  - f) seagrasses (condition 184);
  - g) soil and erosion (conditions 197)-198);
  - h) noise (condition 199);
  - i) stormwater management, including water quality (condition 104)
  - j) infrastructure – consumption and capacity (water, sewer, gas, etc – condition 105);
  - k) waste management (condition 203); and
  - l) staff and contractor training – including induction programs (conditions 64) and 65) and emergency training (condition 206)
- 218) On the basis of the outcomes of the integrated monitoring program, the co-proponents shall, subject to DEC and any other approvals required as specified in the conditions of approval, use the adaptive management system to adjust the undertaking of the activity to conserve the significance of the site.
- 219) As part of the annual environmental report (condition 221) and comprehensive audit (condition 226), the co-proponents shall produce a monitoring report outlining results from the integrated monitoring program. The report shall:
- a) include an analysis of monitoring results and trends collected over time; and
  - b) identify measures taken or proposed to be undertaken to respond to any adverse or unexpected impacts identified.
- 220) The co-proponents shall undertake a regular review of the overall integrated monitoring program concurrent with or prior to the on-going comprehensive audits of the activity (condition 228). The review shall be undertaken in consultation with the relevant



authorities. On the basis of the review the co-proponents shall, as necessary, prepare a revised program to be submitted to the DEC and DIPNR for approval.

### **Annual environmental report**

- 221) An annual environmental report for the activity shall be prepared by the co-proponents and submitted to the DEC, DIPNR, NSW Heritage Council, Waterways Authority, NSW Fisheries and the Quarantine Station Community Committee for comment. In reviewing the annual environmental report these organisations are to specifically consider issues associated with visitor impacts arising from the activity.<sup>69</sup>
- 222) In submitting the report in accordance with condition 221), the co-proponents shall identify a timeframe for the receipt of comments. As a minimum, the organisations listed in condition 221) shall have 4 weeks to provide comment, starting from the date on which they receive the report. An extension of the timeframe for comments may be agreed between the relevant organisation(s) and the co-proponents.
- 223) The co-proponents shall submit the first environmental report approximately 12 months after the commencement date, although this may be adjusted if agreed by the DEC to match the end of the calendar or financial years or to coincide with the staging plan (condition 31), and at annual intervals thereafter. No annual report is required in the year that a comprehensive audit is due (condition 228).
- 224) The annual environmental report shall:
- a) state how the co-proponents have complied with relevant approval conditions;
  - b) include the outcomes of the annual monitoring report (condition 219);
  - c) state any measures taken or proposed by the co-proponents to respond to issues arising from:
    - ∉ the integrated monitoring program
    - ∉ consultations with the community; and
  - d) state any recommendations from the co-proponents regarding the undertaking of the activity, if considered necessary.

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<sup>69</sup> incorporates a condition of concurrence, as granted under the Fisheries Management Act 1994.

- 225) The co-proponents shall take all reasonable steps to comply with any requirements of the DEC, DIPNR, NSW Heritage Council, NSW Fisheries and Waterways Authority in regard to the outcomes of the annual environmental report. The co-proponents shall also consider the recommendations and comments of the Quarantine Station Community Committee and provide a response to the Committee.

## **Audit**

- 226) A comprehensive audit of the activity shall be prepared by a suitably qualified, experienced and independent person in accordance with the timeframes specified in condition 228), for the duration of the activity. The audit process shall be consistent with ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing, or updated versions of these.
- 227) The co-proponents shall meet the cost of the comprehensive audit. The appointment of the auditor shall be approved by the DEC and DIPNR.
- 228) Preparation of the first comprehensive audit report shall coincide with the conclusion of stage 2 of the staging plan (condition 31). Subsequent comprehensive audit reports shall then be undertaken every 5 years after the commencement date, although this may be adjusted if agreed by the DEC to link with the timing of the annual environmental reports (condition 223).
- 229) The audit shall address, but not be limited to:
- a) the environmental performance of the activity and its effects on the environment;
  - b) compliance by the co-proponents with the approval conditions;
  - c) the adequacy of the integrated monitoring program and EMP;
  - d) the adequacy of measures taken or proposed by the co-proponents to respond to issues arising from:
    - ∅ the integrated monitoring program; and
    - ∅ consultations with the community;
  - e) consideration of the key impact predictions made in the EIS and PAS using information from the integrated monitoring program;
  - f) the adequacy and functioning of the information management and GIS system (once in place – conditions 66)-69); and

- g) any other matters considered necessary by the DEC, Heritage Council, Waterways Authority or DIPNR.

The audit report may recommend measures or actions to improve the environmental performance of the activity and/or its environmental management and monitoring systems, if these are considered necessary.

- 230) A draft comprehensive audit report shall be submitted by the auditor to the co-proponents, DEC, DIPNR, NSW Heritage Council, Waterways Authority, NSW Fisheries and the Quarantine Station Community Committee for comment.
- 231) In submitting the report in accordance with condition 230), the auditor shall identify a timeframe for the receipt of comments. As a minimum, the organisations listed in condition 230) shall have 6 weeks to provide comment, starting from the date on which they receive the report. An extension of the timeframe for comments may be agreed between the relevant organisation(s) and the auditor.
- 232) The auditor shall consider comments received from the organisations listed in condition 230) and prepare and submit a final audit report to the DEC and DIPNR. Based on the outcomes of the final audit report, and after considering any comments provided by the organisations listed in condition 230), the DEC and/or DIPNR may require the co-proponents to address certain matters identified in the audit. The co-proponents shall comply with any such requirements.
- 233) If, after considering the outcomes of the comprehensive audit, the DEC, DIPNR and/or the co-proponents consider that significant revisions to the undertaking of the activity or mitigative measures are required to protect the significance of the site, any such proposed revisions will be submitted to the Minister for Infrastructure, Planning and Natural Resources. Prior to the Minister for Infrastructure, Planning and Natural Resources agreeing to any significant revisions, the details of the proposal are to be made available for public comment. The co-proponents shall comply with any directions of the Minister.

