

Australian Federal Police

**Australian Institute of Police
Management, North Head**

OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN PREFERRED PROJECT SCHEME



**Report for Brewster Hjorth Architects by
GONDWANA CONSULTING**

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Contents

	Page
1. Introduction and Purpose	1
1.1 Introduction	1
1.2 The AIPM Site	1
1.3 Aim of the OEMP	1
2. Environmental Management Framework	3
2.1 Statutory Requirements	3
2.2 Organisational Structure and Responsibilities	4
3. Envisaged Operation of the Facility	5
4. Environmental Management Programme	7
4.1 EP01 – Environmental Management Procedures	9
4.2 EP02 – Flora and Fauna	13
4.3 EP03 – Heritage Buildings and Sites	35
4.4 EP04 – Hazardous Materials	41
4.5 EP05 – Air Emissions	45
4.6 EP06 – Water Quality and Stormwater	47
4.7 EP07 – Erosion and Sedimentation	51
4.8 EP08 – Noise Impacts	53
4.9 EP09 – Resources and Energy Use	55
4.10 EP10 – Waste Management	57
4.11 EP11 – Traffic and Parking	61
4.12 EP12 – Visual Impacts	65
5. Glossary of Terms	67
6. Bibliography	69

1 Introduction and Purpose

1.1 Introduction

This Operational Environmental Management Plan (OEMP) has been prepared by Gondwana Consulting Pty Ltd, on behalf of Brewster Hjorth Architects, to manage potential environmental impacts associated with the operation of the redeveloped facility for the Australian Institute of Police Management at North Head.

The site's proposed redevelopment, on which this OEMP has been based, is as set out in the Preferred Project Scheme prepared by Brewster Hjorth Architects dated 4 November 2008 as shown in Appendix A.

This OEMP has been prepared prior to the site's redevelopment, and is based both on the Preferred Project Scheme as well as discussions with senior AIPM staff regarding the operation of the facility at present and as anticipated after redevelopment. AIPM staff consulted did not expect major changes to the facility's operations, apart from an increase in course participants/capacity, following the redevelopment.

1.2 The AIPM Site

For the purposes of this OEMP, the areas to which this OEMP applies will be referred to as "the site".

The site is located on a 1.7 hectare parcel of land accommodating the Australian Institute of Police Management (AIPM) located on the north-west corner of North Head on the southern side of Spring Cove. The site consists of land and all proposed facilities and associated infrastructure at the Australian Institute of Police Management, as shown in the Preferred Project Scheme (see Appendix A). The site is accessed via Collins Beach Road, North Head and is bordered on three sides by the Sydney Harbour National Park, with the northern side fronting Sydney Harbour (Spring Cove).

Within the context of North Head, the site is considered to have cultural, indigenous landscape and natural heritage values. The AIPM site itself contains a number of buildings and other features considered to have historic heritage significance as well as being associated with endangered populations of the Little Penguin and Long-nosed Bandicoot (listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* as well as the *NSW Threatened Species Conservation Act 1995*).

1.3 Aim of the OEMP

The purpose of this OEMP is to set out the performance objectives, actions and processes to be followed during operation of the redeveloped AIPM facility to minimise the environmental impacts potentially associated with facility's operation and use. It identifies the procedures, actions and responsibilities that will apply to staff, contractors and students/guests during the facility's operation. It provides directions for the AIPM in developing, implementing and maintaining effective management systems for the environmental aspects of the site's

operations. The OEMP also documents environmental protection infrastructure and controls required to provide long-term protection for the site's natural and cultural heritage, environmental and other values – including managing the off-site effects of the facility's operations.

The OEMP includes monitoring, reporting, auditing and review provisions to ensure that the effectiveness of the environmental management and protection measures identified is regularly assessed and that the OEMP itself remains relevant to the facility's activities. Corrective actions are identified for those instances where environmental management standards are not achieved or where unforeseen or emergency circumstances may arise.

Similar to the Construction Environmental Management Plan the OEMP is structured according to the primary environmental issues and performance areas associated with the facility's operation.

2 Environmental Management Framework

2.1 Statutory Requirements

The AIPM site is located on NSW Crown Land and the proposed development is declared a Major Project subject to the assessment and approval instruments under Part 3A of the *Environment Planning and Assessment Act 1979* (EP&A Act). Concurrently with the assessment of the proposal under Part 3A, the Commonwealth Department of Environment, Water, Heritage and the Arts (DEWHA) have declared the AIPM redevelopment project as a controlled action and agreed that it will be subject to a “one-off accredited assessment” under the Bilateral Agreement with NSW, resulting in the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EP&BC Act) being assessed under the NSW planning and approvals process.

The AFP aims to comply with all State and Local Government environmental legislation and requirements where practical to the extent that they do not conflict with Commonwealth legislative obligations.

The AFP and its consultants are dedicated to ensuring that the facility’s operations are carried out in a responsible manner and align with principles of good environmental management practices.

2.1.1 Legislative and Other Requirements

The Commonwealth *Environment Protection Biodiversity Conservation Act 1999* is the key environmental legislation for reference at the site. The following list of NSW legislation is provided as a guide for site activities.

Legislation:

NSW

- ▶ *Contaminated Land Act 1997*
- ▶ *Dangerous Goods Act 1975*
- ▶ *Environmental Planning and Assessment Act 1979*
- ▶ *Heritage Act 1977*
- ▶ *Local Government Act 1993*
- ▶ *Noxious Weeds Act 1999*
- ▶ *Ozone Protection Act 1989*
- ▶ *Occupational Health and Safety Act 2000*
- ▶ *Pesticides Act 1999*
- ▶ *Waste Avoidance and Resource Recovery Act 2001*

Regulations:

- ▶ *Protection of the Environment Operations (General) Regulation 1998*

- ▶ *Protection of the Environment Operations (Noise Control) Regulation 2000*
- ▶ *Protection of the Environment Operations (Waste) Regulation 1996*
- ▶ *Ozone Protection Regulation 1987*

2.2 Organisational Structure and Responsibilities

Following redevelopment of the facility and handback of the site from the construction contractor to the AFP, the overall responsibility for environmental compliance will again revert to the AFP and AIPM.

The AIPM will therefore be responsible for the operation and ongoing management of the facility, including all aspects of its environmental performance.

Under the facility's present organisational structure, the Hospitality and General Services Manager (HGSM) will be the focal point, and have principal operational accountability, for all environmental matters within the redeveloped facility. The HGSM will ensure that all other AIPM staff as required, as well as contractors and service providers receive appropriate inductions and information (including training if appropriate) and that each individual is aware of their environmental responsibility.

Should the AIPM organisational structure change during the life of this OEMP, as is likely, one (or more) positions will be nominated in the new structure as having operational accountability for environmental matters within the facility and take over the roles allotted to the HGSM in Section 4 of this OEMP.

3 Envisaged Operation of the Facility

The AIPM facility will continue essentially in its present role, in terms of the type and scope of activities undertaken and the functioning and operation of the site, after the proposed redevelopment. The site will continue to provide leadership and training programmes, principally as residential courses, for both Australian and international police forces and other government agencies.

Redevelopment of the site will increase the number of accommodation units to 54, from the present 30, principally in two new residential accommodation blocks. The redevelopment will also include new administration and academic offices, a new 20-seat classroom and refurbishment of existing buildings for teaching, library, dining, senior common room and relaxation uses. A total of 34 carparking spaces, including 2 accessible parking spaces, will be provided on-site. Details of the Preferred Project Scheme are included in Appendix A.

Residential courses typically run seven days, Monday to Friday, with the majority of courses typically extending over a two to three week period. As the facility predominantly caters for police forces from around Australia and the Pacific the majority of students arrive by taxis or public transport or arranged group transport. Students mostly remain on-site within the facility for the entire duration of a course. Day conferences, seminars, training course and other activities also occur at the facility, occasionally overlapping with arrivals and departures for longer courses.

In the order of 40 staff, including contractors, work on-site.

Courses are fully catered and the redeveloped facility will include a kitchen, with associated cold store, general store, and dining room and bar area. The facility is serviced by a variety of deliveries made by different types of commercial vehicles, ranging from Small Rigid Vehicles (SRV) to Heavy Rigid Vehicles (HRV) as the largest vehicles servicing the site. The types and frequencies of deliveries varies, but for the redeveloped facility is expected to be less than 10 daily vehicle/truck movements and less than 20 weekly vehicle/truck movements. Garbage is also removed, via compactor trucks, twice per week.

The facility is connected to mains power and water supplies. Sewerage is connected to an existing pumping station in the site's north-west corner from where it is pumped into the wider Sydney Water sewerage system. The pumping station has an overflow storage capacity of 65,000 litres, approximating 2 days output from the redeveloped facility, in the event of a breakdown in the pumps, macerators or other failure.

Stormwater from the redeveloped facility will be discharged to the harbour, via three existing and one new discharge points. Two of the stormwater systems, draining carpark areas with greater risk of contaminants, will be fitted with "Humeceptors" to capture suspended solids, petroleum hydrocarbons and other waterborne contaminants. Rainwater from the roofs of the buildings of the Axial Hospital Group, and the new accommodation units and classroom in the facility's west, will be collected and re-used for toilet flushing.

Housekeeping laundry from the facility will continue to be taken off site by a contract laundry service, with heavy-duty washing machines on-site for use by students/guests. No boilers, generators or gross smoke/emission sources will be on-site. Grounds maintenance will generally be undertaken by landscape gardening contractors, with continued involvement of the DECC (NPWS) in on-ground vegetation management measures in the Little Penguin foreshore nesting/breeding area.

The existing facility was assessed for hazardous materials in 2005 with asbestos, lead-based paint, PCB light fittings, and nickel/cadmium batteries noted as being present. These hazards

will also be present in the redeveloped facility (and will be managed as set out in this OEMP, specific sub-plans, and the AIPM's operating and safety procedures).

4 Environmental Management Programme

The following environmental management procedures apply to the environmental issues relevant to the redeveloped facility's operation. They have been developed for the routine or day-to-day operation of then redeveloped facility. The procedures aim to provide criteria and indicators to measure the facility's environmental performance, as well as mitigation controls to reduce potential impacts.

4.1 EP01 – Environmental Management Procedures

- Objectives**
- ▶ Responsible environmental management of the site to protect and enhance its natural and cultural heritage values during the facility's routine operation.
 - ▶ Carry out regular audits and inspections of the facility's operation and its environmental impacts/performance.
 - ▶ Minimise non-conformances and outstanding corrective or remedial actions.
 - ▶ Provide open communication and consultation with the DECC (NPWS) and other agencies as well as AIPM employees and the general public.
 - ▶ Ensure that all AIPM staff, contractors and others working on-site, as well as students/guests, are aware of the site's natural and cultural heritage values and their environmental responsibility.
 - ▶ No adverse environmental impacts resulting from any incidents or emergencies on site.
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- Performance Measures**
- ▶ The facility's environmental management proceeds within the parameters of this OEMP and environmental effects of the facility's day-to-day operations appropriately managed/minimised, and non-conformances are addressed in accordance with the guidelines identified and within timelines specified.
 - ▶ All required records are complete and up-to-date.
 - ▶ The AIPM senior management team is familiar with the OEMP and its provisions, and up-to-date with the Plan's implementation/enforcement.
 - ▶ Emergencies are managed in accordance with the site emergency response plan.
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- Training and Awareness**
- Mitigation Measures**
- ▶ All AIPM personnel should be trained to carry out their designated roles and duties relating to the implementation OEMP.
 - ▶ Where specific tasks or duties require the personnel to be licensed or approved AIPM will provide appropriate training or time for licences or approvals to be obtained. A register of training certificates and Contractor or other staff approved for specific tasks will be maintained.
 - ▶ All long-term contractors/service providers will be inducted prior to commencing work on site. The induction will include the site's natural/cultural heritage and other environmental values, operating constraints and protocols in relation to environmental protection, environmental reporting and incident response procedures, this OEMP and its core content, and other environmental awareness and management issues (generally and specific to their areas of activity). This induction will extend to external suppliers and
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deliveries to the facility wherever possible, especially those likely to have a repeated or continuous presence on-site. A register of induction participants will be maintained by the HGSM.

- Welcome and orientation information provided to students/guests, both on-site (in rooms) and prior to their arrival, will provide summary information on the site's natural/cultural heritage and other environmental values, their responsibilities and required behaviours in relation to environmental protection, environmental reporting, and incident response procedures.

Communication and Consultation

- Internal communication will occur through the AIPM's normal administrative, work group, meetings, and other operational procedures.
- The Hospitality and General Services Manager (HGSM) will be the focal point, and have principal operational accountability, for all environmental matters within the facility.
- Environmental issues will be a standing agenda item on AIPM senior management team meetings. A performance report, against the requirements and procedures of this OEMP, will be an agenda item at an AIPM senior management team meeting at no more than 18 month intervals.
- Environmental issues will be discussed – as/when required - at normal daily, weekly and monthly work group meetings.
- Consultation and communication with external bodies including government agencies and other affected stakeholders will be undertaken as required. This will primarily be undertaken by the HGSM.

Audits and Inspections

- An internal audit of the facility's operations, and associated environmental effects, will be used to verify that the provisions of this OEMP are being adequately complied with or implemented. The HGSM will conduct an internal site audit across all aspects of the facility's operations and the requirements of this OEMP at least annually, and the findings documented and reported to the AIPM Senior Management Team.
- The HGSM will also conduct spot-checks, inspections and other performance monitoring and assessment as set out elsewhere in this OEMP to ensure that environmental management requirements are addressed and that environmental objectives are met during the facility's day-to-day operations. The date and outcomes of these inspections/checks will be noted, including any issues/non-conformances and corrective/remedial actions warranted/directed.
- Together the HGSM's inspections, checks and annual audit will provide a documented record of the cumulative and ongoing review of the environmental aspects associated with the facility's activities/operation, the identification of any non-

conformances or issues, and the corrective/remedial actions instigated.

- ▶ The AIPM will engage an independent environmental auditor to undertake an external environmental audit of the facility's day-to-day operations and associated environmental effects at no more than 2 years after the redeveloped facility recommences full-time operation, and thereafter at no more than 5 year intervals.

Non-conformance and Corrective Action

- ▶ If a non-conformance with this OEMP, or other unforeseen priority environmental issue is identified, the HGSM will arrange for appropriate measures to ensure that the non-conformance is recorded and corrective action implemented. Environmental issues, non-conformances and corrective actions will be recorded in the Environmental Management Register to be maintained by the HGSM. The HGSM will also maintain an Environmental Complaints Register, for external complaints regarding the facility's environmental performance. Other records will be kept as specified in the more detailed sections of this OEMP.
- ▶ The HGSM will maintain photo monitoring points at key locations across the site - using those locations as first established by the redevelopment contractor, and supplemented by other where appropriate - to maintain a record the facility and its operations. Photographs will be taken every 6 months or more frequently if/when necessary.

Emergency and Incident Management

- ▶ In the event of an emergency the facility's emergency procedures take precedent. The environmental implications will be assessed and managed only when the emergency has been contained and it is safe to access the site.
- ▶ If an incident takes place that has environmental implications, an incident reporting will be completed, including implementation of any corrective actions.

Monitoring / Auditing / Reporting

- ▶ Training and Induction Register.
- ▶ Formal consultation and communication records.
- ▶ Records of spot-checks, inspections and other OEMP performance monitoring and assessments.
- ▶ Annual internal site audits completed and presented to an AIPM Senior Management Team meeting.
- ▶ Independent Environmental Audits.
- ▶ Environmental Management Register.
- ▶ Environmental Complaints Register.
- ▶ Incident Report Forms.
- ▶ Little Penguin and Long-nosed Bandicoot monitoring, activity and management records – refer EP02.
- ▶ Waste generation and disposal records – refer EP10.
- ▶ Photo monitoring points at key locations across the site (as

above).

Corrective Action

- ▶ This OEMP will be subject to a complete review 2 years after its commencement (taken to be full-time operation of the redeveloped facility) to ensure that its provisions, written prior to the facility's redevelopment and operation, accurately reflect the reality of the facility's operation and associated environmental issues.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.2 EP02 – Flora and Fauna

Little Penguin (*Eudyptula minor*)

Objectives	<ul style="list-style-type: none">▶ To minimise any impacts of the facility's operation on the Little Penguin colony, particularly during breeding and moulting periods.▶ To protect and manage the Little Penguin foreshore nesting/breeding area to maintain its habitat value, and sympathetically manage any other areas of the site important to the species.▶ To ensure continued use of the area by Little Penguins, at levels comparable to previously observed population ranges.
Performance Measures	<ul style="list-style-type: none">▶ No reduction in the numbers of Little Penguins using the site, outside the range of previously observed population and breeding variability.▶ No death of Little Penguin adults or chicks, or abandoned nests, attributable to the facility's operation.
Mitigation Measures and Actions	<ul style="list-style-type: none">▶ Although no part of the facility is declared as critical habitat for the Little Penguin (under the NSW <i>Threatened Species Conservation Act 1995</i>) the AIPM will, wherever practical, continue to manage the area north from the existing low wall at the edge of the northern grassed area (and extending down the rocky vegetated cliff and foreshore to the High Water Mark at the site boundary) in recognition of its importance as a Little Penguin nesting and breeding area. The AIPM will generally only undertake essential management/maintenance works in this area. The AIPM will continue to work with the DECC (NPWS) in the management of this area and the population of this significant species within the facility - including seeking DECC (NPWS) services in weed control contracts, on-going population monitoring, the provision of management advice, and responding to any wildlife care incidents.▶ Inductions for all staff will include information on the Little Penguin colony and the foreshore nesting/breeding area, legal protection, access limitations/protocols, and Little Penguin protection and management measures to be observed (including appropriate people/agencies and contact details for incidents involving Little Penguins).▶ Welcome and orientation information provided to students/guests, and induction and/or contract materials for long-term contractors/service providers, will designate the Little Penguin foreshore nesting/breeding area as an off-limits environmentally sensitive zone – but will not identify the Little Penguin or the nesting/breeding area specifically (in order not to draw attention to it).▶ Access to the Little Penguin foreshore nesting/breeding area will, except in emergencies, generally be limited to those AIPM personnel, and specified contractors/service providers

(such as landscape and grounds maintenance contractors), having specific written approval from the HGSM. The HGSM will liaise with the DECC (NPWS) regarding the appropriate types, as well as levels and frequency, of activities suitable in this area. Appropriate awareness and environmental protection training will be provided to those approved to enter and work in the Little Penguin nesting/breeding area.