## SCHEDULE 2

<b>ELEMENTS OF ACTIVITY NOT APPROVED (CONDITION 17)</b>
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The following aspects of the activity are not approved as part of this application.

### Wharf Precinct

Location	Element refused and additional comments
Concrete stormwater pipe at Quarantine Beach.	⊄ The proposed alterations are not approved as there is insufficient information in the current application to assess the potential environmental impacts.
Open area between A7, A8 and A11-12	⊄ <b>Power poles</b> - the removal of overhead power poles is not approved, except where they are to be replaced with new poles of a similar size and materials (DACMP CPP 16.8.2).
A12	⊄ The interior wall and ceilings of A12 are not to be re-painted, but may be sealed to prevent deterioration.
First cemetery	⊄ The placement of symbolic surface markers is not approved. Interpretation of the cemetery should not overtly herald its presence to people moving through the site (Landscape Data Sheet L01, L01a).

## Administration Precinct

Location	Element refused and additional comments
Building S2	<p>✗ The extension to the timber verandah is not approved as this would adversely alter the external configuration of the building, which makes a strong aesthetic contribution to the centre and core areas of the site (DACMP Building Data Sheet S02).</p> <p>✗ However, if the preparation of detailed design plans for the building indicates that alterations to the verandah are necessary to accommodate disabled access, then these may occur subject to approval of the design and construction plans.</p> <p>Refer also Schedule 3.</p>
Building S4	<p>✗ Changes to the bathroom fitout are not approved as it is a rare surviving fitout of an early bathroom on the site. Any adaptation of the bathroom must retain the fabric specified in DACMP Building Data Sheet S04.</p> <p>✗ Reconstruction of the verandah based on research may occur.</p>
Building S10	<p>✗ Demolition of the verandah structure is not approved, however removal of the AC infills may occur, consistent with DACMP Building Data Sheet S10.</p>
Building S12	<p>✗ The conversion of the laundry to a bathroom is not approved as it is a largely intact and rare example on the site (DACMP Building Data Sheet S12).</p>

## First and Second Class Precincts

Location	Element refused and additional comments
Eastern perimeter of road	✗ <b>Power poles</b> - the removal of

Location	Element refused and additional comments
through First and Second Class	overhead power poles is not approved, except where they are to be replaced with new poles of a similar size and materials (DACMP CPP 16.8.2).
Gravel path from P12 to top of the Funicular stairway	€ The proposal gravel path (as shown in Figure 2.1 of the PAS) is not approved, as this is an area of potential foraging habitat for Long-nosed Bandicoots and in accordance with DACMP Policy GCP13.3.29.

### SCHEDULE 3

<b>Aspects of the proposal approved subject to modification or detailed design (condition 18)</b>
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The following aspects of the proposal are approved, subject to achievement of the specific outcomes and objectives shown in the table and:

- ⌘ compliance with the Quarantine Station Archaeological Management Plan (AMP);
- ⌘ any necessary approvals being obtained from the NSW Heritage Council; and
- ⌘ compliance with the NPWS Construction Assessment and Approvals Procedure.

#### Cross-precinct issues

Approved	Specific outcomes/objectives
Various buildings: methods for cooling and heating rooms	<ul style="list-style-type: none"><li>⌘ Rooms to be used for accommodation, function and conference related purposes, as well as archival or records storage, may include appropriate contemporary technologies for cooling and heating.</li><li>⌘ Subject to meeting the specific requirements below, the introduction of mechanical air conditioning shall only be considered for approval in the following areas:</li></ul>

Approved	Specific outcomes/objectives
	<ul style="list-style-type: none"> <li>∉ A2;</li> <li>∉ S2;</li> <li>∉ meeting rooms in P10, P11 and P12; and</li> <li>∉ in rooms to be used for archival or records storage.</li> <li>∉ Subject to meeting the specific requirements below, ceiling fans may be installed in other buildings, with preference to fans mounted over the ceiling light to minimise fabric impact.</li> <li>∉ Details of any proposed cooling and heating systems shall be included in the construction works application for the particular building. The application must demonstrate that the proposed system:</li> <li>∉ will have as little adverse impact on significant fabric as practicable;</li> <li>∉ will not have significant adverse visual impacts; and</li> <li>∉ is clearly capable of being removed, and fabric reinstated, at some future point consistent with the principle of reversibility.</li> </ul>
Road repairs	<ul style="list-style-type: none"> <li>∉ No timber kerbs are to be installed as this is contrary to the DACMP policy GCP 13.3.43, which states that new retaining walls (this includes kerbs) should be sympathetic to neighbouring examples in terms of scale, material and texture.</li> </ul>



Approved	Specific outcomes/objectives
Lower Reservoir – water reservoirs/tanks	<p>∉ Full details of the proposed design and layout of the water reservoirs and associated infrastructure are to be submitted to the DEC. This shall include evidence of consultation with Sydney Water (condition 16).</p>
Excavation and installation of second water network for fire purposes	<p>∉ Relevant assessments are to be undertaken in accordance with the Archaeological Management Plan.</p>
Symbolic fences	<p>∉ Location and design options for the symbolic fences are to be addressed in the outdoor visitor infrastructure plan (condition 112). Documentary evidence of earlier fences and/or boundary markers must be considered.</p>
Artificial foraging habitat for Long-nosed Bandicoots – below P1, A28-29, P3, P5, P7 and near CP5	<p>∉ Habitat reconstruction and/or rehabilitation shall only occur in accordance with the revised habitat assessment (condition 165).</p>

## Wharf Precinct

Approved	Specific outcomes/objectives
Removal or modification of the existing fence along the beachfront.	<p>Any modification or replacement of the existing fence shall occur in accordance with the following criteria:</p> <ul style="list-style-type: none"> <li>∉ the design and materials will reflect the historic separation of uses and the need to provide adequate security (especially at night), but may allow for improved views and reduced visual impacts;</li> <li>∉ limited openings in the fence may be provided, but must be capable of being closed for security reasons. Suitable areas include near the wharf and behind building A7;</li> <li>∉ there shall be no openings at the northern end of the beach in the immediate vicinity of the outdoor eating area at A6, with the exception of openings to assist the movement of Little Penguins. Any existing openings in this area are to remain closed and are not to be available for general public access to the beach;</li> <li>∉ any openings shall be of the minimum width necessary, but may be capable of being expanded in the event of an emergency;</li> <li>∉ any openings are to include measures to protect the dunes and grassed areas and to prevent erosion; and</li> <li>∉ temporary signage is to be provided on the beach during the Little Penguin breeding season, as detailed in condition 175).</li> </ul>

Approved	Specific outcomes/objectives
Waterfront forecourt	<p>∉ Design of sculptures to be approved by DEC.</p>
A14-17 – Visitor Centre	<p>∉ The theatrettes are to follow the general layout and direction shown in Drawing No. L-A14-17 of the PAS, but options shall be investigated to provide for a greater retention of luggage racks.</p>
Open area between A7, A8 and A11-12	<p>∉ A5 symbolic presentation - removal of the bitumen to uncover footings is to occur in accordance with the provisions of the AMP.</p>

Approved	Specific outcomes/objectives
A6 – restaurant and outdoor seating	<p><u>Indoors</u></p> <ul style="list-style-type: none"> <li>∄ The timber platform may be relocated to another area within A6 if necessary.</li> <li>∄ The construction works application shall specifically address the following matters:</li> <li>∄ provide details of access and serving arrangements for sit-down and take-away food provision;</li> <li>∄ details of the proposed mezzanine, which shall be generally in accordance with the preliminary details provided by the co-proponents on 14 October 2002, and designed to minimise the mezzanine floor area (eg. by efficient table layouts);</li> <li>∄ demonstrate that the proposal will have as little adverse impact on significant fabric as practicable;</li> <li>∄ demonstrate that the exhaust flue will have as little adverse visual impact on the external appearance of the building as practicable; and</li> <li>∄ demonstrate that the finishes, equipment and services required for the restaurant operation are clearly capable of being removed, and fabric reinstated, at some future point consistent with the principle of reversibility.</li> </ul>

Approved	Specific outcomes/objectives
	<p><u>Outdoors</u></p> <ul style="list-style-type: none"> <li>⌘ The boundary of the outdoor eating area must correspond with the beachside building line of A6.</li> <li>⌘ The existing coral trees in the vicinity of the outdoor eating area shall be regularly inspected and maintained in accordance with condition 160).</li> <li>⌘ A shade structure/s over the outdoor eating area may be provided, but shall be limited to that part of the outdoor eating area that is obscured by Building A6 when viewed from the head of the wharf. Any such structure/s shall be plain coloured and shall not contain any form of advertising or written/graphic material.</li> <li>⌘ Individual table umbrellas are permitted in the outdoor eating area where there is no shade structure, subject to the same line of sight conditions referred to above.</li> <li>⌘ Details of the proposed grease trap and waste management area between A6 and A7 are to be provided, including access provisions for the removal of waste. The extent of the external fenced area shall be limited to the minimum practicable.</li> </ul>
A6 – sewer outlet	<ul style="list-style-type: none"> <li>⌘ The final route is to be determined following completion of assessments in accordance with the AMP and following approval of the Infrastructure Control Plan (condition 105).</li> </ul>

Approved	Specific outcomes/objectives
Construction of stairway over the former funicular railway	<ul style="list-style-type: none"> <li>∄ The final location of the route is to be determined following the outcomes of an archaeological assessment in accordance with the AMP.</li> <li>∄ The stairway width shall be kept to the minimum necessary to comply with BCA requirements.</li> <li>∄ No viewing or landing platforms shall be constructed, except where these may be necessary to achieve compliance with the BCA.</li> <li>∄ Preference shall be given to a metal construction, rather than timber, with the physical footprint of the structure kept to the minimum necessary to comply with the BCA.</li> <li>∄ The structure shall be of a colour that allows it to blend with the surrounding landscape.</li> <li>∄ The entire route of the former Funicular shall be identified and interpreted.</li> <li>∄ Lopping, trimming or removal of vegetation adjoining the stairway shall not occur, except where this is necessary as part of the stairway construction process or for on-going public safety. Vegetation shall not be removed for the sole purpose of improving views from the stairway.</li> </ul>
Bitumen pathway to hospital	<ul style="list-style-type: none"> <li>∄ Options for managing public access to the inscriptions, including re-alignment of the walkway, are to be considered in development of the Inscriptions Management Plan (condition 95).</li> </ul>