- ▶ The AIPM will continue to participate in the co-operative Little Penguin population monitoring and management programme at North Head, and membership of the DECC Little Penguin Recovery Team. The AIPM will co-operate with DECC (NPWS) in the implementation of the Little Penguin Recovery Plan, where relevant, and will permit the DECC (NPWS) to access the facility for Little Penguin monitoring and other species conservation/management tasks.
 - ▶ Little Penguins will only be handled by persons trained in the handling of the Penguins, as approved by the DECC (NPWS). Local "Penguin Wardens" may also be considered for these roles, if appropriate.
 - ▶ The southern (upper) edge of the Little Penguin foreshore nesting/breeding area (as a minimum along the line of the existing low wall, and extending west past the known active Penguin breeding burrow near the sewage pumping station) - or the upper (southern) edge of the grassed foreshore Bandicoot foraging area (as below) - will be signposted as an environmentally sensitive zone with access limited to approved personnel (except in emergencies). Similar signage will be also installed/maintained at discrete locations on the foreshore/tidal rock shelf at the eastern and north-western borders of the site to deter members of the public from accessing the foreshore nesting/breeding area from along the foreshore (these signs will be located so as not to draw attention to the area).
 - ▶ Any activity/works (such as stormwater outlet cleaning or re-armouring) in areas of foreshore nesting/breeding area, or in the vicinity of any known active breeding burrows above the cliffline (such as the burrow at present, 2008, near the sewage pumping station), will only be undertaken after consultation with the DECC (NPWS) regarding any measures recommended to minimise any potential impacts from these activities. Such work would only be done in a manner generating the minimum possible disturbance/impacts, as well as being undertaken outside of the moulting season (from approximately February to the end of April) and preferably also outside of the breeding season (July to February). Routine maintenance works will be programmed outside these periods as far as practical.
 - ▶ Vegetation management within the Little Penguin foreshore nesting/breeding area will be subject to special guidelines, and be principally carried out by the DECC (NPWS) - refer below.
 - ▶ The area above (south) of the Little Penguin foreshore nesting/breeding area will be maintained as a well-grassed area to assist in filtering surface water flows from the main areas of the facility before they reach the nesting/breeding
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area (as well as being an important Long-nosed Bandicoot foraging area, as below).

- ▶ Any night or security lighting will be directed away from the Little Penguin nesting/breeding area, as far as possible. Any lighting essential in this area will be provided with suitable hoods or glare-foils to reduce light spill across the Penguin nesting/breeding area.
- ▶ Any security personnel, including contractors, will be suitably inducted prior to commencing work on site - with particular reference to the Little Penguin nesting/breeding area and the requirements/behaviour of this species. Patrol routes and operating procedures for any security personnel may be modified to minimise disturbance to Little Penguins. Dogs will not be permitted on-site as part of any routine site security operations.
- ▶ No vehicles, heavy machinery or earthworks will be permitted in the area above the Little Penguin nesting/breeding area and north of the reinstated "Wharf Road" (this area is also an important Long-nosed Bandicoot foraging area).
- ▶ Potential risks to Little Penguins will be considered in the planning and carrying out of minor construction and other works within the facility – with measures identified and implemented to reduce the risks to Little Penguins (such as covering pits and trenches at night and/or providing escape ramps, checking excavations and stockpiles prior to works, and having access to inducted/trained Little Penguin handlers).

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- ▶ The AIPM will notify the DECC (NPWS) immediately if the Little Penguin colony is disturbed in any way.
 - ▶ The AIPM will notify the DECC (NPWS) immediately if dead or sick Penguins are noted. Any injured animals will be dealt with immediately according to a protocol to be developed with the DECC (NPWS). The HGSM will maintain a record of all Little Penguins, and other fauna, injured or killed on-site.
 - ▶ The established DECC (NPWS) Little Penguin monitoring program provides considerable background information and population monitoring data for the Little Penguin. This information will be used to identify previous "natural" (pre-redevelopment) population ranges for the species at Spring Cove and these will serve as benchmark population variability data for future monitoring at the facility.
 - ▶ DECC organised monitoring of the Little Penguin population within the facility will continue as/when required by the DECC (NPWS). Approved additional monitoring may be undertaken in response to observed population changes or other incidents/events, and during the breeding and moulting seasons,
 - ▶ Little Penguin monitoring will preferably be organised and undertaken by the DECC (NPWS). The AIPM will - if required - engage suitably qualified personnel or induct and train nominated staff, as approved by the DECC (NPWS), to undertake monitoring tasks and to be available (if required) for the identification, handling, release or temporary care of

**Monitoring / Auditing /
Reporting**

Little Penguins.

- ▶ Little Penguin breeding burrows will be determined by visual inspection, in a manner similar to the established DECC (NPWS) monitoring program, and recorded. Non-breeding burrows will also be recorded.
 - ▶ All AIPM staff, and relevant (outdoor) contractors/service providers will be vigilant for any Little Penguins that may venture beyond the nesting/breeding area, and will report any sightings to the HGSM immediately.
 - ▶ The HGSM will arrange for monitoring of night lighting levels, under DECC (NPWS) direction or supervision, below the cliffline in the central area of the site (using a hand held light meter) between 9pm and 10pm of a weekday evening, and at the same times on a Sunday night, once every 6 months (in January and July). To avoid additional disturbance/stress, light monitoring will preferably be undertaken in conjunction with other Little Penguin monitoring efforts. These results will be compared against the baseline light reading taken at this location prior to redevelopment, to assess any increased light levels at this due to the redeveloped facility's operations. If no appreciable increases in light levels are observed over the first 3 years of monitoring, then the monitoring frequency will be reduced to once per year (in April).
 - ▶ The two central and far eastern stormwater outlets have co-existed with the Little Penguin colony for many years, however the additional western stormwater outlet is a new addition (but has only a limited catchment and is located slightly further away from the main collection of Little Penguin burrows). The impacts of these four features, in terms of the volume and quality of stormwater discharged through/into the Little Penguin nesting/breeding area, as well as erosion and sedimentation effects, will be regularly assessed and any potential impacts identified for remediation.
 - ▶ The HGSM will arrange for regular inspections - at least fortnightly during the nesting/breeding season - of that area of the facility within 50 metres of the top of the cliffline and nesting/breeding area to identify any new Little Penguin breeding burrows and other nesting or Little Penguin activity. Any sign of new Little Penguin activity will be immediately notified to the HGSM for advice to the DECC (NPWS), and appropriate protection measures for any outlying burrows. The HGSM will maintain a record of all Little Penguin incursion, evidence or activity above the cliffline and foreshore nesting/breeding area.
 - ▶ Management of the Little Penguin colony and the foreshore nesting/breeding area will be a major reporting item in the HGSM's annual audit/performance report to the AIPM Senior Management Team.
 - ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.
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- ▶ In the case of the abandonment of nest sites and/or chicks, or death of Little Penguins, an "exclusion zone" or "quiet zone" as large as possible (at least 10 metres in radius) will
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Corrective Action

be implemented around the effected area and all activities within the vicinity will cease, be relocated, or modified to reduce obvious disturbances. The DECC (NPWS) will be notified immediately and, as soon as is practical, the will inspect the Little Penguin colony and identify remedial/corrective actions in discussion with the AIPM. The AIPM and DECC (NPWS) will be responsible for jointly implementing corrective actions as per DECC (NPWS) advice).