### Third Class Precinct

Approved	Specific outcomes/objectives
Second Cemetery	<p>€ Options for re-instatement of headstones are to be addressed in the Heritage Landscape Management Plan (condition 91). Any proposal to re-instate headstones must be based on archival evidence regarding the original location of headstones. Where this is not available, the manner of reinstatement must clearly demonstrate this lost knowledge.</p> <p>€ Any evidence of graves, including clay banking from 1881, shall be retained as per DACMP Landscape Data Sheet L01 and L01a.</p>
Building S9	<p>€ Research into the construction history of the building is required prior to undertaking any works on this building. The results of this research should form the basis for developing an approach to the on-going use and maintenance of this building.</p>

Approved	Specific outcomes/objectives
Building P14-16	<ul style="list-style-type: none"> <li>∉ Detailed design work is to be submitted for proposed alterations to the shower and toilet blocks to address the requirements of the DACMP and relevant public health and educational facility requirements.</li> <li>∉ If the public health and educational facility requirements cannot be met without significant departure from the provisions of the DACMP, then the alterations shall not proceed and alternative bathroom and shower arrangements must be made.</li> <li>∉ Alternate options to carpeting within this building (eg. rugs) consistent with DACMP requirements for floors must be submitted.</li> </ul>
Building P28-29	<ul style="list-style-type: none"> <li>∉ Retention of as much significant fabric as possible in accordance with DACMP Building Data Sheet P28-29.</li> </ul>



## Hospital & Isolation Precinct

Approved	Specific outcomes/objectives
H6	<p>€ Details of the approach to rectifying any problems associated with rising damp are to be submitted.</p>
H7-11 – accommodation	<p>€ Details of options for the retention of the 1914-1916 fabric and at least some of the 1958 fabric, in accordance with DACMP requirements, are to be submitted.</p>
H15	<p>€ The addition of a free standing timber platform above the ground alongside H15 is approved, subject to the submission of design details that demonstrate this would not significantly alter the form of the building, its appearance, starkness in the landscape or its basic amenity (DACMP Building Data Sheet H15).</p> <p>€ The timber platform shall be designed and constructed to be reversible and should be constructed close to the ground to minimise the need for a balustrade.</p>

## Administration Precinct

Approved	Specific outcomes/objectives
S2	<p>Adaptation must retain as much significant fabric as possible as specified in DACMP Building Data Sheet S02. Particular attention shall be given to:</p> <ul style="list-style-type: none"> <li>∄ retention of as much of the partition layout as practicable;</li> <li>∄ assess options for providing efficient guest access to the building, including swapping the location of the reception and guest lounge rooms as shown in Drawing No. L-S2 of the draft Site Master Plan (EIS Vol. 3);</li> <li>∄ assess options for disabled access to the building; and</li> <li>∄ removal of the lattice screen to the eastern verandah.</li> </ul> <p>Refer also Schedule 2.</p>
S4	<ul style="list-style-type: none"> <li>∄ Reconstruction of the verandah shall occur following completion of research regarding an appropriate design.</li> </ul>
A28-29 – visitor shelter	<ul style="list-style-type: none"> <li>∄ Details of the proposed mural are to be submitted to the DEC for approval.</li> <li>∄ Provision for the retention of as much original fabric as possible shall be made in finalising detailed design plans for this building in accordance with DACMP requirements.</li> <li>∄ A sub-floor archaeological assessment is to be completed.</li> </ul>

Approved	Specific outcomes/objectives
A20	<ul style="list-style-type: none"> <li>Details of the proposed sampling approach to conservation of fabric, as per DACMP Building Data Sheet A20, are to be submitted.</li> </ul>
A26 – visitor shelter	<ul style="list-style-type: none"> <li>Details of the proposed mural are to be submitted to the DEC.</li> </ul>
A2	<ul style="list-style-type: none"> <li>Final design and material details for the entry area being submitted in accordance with the approved Heritage Landscape Master Plan (condition 91).</li> <li>Adaptation must retain as much fabric as possible as specified in DACMP Building Data Sheet A02.</li> </ul>

#### First and Second Class Precincts

Approved	Specific outcomes/objectives
Eastern perimeter of road through First and Second Class	<ul style="list-style-type: none"> <li><b>Service trench</b> - assessments must be completed in accordance with the AMP.</li> </ul>
P1, P2	<ul style="list-style-type: none"> <li>Complete removal of all wall hot water tanks is not appropriate. Details of a sampling strategy must be submitted.</li> </ul>
P1, P2 and P9	<ul style="list-style-type: none"> <li>Corridors in these buildings shall be retained as a functioning part of the building. That is, they will be available for use by guests. Internal doors from rooms into these corridors must not be permanently sealed.</li> </ul>
Re-instatement of badminton base, croquet lawn and tennis court	<ul style="list-style-type: none"> <li>Options for re-instatement are to be addressed in the Heritage Landscape Management Plan (condition 91).</li> </ul>

Approved	Specific outcomes/objectives
Building P11, P12	<p>€ Consistent with DACMP Building Data Sheets P11 and P12 the reconstruction of former stairs on the western elevation of buildings and the uncovering of fireplaces must be addressed in the construction works application for these buildings.</p>