- ▶ If monitoring indicates a marked reduction in Little Penguin numbers or activity generally within the colony over two consecutive breeding seasons - to a level to outside population fluctuations demonstrated by previous DECC (NPWS) monitoring - and this can be reasonably attributed to the facility's operations (rather than off-site or other influences), then the following strategies may be implemented after prior discussion with the DECC (NPWS):
 - ▶ additional or upgraded signposting, or fencing, of the nesting/breeding area;
 - ▶ modification of night lighting to reduce light spill across the nesting/breeding area - installing additional glare foils, improved directional lighting, providing timers or duration switches on external lighting, and trialling coloured or lower intensity lighting;
 - ▶ modification of evening/night security patrols/activity (where in place);
 - ▶ additional feral/introduced animal control efforts within and around the facility;
 - ▶ curfews and limiting disruptive, noisy or intrusive outdoor activities from the proximity (within 12-15 metres) of the nesting/breeding area to those times (daily or seasonally) when Little Penguins are least active or susceptible (curfew times may be determined in liaison with the DECC (NPWS), from observations/knowledge of Little Penguin activity, and on-site trials);
 - ▶ installing automated night shutters (possibly in conjunction with bushfire protection screens on these windows) or heavy curtains on the northern windows of Spring Cove and Kookaburra Cottages, to reduce light spill and noise from these residential units; and
 - ▶ the total exclusion of disruptive, noisy or intrusive outdoor activities from the proximity (within 12-15 metres) of the Little Penguin nesting/breeding area.
 - ▶ Temporary fencing and signs will be erected as required to protect any active Little Penguin breeding burrows occurring upslope of the foreshore nesting/breeding area (such as the burrow at present, 2008, near the sewage pumping station). All fencing/barriers will not extend to within 200 millimetres above the ground surface, to allow for the passage of Little Penguins underneath (and Long-nosed Bandicoots).
 - ▶ The need for a special noise and light barrier between the main built/activity areas of the facility and the Little Penguin foreshore nesting/breeding area will be regularly reviewed in the light of population monitoring results, observed impacts in the colony, and discussions with the DECC (NPWS). This
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barrier, if required, will be designed and installed so as not to impede fauna movement and surface water flows, while still offering a degree of noise and light protection to the nesting/breeding area.

- ▶ Penguin monitoring measures will be increased, if this is supported by the DECC (NPWS) and will not further disrupt/stress the population, to assess the efficacy of the any corrective actions taken.
 - ▶ Appropriate remedial actions will be taken if required in response to the quality/impacts of stormwater discharged through/into the Little Penguin nesting/breeding area (refer EP06). Corrective and preventative action will be taken in response to any serious erosion or sediment deposition in the nesting/breeding area (refer EP07).
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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Long-nosed Bandicoot (*Perameles nasuta*)

Objectives

- ▶ To minimise any impacts of the facility's operation on the Long-nosed Bandicoot.
- ▶ To protect the foraging and habitat areas of the Long-nosed Bandicoot within the facility.
- ▶ No reduction in the numbers of Long-nosed Bandicoot using the site, compared to previously observed activity/population variability.
- ▶ Minimise deaths or injuries of Long-nosed Bandicoots due to the facility's activities.

Performance Measures

- ▶ No reduction in the numbers of Long-nosed Bandicoots foraging across the facility's grounds, compared to previously observed activity/population variability.
- ▶ Fewer than 2 deaths or injuries to Long-nosed Bandicoots, that are directly attributable to the facility's activities, in any consecutive 12 months period.

Mitigation Measures and Actions

- ▶ Inductions for all staff and long-term contractors/service providers will include information on the Long-nosed Bandicoot, the species' habitat and behaviour, legal protection, and the protection and management protocols to be observed (including appropriate people/agencies and contact details for incidents involving Long-nosed Bandicoot).
- ▶ Welcome and orientation information provided to students/guests will include background information about the Long-nosed Bandicoot, its protected status, the importance of the area for the species, the rule not to disturb any animals sighted and other protective measures to be observed while on-site, and an AIPM contact person for any incidents involving Long-nosed Bandicoots.
- ▶ Advisory and regulatory signs will be installed at the entrance to the AIPM facility (in conjunction with the existing DECC (NPWS) signage in the Collins Beach carpark) and along the upper (southern) edge of the main grassed foreshore Bandicoot foraging area (in association with signage for the Little Penguin foreshore nesting/breeding area, as above). The signs will identify this area as environmentally sensitive, specify access/use protocols and/or restrictions, and include contact details for the relevant AIPM staff.
- ▶ The AIPM will continue to participate in the co-operative Long-nosed Bandicoot population monitoring and management programme at North Head, and membership of the DECC Long-nosed Bandicoot Recovery Team. The AIPM will co-operate with DECC (NPWS) in the implementation of the Long-nosed Bandicoot Recovery Plan (when adopted), where relevant.
- ▶ Long-nosed Bandicoots will only be handled by persons trained in the handling of the animals, as approved by the DECC (NPWS). At least two AIPM staff will be trained in Long-nosed Bandicoot handling.
- ▶ Landscape and grounds maintenance contractors will be

required to be vigilant for Long-nosed Bandicoots when carrying out their activities. These contractors, and all AIPM staff, will be required to immediately report any sick or injured Bandicoots seen to the HGSM.

- ▶ Maintenance of the landscaped and grassed areas around the facility will acknowledge the ongoing role of most of these areas play in providing Bandicoot foraging and refuge areas.
- ▶ Clumped plantings of low-growing native species will be established/maintained as occasional vegetation islands across the expanded northern foreshore grassed foraging area, as well as clumped plantings in/beside the reinstated central drainage line and along the lower edge of the reinstated "Wharf Road". These plantings will serve as additional refuge areas for Bandicoots.
- ▶ Any night or security lighting will be directed away from the northern foreshore grassed foraging area, and other major foraging zones, as far as possible. Any lighting essential in these areas will be provided with suitable hoods or glare-foils to reduce light spill across the Long-nosed Bandicoots activity areas.
- ▶ Any security personnel, including contractors, will be suitably inducted prior to commencing work on site - with particular reference to the nocturnal and crepuscular activity of Long-nosed Bandicoots, feeding behaviour, and the location and extent of preferred foraging areas. Patrol routes and operating procedures for any security personnel may be modified to minimise disturbance to Long-nosed Bandicoots. Dogs will not be permitted on-site as part of any routine site security operations.
- ▶ All AIPM staff, regular suppliers/delivery drivers, and long-term contractors/service-providers will be alerted to be vigilant for Long-nosed Bandicoots on or beside Collins Beach Road - and especially during the period 1 to 2 hours after sunrise and 1 hour each side of sunset. All drivers will be alerted to the 40 kph speed limit applying on Collins Beach Road.
- ▶ The HGSM will regularly liaise with local DECC (NPWS) staff in relation to recorded Long-nosed Bandicoot road deaths and injuries along Collins Beach Road, the extent to which these may be attributable to traffic to and from the facility, and appropriate management responses.
- ▶ A 10 kph speed limit will apply, and be enforced, for all vehicle movements within the facility to minimise the risks posed to Bandicoots from vehicles.
- ▶ Staff and student/guest vehicles will only park in designated/marked parking spots within the facility and, under normal circumstances, parking will be strictly prohibited on grassed/foraging areas.
- ▶ No vehicles, heavy machinery or earthworks will be permitted in the northern grassed foreshore foraging area – except in an emergency or for essential maintenance purposes.
- ▶ Potential risks to Long-nosed Bandicoots will be considered in the planning and carrying out of minor construction and

other works within the facility – with measures identified and implemented to reduce the risks to Bandicoots (such as covering pits and trenches at night and/or providing escape ramps, checking excavations and stockpiles prior to works, and having access to inducted/trained Long-nosed Bandicoots handlers).

**Monitoring / Auditing /
Reporting**

- ▶ The HGSM will notify the DECC (NPWS) immediately if dead or injured/sick Long-nosed Bandicoots are noted within the facility (to support existing DECC (NPWS) monitoring along Collins Beach Road). Any sick or injured animals will be dealt with immediately according to a protocol to be developed with the DECC (NPWS). The HGSM will maintain a record of all Long-nosed Bandicoots, and other fauna, injured or killed within the facility and provide this information to the DECC (NPWS) at least monthly.
- ▶ The established DECC (NPWS) Long-nosed Bandicoot monitoring programme provides considerable background information and population monitoring data for this species across North Head. This information will be used to identify previous “natural” (pre-redevelopment) population ranges for the species at the facility and the Spring Cove area, and these will serve as benchmark population and foraging variability data for future monitoring at the facility.
- ▶ DECC organised monitoring of the Long-nosed Bandicoot population within the facility will continue as/when required by the DECC (NPWS). Approved additional monitoring may be undertaken in response to observed population or foraging activity changes or other incidents/events.
- ▶ Long-nosed Bandicoot monitoring will preferably be organised and undertaken by the DECC (NPWS). The AIPM will - if required - engage suitably qualified personnel or induct and train nominated staff, as approved by the DECC (NPWS), to undertake monitoring tasks and to be available (if required) for the identification, handling, release or temporary care of Long-nosed Bandicoots. Trapping and/or spotlight transects of foraging areas and/or surveys of Bandicoot diggings will continue to be the principal monitoring techniques employed, as per the established DECC (NPWS) monitoring programme.
- ▶ The data/results of all monitoring carried out within the facility, regardless of who undertakes it, will be recorded and held by the HGSM.
- ▶ Management of the Long-nosed Bandicoot population will be a major reporting item in the HGSM’s annual audit/performance report to the AIPM Senior Management Team.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ In the case of the death or injury of a Long-nosed Bandicoot the DECC (NPWS) will be notified immediately and, as soon as is practical, the will inspect the area and/or review the incident and identify remedial/corrective actions in discussion with the AIPM. The AIPM will be responsible for
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implementing corrective actions as per DECC (NPWS) advice.