## SCHEDULE 4

<b>Works associated with the wharf (condition 42)</b>
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1. The following information shall be provided with the application:
  - a) four copies of detailed dimensioned working drawings, all signed by the co-proponents (or their delegate), complying with the "Guidelines for Waterside Structures" fully and clearly describing all the proposed works and their components;
  - b) a condition survey report that includes
    - € appropriate photographs
    - € a detailed engineering commentary on the structure integrity of appropriate elements of the existing wharf
    - € appropriate sketches or drawings;
  - c) a diver's inspection and pile inspection report;
  - d) calculations to verify that the existing wharf is structurally sufficient to carry the proposed loads;
  - e) correspondence from the operator that the wharf will be satisfactory for its intended use; and
  - f) details of appropriate lighting to the wharf deck.
2. The following specifications shall be complied with:
  - a) any parts of the existing wharf that require removal must be completely removed from Waterways Authority land. All piles and piers involved are to be completely withdrawn from the bed of the Spring Cove and not cut off. In accordance with condition 41), where such works require excavation or disturbance of the seabed a separate application and approval under Part 5 of the *Environmental Planning and Assessment Act 1979* will be required; and
  - b) all work is to be done in such a way that no construction or demolition debris etc falls, flows or is carried to the bed or waters of the Spring Cove and any such material entering the Cove is to be removed immediately;
3. Prior to commencement of use of the wharf, the following works must be undertaken to the satisfaction of the Waterways Authority:
  - a) installation of lifebuoys and ladders on the wharf;

- b) the top ½ metre of the mooring/fender piles shall be painted and kept painted white: all other elements of the facility shall be left unpainted or, if painting is required, be painted in a mid grey colour with matt finish; and
- c) installation of signage indicating that the wharf is for use by the public ferry service only and is not available for private access or mooring.

## SCHEDULE 5<sup>70</sup>

### Long-nosed Bandicoots – monitoring requirements (condition 167)

The co-proponents shall undertake the following monitoring program.

1. The co-proponents will negotiate with the DEC an annual contribution to assist the on-going implementation of any monitoring programs established as part of the Long-nosed Bandicoot Recovery Plan (once adopted). The contribution will be adjusted annually to reflect changes in the CPI.
2. The following specific elements shall also be monitored by the co-proponents:

Element	Timing	Methods
Bandicoot activity and use of foraging habitat <sup>71</sup>	To commence within one month of the commencement date	Monitoring will be undertaken using spotlight transects and surveys of Long-nosed Bandicoot diggings on a three monthly basis and will compare areas generally unaffected by the proposal (control areas) with areas potentially affected by the proposal (either by construction activities or visitors).
Any enhanced, reconstructed or rehabilitated habitat established in accordance with condition 165)	To commence within one month of the works being completed	see above, but also to include identification of what use bandicoots are making of the enhanced habitat areas, i.e foraging, shelter, nesting.
Deaths of Long-nosed bandicoots attributable to vehicles.  Road-deaths are taken to include any bandicoot remains identified	To begin within one month of the commencement date and to occur for the duration of the approval.	€ road-death monitoring shall be conducted by an appropriately trained and licensed person on a daily basis, within two hours of sunrise and is to be undertaken by driving set routes at slow speeds.

<sup>70</sup> incorporates conditions of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>71</sup> initially targeting areas shown in Illustration 15 of Volume 1 of the DACMP, but later to target potential areas identified in the revised habitat assessment – see condition 165)

Element	Timing	Methods
on or next to roads. <sup>72</sup>		
		<p>€ monitored roads are to include all public roads within Sydney Harbour National Park i.e. Blue Fish Road, Collins Beach Road, North Head Scenic Drive from the Parkhill Archway to the North Head look out, and the internal roads with the Quarantine Station.</p> <p>€ road deaths are to be recorded on a publicly accessible mortality register, noting basic morphological details (age, sex and condition), the date, the name of the recorder, microchip number of the animal (if present) and the location plotted using a GIS-based map (see also conditions 169A and 66). For the purposes of road mortality monitoring an adult Long-nosed Bandicoot is defined as: female – 450 grams or heavier; male – heavier than 650 grams<sup>73</sup>.</p> <p>€ opportunities are to exist for the public to provide notification of road-deaths that can be verified by a dead specimen or adequate photographic evidence.</p> <p>€ where the cause of</p>

<sup>72</sup> Scott, Hume and Dickman (1999)

<sup>73</sup> Banks and Hayward (2002)



Element	Timing	Methods
		<p>death or the age of the individual cannot be determined at the time of notification, the remains are to be collected and stored and a necroscopy undertaken as soon as possible. Costs of the verification process shall be met by the co-proponents.</p>

## SCHEDULE 6<sup>74</sup>

### Long-nosed Bandicoots: adaptive management – road mortalities (condition 169)

#### € Boundary of road mortality monitoring

For the purposes of applying the following trigger mechanisms, Long-nosed Bandicoot road mortalities are those adult mortalities recorded in accordance with the methods specified in Schedule 5 but only for North Head Scenic Drive between the Parkhill Archway to the Quarantine Station entrance and the internal roads of the Quarantine Station.

#### € Trigger 1

If the level of private vehicle traffic generated by the proposal increases 10% above the projected levels<sup>75</sup> measures shall be introduced to reduce traffic volumes to below these levels and as close as possible to the original projections. Trigger 1 will apply regardless of whether the following triggers have been reached and vica versa (eg. Trigger 2 could occur first, with Trigger 1 occurring at a later stage).

#### € Trigger 2

If in any six-month period<sup>76</sup> there are 2 recorded adult road mortalities above the background level then the co-proponents must implement the following measures, unless otherwise agreed by the DEC:

- a) seek approval from the relevant authorities (including Council if necessary) to install additional traffic calming devices and signage at appropriate locations within or outside of the site as informed by the mortality register (Schedule 5) and GIS (Condition 66);
- b) investigate the feasibility of providing road-side fencing to create defined road-crossing points for Long-nosed Bandicoots, particularly using the existing traffic calming devices; and

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<sup>74</sup> incorporates conditions of concurrence, as granted by the Minister for the Environment under the EP&A Act 1979

<sup>75</sup> including the total number of private vehicles visiting the site and vehicle levels at key periods shown in Table 20.5 of the EIS

<sup>76</sup> calculated monthly on a rolling basis, ie. Jan to June, February to July, March to August, etc.

- c) reduce the frequency and alter the timing of functions, conferences and activities (eg. scheduling finishing times of activities to minimise traffic leaving or arriving at the site after sunset).

With the exception of any additional traffic calming devices, fencing and signage, the measures may be reversed with approval from the DEC if adult road deaths return to less than 2 above the background level for six consecutive months.

### ☒ **Trigger 3**

If the measures in Trigger 2 above have been applied and adult road mortalities continue to exceed 2 deaths above the background level for a further six months then the co-proponents shall also implement the following measures, unless otherwise agreed by the DEC:

- a) implement a sunset-to-sunrise curfew for overnight guest and day visitor private vehicles arriving at or leaving the site (including CP1 if at least half the mortalities have occurred outside of the site). During the curfew:
  - ☒ buses and coaches may continue to access the site in accordance with conditions 150) and 151);
  - ☒ the shuttle bus may continue to run from CPI to areas within the site; and
  - ☒ staff may continue to access and park in CP5 at all times;
- b) provide a night shuttle bus service between Manly and the site (or some other means of public transport); and
- c) implement measures identified in the assessment of habitat reconstruction and rehabilitation options (condition 165) that have not already been undertaken.

The curfew must be implemented within 2 weeks of the six month mortality information becoming available. The curfew may be lifted and the shuttle bus service concluded with approval from the DEC once adult road mortalities return to less than 2 above the background level for six consecutive months.

### ☒ **Trigger 4**

If the measures in Trigger 3 above have been applied and adult road mortalities continue to exceed 2 deaths above the background level for

a further six months then the co-proponents shall also implement the following measures, unless otherwise agreed by the DEC:

- a) implement a total day and night ban on all guest and visitor private vehicles entering the site (including CP1 if at least half the mortalities have occurred outside the site). During the ban:
  - € buses and coaches may continue to access the site in accordance with conditions 150) and 151);
  - € the shuttle bus may continue to run from CPI to areas within the site; and
  - € if at least half the mortalities have occurred inside the site, staff may only park in CP1 (with no restrictions on timing) otherwise staff may continue to access and park in CP5 at all times; and
- b) provide a day and night shuttle bus service between Manly and the site (or some other means of public transport).

The ban must be implemented within 4 weeks of the six month mortality information becoming available. The ban and associated restrictions may be lifted with approval from the DEC once adult road mortalities return to less than 2 above the background level for 12 consecutive months.

#### € **Trigger 5 – potentially catastrophic events**

If there are 10 adult road mortalities or more in any one month period or 15 or more in any consecutive three-month period, then all the measures identified in Triggers 2, 3 and 4 shall be implemented, unless otherwise agreed by the DEC. Where these are inconsistent, the more restrictive of the measures is to apply).

The measures must be implemented within 2 weeks of the mortality information becoming available. The measures may only be reversed with approval from the DEC if adult road mortalities are less than the background level for 12 consecutive months.

## SCHEDULE 7

### Long-nosed Bandicoots - calculating the background adult road mortality level (condition 170)

- ⌘ The following process shall be followed to enable the existing non-comprehensive monitoring information to be phased out and replaced by the new monitoring information. However, if the provisions of conditions 172) and 173) are enacted then they shall prevail over the following process.

#### Process

- ⌘ The revised background adult road mortality level is to be established by calculating a weighted average of the pre-commencement adult road mortalities (ie. the existing 10 per six months) with post-commencement recorded adult road mortalities, on the following basis:
  - ⌘ for the second year after the commencement date, the background level = 75% of 10 deaths plus 25% of the average six-monthly post-approval deaths (ie. adult road mortalities recorded during the first year after the commencement date);
  - ⌘ for the third year after the commencement date, the background level = 50% of 10 deaths plus 50% of the average six monthly post-approval deaths (ie. adult road mortalities recorded in the two years after the commencement date);
  - ⌘ for the fourth year after the commencement date, the background level = 25% of 10 deaths plus 75% of the average six monthly post-approval deaths (ie. adult road mortalities recorded in the three years after the commencement date); and
  - ⌘ for the fifth year after the commencement date the background level = the average six monthly post-approval deaths as recorded during the four years since the commencement date. This background level will be applied for the remainder of the life of the activity.

## SCHEDULE 8

<b>Little Penguins: adaptive management (condition 179)</b>
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€ **Trigger 1**

€ 1) If monitoring indicates that the number of active Little Penguin breeding burrows between Cannae Point and the southern end of Store Beach has significantly decreased<sup>77</sup> over two successive breeding seasons<sup>78</sup> (July to February inclusive), and the DEC is satisfied that such decreases are either fully or partially related to the activity, the DEC may direct the co-proponents to implement appropriate measures. The measures may include, but not be limited to:

- a) a reduction in the number of lights and their intensity in the Wharf Precinct, particularly in the vicinity of the restaurant in A6;
- b) the provision of acoustic barriers in the vicinity of the restaurant at night, especially the outdoor eating area;
- c) cessation of outdoor dining in the vicinity of the restaurant in A6 at night during the breeding season (or all year round);
- d) restrictions on ferry movements, such as a set period either side of sunset or no movements between sunset and sunrise; and
- e) the provision of alternative public transport to the site during times when ferry movements are restricted.