- ▶ If monitoring indicates a marked reduction in Long-nosed Bandicoot numbers or foraging activity generally across the site - to a level to outside activity/population fluctuations demonstrated by previous DECC (NPWS) monitoring - and this can be reasonably attributed to the facility's operations (rather than off-site or other influences), then the following strategies may be implemented after prior discussion with the DECC (NPWS):
 - ▶ additional or upgraded signposting, or fencing, of the main northern grassed foraging area above the cliffline (all fencing/barriers will not extend to within 200 millimetres above the ground surface, to allow for the passage of Bandicoots);
 - ▶ temporary fencing (as above) and signs to limit human access/activity across other foraging areas;
 - ▶ less frequent mowing/slashing of the northern grassed foreshore foraging zone to provide a more thickly/heavily grassed area for Bandicoots (as well as to enhance the filtering of surface water flows from the main areas of the facility before they reach the Little Penguin nesting/breeding area below);
 - ▶ artificially enhancing Bandicoot foraging areas, such as by irrigation and/or aeration and/or light tilling;
 - ▶ the monitoring of ambient night light levels (using a hand held light meter) in the western, central and southern areas of the main northern Bandicoot foraging area (taken above the cliffline, between 9pm and 10pm on three consecutive nights, when a residential course is in occupation at the facility) and the results compared against the baseline light readings taken at these locations prior to redevelopment, to assess any increased light levels due to the redeveloped facility's operations and to determine the need for modification of night lighting to reduce light spill across foraging areas – such as installing additional glare foils, improved directional lighting, providing timers or duration switches on external lighting, and trialling coloured or lower intensity lighting;
 - ▶ modification of evening/night security patrols/activity (where in place);
 - ▶ additional feral/introduced animal control efforts within and around the facility;
 - ▶ limiting disruptive, noisy or intrusive outdoor activities in the external areas and buildings immediately upslope (south) of the main northern foreshore grassed foraging area; and
 - ▶ installing automated night shutters (possibly in conjunction with bushfire protection screens on these windows) or heavy curtains on the northern windows of Spring Cove and Kookaburra Cottages, to reduce light spill and noise from these residential units.
 - ▶ If Bandicoot injuries or fatalities along Collins Beach Road, from the AIPM gate to the junction with North Head Scenic
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Drive, that can reasonably be attributed to traffic to/from the facility exceed 1 incident in any 6 month period the following strategies may be implemented after prior discussion with the DECC (NPWS) where relevant:

- ▶ increased surveillance of the road margins for dead/injured Bandicoots after sunrise and each side of sunrise and sunset by the HGSM or other AIPM staff;
 - ▶ additional warning signage will be installed at high risk locations or sites with a record of near-misses or incidents (with approval from the DECC (NPWS));
 - ▶ a special speed limit of 20 kph enforced for all AIPM related traffic on Collins Beach Road (including students/guests, deliveries and service-providers) will be enforced;
 - ▶ additional speed humps and traffic slowing devices may be installed (with approval from the DECC (NPWS)); and
 - ▶ fencing of key sections of the roadside, possibly in conjunction with existing or additional speed humps/traffic calming, to funnel Bandicoots to managed low-speed road sections (with approval from the DECC (NPWS)).
- ◆ Long-nosed Bandicoot monitoring measures will be increased, if this is supported by the DECC (NPWS) and will not further disrupt/stress the population, to assess the efficacy of the any corrective actions taken.
 - ◆ Appropriate remedial actions will be taken if required in response to any serious erosion or sediment deposition across the main northern grassed foraging area (refer EP07).
 - ◆ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ◆ Timescales will be identified for the completion of any necessary correction actions.
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***Phytophthora cinnamomi* (Pc)**

Objectives

- ▶ To protect the native vegetation across the site and within the Sydney Harbour National Park (SHNP) from the introduction and impacts of *Phytophthora cinnamomi* (Pc).
 - ▶ To protect the Little Penguin foreshore nesting/breeding area.
 - ▶ No introduction of Pc onto the site, or further occurrence/spread across North Head, as a result of the facility's operations.
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Performance Measure

- ▶ No introduction or spread of Pc to or from the site.
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Mitigation Measures and Actions

- ▶ The AIPM will commission preparation of a *Phytophthora cinnamomi* Dieback Management Plan that is based on the precautions, guidelines and management responses as set out in the *Management of Phytophthora cinnamomi for Biodiversity Conservation in Australia: Part 2 - National Best Practice Guidelines*. Reference will also be made to the *Draft Best Practice Guidelines* produced by Sydney Harbour Dieback Working Group. This plan will be an extension of a similar document prepared for the site's redevelopment, and will be completed within 3 months of completion of the redeveloped facility (until the new plan is in place the relevant provisions of the Dieback Management Plan prepared for the construction phase will continue to be observed).
 - ▶ The *Phytophthora cinnamomi* Dieback Management Plan will be prepared by a person suitably skilled and experienced in the management of PC, and both the author and final document will be endorsed by the DECC (NPWS).
 - ▶ The guidelines of the *Phytophthora cinnamomi* Dieback Management Plan will be implemented in the facility's day-to-day operations - with particular emphasis in the areas of landscape and grounds maintenance, bushfire hazard management, and minor construction activity involving earthworks.
 - ▶ Induction of all AIPM staff and long-term contractors/service providers will include information on Pc, the risks and implications of its introduction to the site, the requirements of the *Phytophthora cinnamomi* Dieback Management Plan (when completed) and the measures in place and procedures to be adhered to prevent the introduction/spread of Pc.
 - ▶ All fill and landscaping materials brought onto the site must be certified Pc-free or from a Pc free area and the landscape and grounds maintenance contractor must provide appropriate records/verification to support this to the HGSM prior to any material being brought onto the facility. The HGSM will maintain these records/certification.
 - ▶ Vehicles will generally be restricted to sealed or otherwise hardened/surfaced routes, to avoid direct soil contact.
 - ▶ AIPM staff and students/guests will not be encouraged to enter the bushland and foreshore areas surrounding the facility. Appropriate disinfectant or fungicides will be provided (in spray bottles with brushes and other footwear cleaning equipment – with instructions for their use) for use by those
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people who do access the surrounding bushland on exit and again on their return.

- ▶ The HGSM will ensure that specific Pc hygiene and management prescriptions are included in contract arrangements for contractors undertaking high Pc risk operations - such as earthmoving and excavation, bush clearing/regeneration, and landscaping.

Monitoring / Auditing / Reporting

- ▶ The HGSM will conduct a visual inspection of Pc susceptible tree species within, and adjacent to, the facility every 3 months for any early indications of Pc or dieback (such as wilting yellowing or drying out of leaves and darkening of roots). Records will be kept of these inspections.
- ▶ Landscape and grounds maintenance contractors will be required to note and report the early indications of Pc or dieback as part of their routine activities.
- ▶ The HGSM will notify the DECC (NPWS) as soon as possible if vegetation on site or in adjacent areas shows signs of stress or disease.
- ▶ The HGSM will conduct spot checks to ensure that AIPM staff and contractors undertaking high Pc risk operations are observing Pc hygiene and management guidelines. Records will be kept of these spot checks and the results.
- ▶ The HGSM will maintain appropriate documentation or records to validate the "Pc clean" status of all fill, landscaping and other materials brought onto the facility.
- ▶ The HGSM will regularly liaise with the local DECC (NPWS) staff in relation to the status of PC across North Head generally and any emerging threats/ma or management issues.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ If Pc is confirmed or reasonably suspected within the facility the AIPM will prepare and implement an appropriate *Phytophthora cinnamomi* Action/Response Plan that is again based on the national best practice guidelines (*Management of Phytophthora cinnamomi for Biodiversity Conservation in Australia: Part 2 - National Best Practice Guidelines*) and local experience (*Draft Best Practice Guidelines* produced by Sydney Harbour Dieback Working Group). The Action/Response Plan will be prepared by a person suitably skilled and experienced in the management of PC, and endorsed by the DECC (NPWS).
- ▶ The AIPM will co-operate with the DECC (NPWS) and other landholders in the containment and management of Pc across the North Head area generally.
- ▶ Any fill or landscaping materials brought onto the facility are subsequently found to be Pc infected the material will be removed from the site immediately and the stockpile area and other effected locations suitably treated. These areas will then be subject to quarterly follow-up visual monitoring for at least 2 years, and the results recorded.