If further on-going monitoring indicates that the number of active Little Penguin breeding burrows in this area continues to decrease over subsequent breeding seasons, the DEC may direct the co-proponents to implement further measures.

€ 2) The co-proponents shall comply with any directions issued by the DEC in accordance with clause 1. Any measures required to be implemented may be reversed or altered with the approval of the DEC if monitoring indicates that the number of active Little Penguin breeding burrows for the population has increased over two successive breeding seasons.

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<sup>77</sup> statistically significant is defined as the 5% probability level

<sup>78</sup> assessed on an annual basis for the preceding two breeding seasons as part of the annual environmental audit - see condition 221)

- € 3) If Little Penguin deaths occur in the vicinity of the site as a result of matters reasonably beyond the control of the co-proponents (such as predator attacks, oil spills, etc), the number of active breeding burrows considered for the purposes of clause 1 may be adjusted in consultation with the DEC to account for such impacts (eg. to account for the likely impact of predator related deaths on lowering the number of active burrows).

€

## € **Trigger 2 – potentially catastrophic events**

- € 1) If information becomes available that indicates a significant reduction<sup>79</sup> in the size of the Little Penguin population or a significant change to the behaviour of the population within a period of less than two successive breeding seasons, and the DEC is satisfied that the activity is likely to have contributed to that decline or change, the DEC may direct the co-proponents to implement appropriate measures. These may include, but are not limited to, the measures specified in Trigger 1.
- € 2) The co-proponents shall comply with any directions issued by the DEC under clause 1. Any measures required to be implemented may be reversed or altered with the approval of the DEC.

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<sup>79</sup> statistically significant is defined as the 5% probability level

## SCHEDULE 9

<b>Environmental Management Plan (condition 191)</b>
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The EMP shall include the following matters:

- a) a clear statement of the objectives of the EMP;
- b) a brief description of the management and the planning framework;
- c) identification of the statutory and other obligations which the co-proponents must comply with during the undertaking of the activity;
- d) definition of the roles and responsibilities regarding implementation of the EMP and its various components;
- e) contact protocols outlining procedures and any notifications to be given before works commence, together with contact details for the relevant project manager;
- f) induction and training arrangements for contractors and staff;
- g) community liaison arrangements;
- h) mapping of key environmental features and proposed environmental safeguards, to include:
  - ∅ topographic features
  - ∅ vegetation cover and threatened species locations / habitat
  - ∅ special items or areas of environmental or heritage sensitivity
  - ∅ suitable locations for construction infrastructure (eg. machinery and material storage), access ways for vehicles and proposed active work sites
  - ∅ location of sedimentation and erosion controls.

The mapped information should be capable of being incorporated into the GIS system for the site once this is approved and functioning (condition 66).

- i) specific objectives and strategies for the main environmental management elements. This should, at a minimum, identify what the issue is, compliance and best practice requirements, the action required, who will undertake the action and when. The main elements must include, but are not limited to:



- ⊄ historic heritage
- ⊄ Aboriginal heritage
- ⊄ visitor management, access and traffic
- ⊄ flora and fauna
- ⊄ water quality and hydrological regimes
- ⊄ noise and air quality management
- ⊄ geotechnical issues
- ⊄ erosion and sedimentation
- ⊄ contamination
- ⊄ waste management
- ⊄ landscaping and rehabilitation
- ⊄ weed and predator controls
- ⊄ fire management
- ⊄ visual issues
- ⊄ hazards and risks, including measures to ensure public safety during the undertaking of construction and renovation activities (such as temporary fencing)
- ⊄ energy and resource use and recycling.
- ⊄ monitoring, inspection and reporting arrangements, including performance criteria, protocols (eg: frequency and location) and procedures to follow.

## DEFINITIONS

**Adaptation** means modifying a place or item to suit compatible uses.

**Annual fire safety statement** means a statement prepared in accordance with the requirements of the NPWS Construction Assessment and Approvals Procedure.

**Application for construction works** means a document prepared in accordance with the requirements of the NPWS Construction Assessment and Approvals Procedure and the conditions of this approval.

**Building Code of Australia** means that Code that is in force on the date an application for construction works is made.

**Bush regeneration program** is a program for bush regeneration works, prepared by a suitably qualified person with skills and experience in bush regeneration that addresses, at a minimum, the following:

- ≠ key elements of the site, including vegetation types, flora/fauna, threatened species and habitat features, landuse history, fire history, etc;
- ≠ key management issues, based on a site assessment. This should include, but not be limited to, an assessment of site disturbance, resilience, site condition and weed mapping (species, density, location);
- ≠ management objectives;
- ≠ management strategies, including a description of methods;
- ≠ a prioritised schedule of works;
- ≠ performance measures; and
- ≠ a monitoring program.

**Compliance Certificate** means a certificate issued in accordance with the requirements of the NPWS Construction Assessment and Approvals Procedure.

**Conservation** means all the processes of looking after a place so as to retain its cultural significance. It includes maintenance and may according to circumstance include preservation, restoration, reconstruction and adaptation and may commonly be a combination of more than one of these.

**Co-proponents** means the NSW Minister for the Environment and Mawland Hotel Management Pty Ltd, or any other future lessee approved by the Minister for the Environment.

**DEC**<sup>80</sup> means the Director-General of the Department of Environment and Conservation, or a delegated officer, unless otherwise specified.

**DIPNR**<sup>81</sup> means the Director-General of the Department of Infrastructure, Planning and Natural Resources, or a delegated officer, unless otherwise specified.

**Fire Protection Consultant** means an accredited specialist in fire safety with adequate experience and professional indemnity insurance.

**Fire safety certificate** means a certificate prepared in accordance with the requirements of the NPWS Construction Assessment and Approvals Procedure.

**Fire Safety Order** means an order directing the co-proponents to:

- a) carry out works to a standard to rectify any deficiencies with respect to fire safety; and
- b) prepare plans and specifications of the work considered necessary to comply with the Fire Safety Order and to submit these for approval prior to the carrying out of that work.

**Heritage Council** means the NSW Heritage Council established under the *Heritage Act 1977*, or a delegated authority or person.

**Maintenance** means the continuous protective care of the fabric, contents and setting of a place and is to be distinguished from repair.

**Minister for Infrastructure, Planning and Natural Resources**<sup>82</sup> means the Minister administering the *Environmental Planning and Assessment Act 1979* (as amended).

**Minor maintenance repairs** means, for the purposes of this activity, repairs to or involving the replacement of missing or deteriorated fabric to match the existing fabric in all respects.

**Minor maintenance works** means minor works that provide for the continuous protective care of building, structure or landscape element

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<sup>80</sup> the NPWS is now a part of the DEC.

<sup>81</sup> formerly known as Planning NSW or the Department of Urban Affairs and Planning

<sup>82</sup> formerly the Minister for Planning or Minister for Urban Affairs and Planning

without causing any damage or change to the existing fabric. For the purposes of this activity, it covers the following works:

- ∄ cleaning generally, as well as cleaning out gutters, drainage systems and other water storage and drainage areas;
- ∄ re-securing loose elements of roofs, doors, windows, timber work and decorative features in an original manner;
- ∄ re-securing fences;
- ∄ minor servicing of equipment, such as components with moveable parts requiring lubrication;
- ∄ re-wiring of existing electrical services, basic plumbing repairs (eg. replacement of washers / valves);
- ∄ landscape maintenance such as weeding, lawn-mowing and watering necessary for the continued growth of existing plants. It does not include alterations to layout, structures, plant species or other significant features; and
- ∄ emergency tree safety surgery by a qualified horticulturist or tree surgeon.

**Moveable heritage** are those items defined as moveable heritage in the North Head Quarantine Station Archaeological Management Plan. That is:

- ∄ original furnishings in storage, on display or still in use;
- ∄ laundry and kitchen equipment;
- ∄ boiler and steam engine equipment and accessories;
- ∄ medical equipment in the mortuary;
- ∄ relocated cemetery headstones;
- ∄ the sample collections of historic equipment retained in storage or on display;
- ∄ collections of archaeological material and building fabric samples retained for reference (this includes samples collected prior to the activity approval and items removed for sampling purposes and/or during adaptation works as part of the approved activity);
- ∄ signage and building fabric stocks, such as quantities of asbestos cement guttering and piping; and

- € written records of the NPWS period from 1984, which are held in the resources centre.

**NSW Fisheries** means the Director of NSW Fisheries, or a delegated officer, unless otherwise specified.

**NPWS** means the National Parks and Wildlife Service, which is now part of the DEC. Operating Certificate means a certificate that certifies that:

- a) all industry codes, standards and guidelines relevant to the operation will be met (eg. food handling, liquor services, spa and health facility, educational facility, occupational health and safety requirements, etc);
- b) all other approvals and licences from relevant authorities required under any other legislation have been granted; and
- c) a schedule for regular review and performance monitoring has been prepared.

**Polluting** is defined in accordance with the *Protection of the Environment Operations Act 1997*.

**Preservation** means maintaining the fabric of a place or item in its existing state and retarding deterioration.

**Reconstruction** means returning a place or item as nearly as possible to a known earlier state by removing accretions or by assembling existing components without the introduction of new material.

**Repair** involves restoration or reconstruction.

**Resource Collection** includes, but is not limited to, the following items: files; reports; film (photographs, slides, video footage, etc); maps; and audio tapes.

**Site** means the area within the proposed lease boundary as shown in Figure 2.1 of the PAS.

**Site plans or site-wide plans include:**

- € Aboriginal Heritage Management Plan (condition 70);
- € Moveable Heritage and Resources Plan (condition 85);
- € Heritage Landscape Master Plan (condition 91);
- € Inscriptions Management Plan (condition 95);
- € Internal Fitout Plan (condition 99);

- ⊄ Interpretation Plan (condition 100);
- ⊄ Infrastructure Control Plan (condition 105);
- ⊄ AC sampling strategy (condition 111);
- ⊄ Outdoor Visitor Infrastructure Plan (condition 112);
- ⊄ Security Plan (condition 116);
- ⊄ Access Strategy (condition 118);
- ⊄ Predator and Pest Control Plan(condition 188);
- ⊄ Environment Management Plan (condition 191); and
- ⊄ Emergency and Evacuation Plan (condition 205).

**Suitably qualified person** is a person who holds qualifications relevant to the matter at hand and:

- a) has sufficient experience and expertise in the area relevant to the subject matter; and
- b) if there is a professional association or body in the area relevant to the subject matter, is a member of that association or body; and
- c) otherwise satisfies any specific requirements prescribed by the DEC in respect to the subject matter.

**Sunrise** and **Sunset** mean the times published in a newspaper circulating in the Sydney metropolitan area.