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- ▶ Contractor compliance with Pc hygiene and management provisions will be enforced through warnings, penalty provisions and contract termination where required.
 - ▶ Preference will be given to Pc resistant native tree and shrub species in the facility's on-going landscape and grounds maintenance – where this does not conflict with other habitat/environmental and bushfire hazard management objectives.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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Vegetation, Weeds and Pests

Objectives

- ▶ To protect and enhance native vegetation communities and habitat values.
 - ▶ No new noxious or environmental weed species introduced into the facility.
 - ▶ Identified weed infestations on-site are controlled, where consistent with other habitat/biodiversity management objectives.
 - ▶ No increase in the occurrence and impacts of feral and pest animals within and around the facility.
 - ▶ To provided for the appropriate management of bushfire hazards, consistent with other habitat/biodiversity and site management objectives.
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Performance Measures

- ▶ No net reduction in the extent of native vegetation/bushland across the site as a whole following completion redevelopment of the facility, with the quality and connectivity of retained bushland and native vegetation areas enhanced.
 - ▶ No new noxious or environmental weed occurrences, and no spread of existing weed infestations. .
 - ▶ Weed management controls have been carried out on site, with an overall reduction in the incidence of weeds. .
 - ▶ No increase in the occurrence and impacts of feral and pest animals.
 - ▶ Rabbit populations are maintained at levels where minimal damage to native vegetation is resulting.
 - ▶ No predation of Little Penguins or Long-nosed Bandicoots by Foxes and Cats.
 - ▶ Bushfire hazard management measures implemented and any wildfire incidents are appropriately managed.
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Mitigation Measures and Actions

- ▶ Native vegetation and landscape/amenity plantings will be managed within the majority of the facility (excluding the Little Penguin foreshore nesting/breeding area) as guided by the Masterplan and Site Landscape Plan (see Appendix B).
 - ▶ All removal of areas of native vegetation within the site must be approved by the HGSM.
 - ▶ Landscape and amenity plantings - as shown in the Masterplan and Site Landscape Plan (see Appendix B) - will employ native species propagated from plants of local provenance. The landscape and grounds maintenance contractors will be responsible for sourcing local seed stock and plants, and will provide documentary evidence to the HGSM to verify the local provenance of plant material used.
 - ▶ Clumped plantings of low-growing native species will be established at selected locations across the site - as shown on the Site Landscape Plan (see Appendix B) - to serve as refuge areas for Long-nosed Bandicoots and other wildlife.
 - ▶ Mowing/slashing of the northern grassed foreshore foraging will take place during the middle of the day, to minimise
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disturbance to Little Penguins. This area may be mown/slashed less frequently than other areas of site if it is suspected that this activity is adversely impacting the Little Penguin nesting/breeding area, to enhance the area's value for Long-nosed Bandicoot foraging, or to improve surface run-off filtration).

- ▶ The Little Penguin foreshore nesting/breeding area – the vegetated cliffline (supporting both native vegetation and introduced/weed species) and foreshore along the northern boundary of the site – will be subject to special vegetation management measures formulated and implemented in collaboration with the DECC (NPWS). Many introduced plant species in this area, and the mixed vegetation cover of native and introduced plants, are used by the Little Penguins for shelter and nesting. The DECC (NPWS) has advised that this species' shelter and habitat needs take precedence over weed removal within the foreshore nesting/breeding area. This includes no weed removal/clearing in the vicinity of any other known active breeding burrow above the cliffline (such as the burrow at present, 2008, near the sewage pumping station). AIPM liaison with the DECC (NPWS) regarding management of vegetation within the Little Penguin foreshore nesting/breeding area (and other management needs for this species, as above) will be on-going.
- ▶ The DECC (NPWS) has adopted a very precautionary approach to the management of the Little Penguin foreshore nesting/breeding area within the AIPM site, and has only undertaken/endorsed very limited trial weeding and rehabilitation in small areas of the nesting/breeding area over the past several years in co-operation with the AIPM. The DECC (NPWS) have advised that this slow and cautious approach to weed control and regeneration of this area should continue, as modified/informed by regular feedback from Little Penguin monitoring efforts, and that more rapid or intrusive weeding and vegetation management in this area is not desirable. The AIPM will discuss vegetation management measures in the foreshore nesting/breeding area with the DECC beforehand, and preference will be given to the DECC (NPWS) undertaking the agreed vegetation management measures for the AIPM on a contract basis wherever practical.
- ▶ Noxious weeds will be controlled as required by the relevant legislation/regulation and class of weed in question (excluding in the Little Penguin foreshore nesting/breeding area).
- ▶ Environmental weed infestations across the site (excluding the Little Penguin foreshore nesting/breeding area) will be eradicated or controlled according to a prioritised programme – considering:
 - ▶ any species identified as a “Weed of National Significance”;
 - ▶ health risk or “nuisance” for staff and students/guests;
 - ▶ the level of threat posed to native vegetation communities and habitat values;
 - ▶ invasiveness and potential for spread into undisturbed

bushland;

- ▶ the potential for restoration of high quality bushland; and
 - ▶ likelihood of success, and ease of removal/control.
- ▶ Weed control efforts and bush regeneration programmes are to be carried out by personnel qualified in the recognition of weeds and potential weed species.
 - ▶ Broad area spraying will not be used as a weed control measure within the facility. Hand weeding or other physical measures, and the direct application of herbicides (“scrape and paint” or “cut and paint” methods), will be the preferred weed control methods - followed by the re-establishment of native vegetation or continued maintenance of landscaped areas.
 - ▶ Detailed weeding and bush regeneration procedures will be negotiated between the relevant contractors and AIPM. An indicative approach to weed control in newly landscaped and retained/restored native vegetation areas would be - primary or “knock-down” weeding, followed 2 to 3 weeks later by secondary weeding (to remove weed species remaining after the primary weeding and weed seedlings that have germinated since the previous treatment), with maintenance weeding carried out at 3 monthly intervals (with additional treatments as seasonal conditions and site response dictate) for at least one year, and thereafter control as part of routine landscape/grounds maintenance and as dictated by new weed infestations.
 - ▶ Herbicide use - using low-risk low persistence products and direct application methods (such as “scrape and paint” or “cut and paint”) - will be carefully managed, especially around known Long-nosed Bandicoot foraging areas and in proximity of the central drainage line and major stormwater inlet points (that discharge across the Bandicoot foraging area and/or over the Little Penguin nesting/breeding area).
 - ▶ Trees will be pruned, in preference to total removal, wherever practical during routine landscape/grounds maintenance.
 - ▶ The advice of a qualified arborist or tree surgeon will be sought as/when required in relation to tree pruning and the management of significant trees within the facility, as well as to conduct tree safety audits on an “as needed” basis (but at intervals not greater than once every 2 years).
 - ▶ Any trees to be removed (or prior to major pruning) will first be inspected for any hollows and the presence of larger wildlife species which, if found, will be relocated to areas of suitable adjoining habitat by a person trained and approved (by the DECC (NPWS)) in wildlife handling.
 - ▶ Mulched material from vegetation removed or lopped as part of landscape maintenance works will retained for re-use on-site wherever possible. Mulched material will be stored outside of the identified Asset Protection Zone, Long-nosed Bandicoot foraging areas, and clear of the central drainage line and major stormwater inlet points (that discharge across the Bandicoot foraging area and/or over the Little Penguin nesting/breeding area). Mulch stockpiles will be suitably silt fenced along their downslope and cross-slope margins where
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warranted.

- ▶ Removed/cleared vegetation likely to include propagules of environmental or noxious weeds will not be mulched or re-used/recycled on-site, but bagged and removed to an appropriate greenwaste disposal facility (using covered trucks/vehicles to further prevent weed spread).
- ▶ Any soil, fill and mulched material introduced to the site should be certified as being free of weeds (and *Phytophthora cinnamomi* - refer above). Appropriate documentation to verify this will be provided by the landscape and grounds maintenance contractors to the HGSM.
- ▶ Soil, spoil, fill, mulch and other bulk materials will not be stockpiled within the “dripline” of trees.
- ▶ Landscape and grounds maintenance contractors will be alerted to the possible presence of - and given training or materials to assist them in the identification of - the following threatened or significant flora and fauna species which have the potential to occur within the facility’s grounds:
 - ▶ *Genoplesium baueri* (an orchid);
 - ▶ *Chamaesyce psammogeton* (a prostrate herb);
 - ▶ *Eucalyptus camfieldii* (a stringy-barked mallee-form eucalypt); and
 - ▶ the Red-crowned Toadlet.

Any suspected occurrence of these species will be reported to the HGSM for further investigation.

- ▶ Measures to protect native vegetation and trees will be identified and implemented in the planning and carrying out of minor construction and other works within the facility.
- ▶ Only approved access roads and parking/turning areas are to be used by vehicles on site, and vehicles will be restricted to sealed or otherwise hardened/surfaced routes as far as possible. Vehicles will not be permitted to park on any unsealed areas or off sealed surfaces beneath trees.
- ▶ Erosion and sedimentation control measures will be implemented - refer EP07 - to minimise areas conducive to the introduction and establishment of weeds.
- ▶ A pest plant and animal control programme will be developed for the facility with input from DECC (NPWS) and with due consideration of potential impacts on the Little Penguin nesting/breeding area and Long-nosed Bandicoot foraging and refuge areas. Where possible, for maximum effectiveness, the pest plant and animal control programme will be carried out in conjunction with similar programmes being implemented by the DECC (NPWS). Only those control measures that pose a minimal risk to Long-nosed Bandicoots and Little Penguins, and their habitats, will be used.
- ▶ The AIPM will continue to participate in joint feral/introduced animal control programmes across North Head - targeting Foxes, Rabbits and Cats.
- ▶ Food scraps and putrescible waste will be stored in securely covered bins/containers, so as not to attract pest (and native)

animals (refer EP010).

- ▶ According to a prior agreement between AIPM and the DECC (NPWS) an external Asset Protection Zone (APZ) has been established and will continue to be maintained immediately outside the facility's southern and western boundaries and extending up to 10 metres inside SHNP. The HGSM will liaise with local DECC (NPWS) staff over the maintenance of this APZ.
- ▶ Access for bushfire suppression and fire management activities around the facility's margins - to the external APZ and inside perimeter of the site - will be maintained. Access to and through the site's perimeter fence will be by vehicle (to a standard suitable for an RFS Category 9 ultra-light tanker (or an NPWS "Striker" appliance) or similar) and on foot for the south-western gate, and on foot only for the south-eastern gate.
- ▶ The HGSM will ensure that Total Fire Ban restrictions, or other precautions on days of unacceptably high bushfire risk, are observed within the facility - including by contractors/service-providers. The HGSM will also ensure that up-to-date emergency access information is routinely provided to the local DECC (NPWS) Area Manager, NSW Fire Brigades local command and relevant Rural Fire Service fire control centre.

Monitoring / Auditing / Reporting

- ▶ Up-to-date maps of the occurrence of environmental and noxious weeds (recording weed type, extent and density) within the facility (excluding the Little Penguin foreshore nesting/breeding area) will be maintained by landscape or bush regeneration contractors and provided for the HGSM's information and records.
- ▶ "Walk-over" inspections of the entire facility (excluding the Little Penguin foreshore nesting/breeding area) will be conducted annually, by landscape and/or bush regeneration contractors or other qualified persons, to monitor for weed outbreaks and spread. The results will be recorded by the HGSM.
- ▶ Landscape and bush regeneration contractors will provide reports to the HGSM regarding the number and species of plantings, weed removal, herbicides used and other details sufficient for the HGSM to maintain a record of environmental management across the site.
- ▶ Photo records will be maintained by the HGSM of bush regeneration undertaken on site.
- ▶ All staff will be vigilant for any new weed outbreaks, and The HGSM will maintain documentation to verify the Pc-free status of all landscaping and fill material imported into the site.
- ▶ The HGSM will keep copies of all tree safety audits.
- ▶ The HGSM will maintain records of all bushfire hazard reduction activities carried out on-site.
- ▶ The HGSM will record details of any wildlife injuries or deaths across the site due to the facility's operations (in addition to

Long-nosed Bandicoots and Little Penguins data).

- ▶ Landscape and grounds contractors and all staff will be vigilant for any Fox sightings within or near the facility, and immediately report any confirmed or suspected sightings to the HGSM for advice to the DECC (NPWS) . . .
- ▶ Spotlight surveys will be conducted in Spring and late Summer every year, for a minimum of two hours from 8.00pm onwards, to gauge the number and type of pest/feral animals on the site - particularly Foxes, Rabbits, Cats, and Black Rats. These efforts may be combined with Long-nosed Bandicoot surveys. Any Fox sightings will be immediately reported by the HGSM to the DECC (NPWS). The HGSM will also liaise with the DECC (NPWS) in relation to feral animal surveys/numbers in the North Head area generally.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ In response to potential sightings, the AIPM will engage an appropriate specialist to investigate the possible occurrence of other threatened or significant native plant and animals species within the facility. If any such species are confirmed the HGSM will liaise with the DECC (NPWS) regarding the development of appropriate management responses.
- ▶ If a substantial outbreak of a declared noxious weed is found then as soon as practicable the HGSM will have a qualified person assess and treat the area (if outside the Little Penguin foreshore nesting/breeding area), as necessary by hand pulling individual plants. Under no circumstances will the plants found be chopped, slashed or burned due to the potential for spreading of seed. Noxious weed infestations within the Little Penguin foreshore nesting/breeding area will be referred by the HGSM to the DECC (BPWS) for advice and a management response.
- ▶ Survey frequencies for noxious and environmental weeds will be increased in those areas subject to repeated infestations and during peak growth periods.
- ▶ The AIPM will implement control measures for pest/feral animals - particularly Foxes, Rabbits, Cats and Black Rats - when the number of these species likely to be on-site reach unacceptable levels – as advised by the DECC (NPWS) and in conjunction with co-ordinated management measures across North Head generally.
- ▶ Fox control measures will be undertaken in close collaboration with the DECC (NPWS), and may be taken over by this agency if appropriate as part of the wider co-operative regional Fox control programme.
- ▶ The origin of weeds occurring on site will be identified wherever possible, so weed infestations can be attacked/managed at their source (with co-operation of the DECC (NPWS) if required).
- ▶ If Pc is confirmed or reasonably suspected within the facility the AIPM will prepare and implement an appropriate *Phytophthora cinnamomi* Action/Response Plan (refer

above).

- ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.3 EP03 – Heritage Buildings and Sites

Objectives

- ▶ Protection of significant cultural heritage sites, and especially the numerous remaining/adapted buildings considered of high or moderate heritage significance.
 - ▶ Remaining/adapted heritage buildings and other reinstated historic features are maintained to protect their heritage values and interpreted where appropriate.
 - ▶ Nil damage by humans to any Aboriginal heritage features that may be present or discovered on-site.
 - ▶ Appropriate measures are in place to manage any additional heritage sites/values uncovered.
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Performance Measures

- ▶ Heritage buildings and features maintained in sound condition.
 - ▶ No unplanned/accidental/inadvertent damage to heritage buildings or features.
 - ▶ Nil damage by humans to any Aboriginal heritage features that may be present or discovered on-site.
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Mitigation Measures and Actions

- ▶ The future protection, management, on-going adaptation, maintenance and further minor works involving the buildings and other features of heritage value/significance will be carried out in accordance with the recommendations and guidelines of the NBRIS and Partners 2008 *Historic Heritage Management Plan* as well as the requirements of relevant (Commonwealth) legislation and recognised heritage protocols (notably the Burra Charter).
 - ▶ The AIPM will engage a suitably qualified and experienced heritage architect or heritage professional as/when required to aid in interpreting the *Historic Heritage Management Plan* and other heritage requirements/protocols, and to provide regular advice on heritage matters in the future management and maintenance of heritage buildings and features - 2008 *Historic Heritage Management Plan* (Recommendation 57).
 - ▶ The HGSM and other personnel responsible for the ongoing management and operation of the facility will also be provided with training in heritage management, to enable the integration of best practice principles into the day-to-day operation of the site - 2008 *Historic Heritage Management Plan* (Recommendation 56).
 - ▶ A central recommendation (Recommendation 14) of the Management Plan that will be implemented by the AIPM throughout the facility's management is that the DoP Heritage Branch *Standard Exemptions for Works* be used as the basis for undertaking routine maintenance, repairs and minor works on the heritage buildings/features without the continual need for further heritage assessments, referral and approvals.
 - ▶ A planned maintenance and repair programme will be prepared and implemented for the heritage buildings based on an understanding of their existing state, construction, character and materials - as set out in the 2008 *Historic*
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Heritage Management Plan (Recommendation 20).

- ▶ Contractors, tradespeople and other construction workers directly involved in the working on heritage buildings or items of heritage value will be appropriately qualified in their relevant fields and have knowledge and experience of built heritage conservation principles and practices - 2008 *Historic Heritage Management Plan* (Recommendation 21).
- ▶ Care will be taken by both tradespeople and supervisory staff that significant heritage fabric is not damaged by maintenance and repair activities - 2008 *Historic Heritage Management Plan* (Recommendation 22).
- ▶ Where painting is to be undertaken for significant external fabric only authenticated heritage colour schemes should be adopted (where this information is known, as verified by investigation of the physical evidence of surviving colour schemes) - 2008 *Historic Heritage Management Plan* (Recommendation 23). However only surfaces originally painted will be repainted in the Axial Hospital Group and at the Garden Cottage - 2008 *Historic Heritage Management Plan* (Recommendation 24).
- ▶ Further historical and archaeological investigation will be encouraged by the AIPM into the alignments of the former Jetty Road and Quarantine Station Road, to support the retention/reinstatement or recognition of these routes within the facility's redevelopment and shed further information on their precise location and materials evolution, and identify any interpretive opportunities - 2008 *Historic Heritage Management Plan* (Recommendations 28, 29 and 47).
- ▶ The 2008 *Historic Heritage Management Plan* will be reviewed before December 2012.
- ▶ Interpretation will be developed - both as on-site and published materials - to provide an improved understanding and appreciation of the heritage values of the site amongst students/guests, other visitors and staff - 2008 *Historic Heritage Management Plan* (Recommendations 59 and 60).
- ▶ Inductions for all staff and long-term contractors/service providers will include information on the facility's past, historic heritage values, significant heritage buildings, 2008 *Historic Heritage Management Plan*, the protective and management protocols to be observed in relation to the site's built heritage.
- ▶ Specialist contractors/workers and tradespeople, and others working on/in heritage buildings, will receive additional briefings targeted to their areas of operation.
- ▶ Welcome and orientation information provided to students/guests will include background information about the site's history and heritage values.
- ▶ Site induction of all personnel, including contractors, will include information on the site's overall heritage values, the heritage value of buildings to be retained, and the mitigation measures of this OEMP to protect them.
- ▶ The protection of heritage buildings and values will be considered in the planning and carrying out of minor construction and other works within the facility – with

measures identified and implemented to reduce the risks to heritage buildings/features such as pre-works recording, fencing, signage, buffer areas and the other measures.

- ▶ If any unexpected historical relic(s) are encountered during routine maintenance works or other activities on the site, any or all of the follow measures may be implemented (or others as recommended by a heritage specialist):
 - ▶ any work/activity likely to affect the relic(s) will cease immediately;
 - ▶ temporary barriers or fences may will be erected around the site;
 - ▶ temporary measures undertaken to secure and protect the site/feature from immediate threat or damage; and
 - ▶ the Department of Planning (Heritage Branch) will be notified, by the HGSM, in accordance with the *Heritage Act 1977*;
 - ▶ the nature and significance of the discovery assessed by a heritage specialist, and appropriate management actions suggested.
 - ▶ As a minimum, all new heritage discoveries will be recorded - 2008 *Historic Heritage Management Plan* (Recommendation 48).
 - ▶ The location and nature of any Aboriginal site(s) that may be present or discovered within the facility will not be divulged to students/guests and will be only made known to those contractors and AIPM staff likely to come into contact with any site(s). The HGSM will liaise with the DECC (NPWS) and Metropolitan Local Aboriginal Land Council regarding ongoing protection and management of any Aboriginal sites/values that may be present or discovered. Access to any such Aboriginal site(s) will generally be limited to selected AIPM personnel for management purposes only, where advised as appropriate by the DECC (NPWS) and Metropolitan Local Aboriginal Land Council.
 - ▶ The AIPM will provide for access to any Aboriginal sites/values that may be present or discovered within the facility for Aboriginal people associated with the area and representatives of the Metropolitan Local Aboriginal Land Council.
 - ▶ If continually accidentally impacted by human access/activities, any Aboriginal site(s) that may be present or discovered within the facility will be fenced and signposted to prevent inadvertent access. However any such sites would not generally be signposted as an Aboriginal site, but simply identified as a “no access” or “sensitive area”.
 - ▶ If any unexpected Aboriginal artefacts or sites are encountered during routine maintenance works or other activities on the site then all work likely to affect the artefact(s) or feature will cease immediately, temporary barriers or fences around the site will be erected, and the HGSM will notify the DECC (NPWS). The HGSM will liaise with the DECC (NPWS) and Metropolitan Local Aboriginal Land Council (if deemed necessary by the DECC (NPWS)) to develop appropriate management responses actions which
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the AIPM will implement or assist Aboriginal people/group in implementing as appropriate. Any new Aboriginal sites will be recorded by the HGSM, with this information kept on limited circulation or confidential where required.

**Monitoring / Auditing /
Reporting**

- ▶ Regular condition inspections of the heritage buildings will be carried, with a complete “checklist” visual inspection of the condition all heritage buildings completed by the HGSM at least annually, and prompt preventative maintenance and repair work undertaken as required - 2008 *Historic Heritage Management Plan* (Recommendation 20).
- ▶ The HGSM will maintain a record of all maintenance and repair work, painting, adaptations or new works/additions, and minor construction works carried out on the facility's heritage buildings and other features. This record could also be prepared by the retained heritage specialist, but must be held by the HGSM with a copy also stored off-site.
- ▶ The AIPM will retain copies of all further historical and archaeological investigation undertaken within the facility, or in relation to its past and heritage values.
- ▶ The AIPM will provide access for the DECC (NPWS) and Metropolitan Local Aboriginal Land Council to undertake monitoring inspections of any Aboriginal sites/values that may be present or discovered on-site, as desired by those agencies.
- ▶ Any new historic heritage sites and Aboriginal sites will be recorded by the HGSM. Information regarding Aboriginal sites may be kept on limited circulation or confidential where required.
- ▶ The AIPM will prepare brief status reports into the extent to which the recommendations contained in the 2008 *Historic Heritage Management Plan* have been achieved. These reports will be prepared annually.
- ▶ The 2008 *Historic Heritage Management Plan* will be reviewed before December 2012.
- ▶ The HGSM will maintain a register of all heritage training undertaken by AIPM staff.
- ▶ The 2008 *Historic Heritage Management Plan* will be redrafted, or a new plan prepared, if major works or further substantial redevelopment of the facility are envisaged.
- ▶ Management of the site's heritage buildings and values will be a major reporting item in the HGSM's annual audit/performance report to the AIPM Senior Management Team.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ Prompt preventative maintenance and repair works will be undertaken on heritage buildings as a result of the regular condition inspections or observed defects/problems.
 - ▶ In the case of inadvertent damage to heritage buildings all work will cease in and around any site where accidental
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damage has occurred while appropriate management/corrective actions are developed by the HGSM in consultation with heritage advisers.

- ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.4 EP04 – Hazardous Materials

Objectives

- ▶ No detrimental impacts on staff, student/guest and neighbours' health.
 - ▶ To minimise the potential risk of contamination of air, soil and water arising from hazardous materials or dangerous goods.
 - ▶ No asbestos related incidents.
 - ▶ No spills and land or water contamination on-site or off-site.
 - ▶ Any contaminated soils remain inert on site or are removed from the site.
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Performance Measures

- ▶ Hazardous Material Management Plan prepared, implemented and updated as required.
 - ▶ No staff, student/guest and neighbours' health issues arising from hazardous materials or dangerous goods.
 - ▶ Asbestos Register maintained and annual asbestos audits completed.
 - ▶ No asbestos related incidents.
 - ▶ General hazardous materials audits completed every two years.
 - ▶ Number of incidents involving the handling or storage of hazardous materials or dangerous goods - target of 1 (or fewer) non-conformances in any consecutive 6 month period, with no significant environmental or health consequences.
 - ▶ Appropriate handling and storage of hazardous materials or dangerous goods to be evident on-site at all times.
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Mitigation Measures and Actions

- ▶ A Hazardous Materials Management Plan will be prepared, identifying the type, location and extent/amount of hazardous materials or dangerous goods occurring on the site and/or routinely used in the facility's operations. The Plan will address the potential environmental and health impacts, specify required storage and handling procedures, identify replacement policies and schedules where appropriate, outline spill and emergency response procedures, detail other mitigation measures as appropriate, and include responsibilities and reporting requirements.
 - ▶ All exposed/external or structural asbestos within the facility will be maintained in a sound condition and painted/sealed to reduce the risk of generating airborne asbestos fibres. Asbestos flagging will be maintained in a sound condition with no evidence of tearing/shredding or other deterioration.
 - ▶ Any maintenance, repair or minor construction works involving asbestos will be undertaken in accordance with the *Occupational Health and Safety Act (Asbestos Removal Works Regulation) 1995*, *Construction Safety Act 1912* (Regulations 84A-J in particular) and the Worksafe Australia Asbestos Code of Practice and Guidance Notes.
 - ▶ Contractors/tradespeople working in the facility will be briefed
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on the occurrence of asbestos within the site. Contractors/tradespeople working with asbestos, or in asbestos effected areas of the site, will be required to prepare and lodge a safe work method statement for the HGSM's approval before starting work.

- ▶ Lead-based painted surfaces will be maintained in a sound condition with minimal flaking and deterioration. Remaining lead-based paint will be progressively removed/replaced throughout the facility as part of routine maintenance works.
- ▶ Light fittings containing, and assumed to contain, PCB capacitors will be progressively replaced throughout the facility.
- ▶ Inductions for all staff and long-term contractors/service providers will include information on hazardous materials and dangerous goods, Hazardous Materials Management Plan, and incident/spill and emergency response procedures.
- ▶ Welcome and orientation information provided to students/guests will include appropriate emergency response and evacuation instructions/advice.
- ▶ Staff and long-term contractors/service providers required to handle or work with hazardous materials or dangerous goods will wear appropriate PPE and receive the necessary training in its use.
- ▶ No bulk (in excess of 100 litres of each type) supplies of fuels, lubricants and chemicals will be stored on site (excluding where required for emergency or safety purposes, such as diesel storage for fire hydrant pumps). Fuels, chemicals, solvents and other hazardous liquids will not be decanted or handled in the vicinity of the central drainage line and major stormwater inlet points (that now discharge across the Bandicoot foraging area and /or over the Little Penguin nesting/breeding area).
- ▶ Appropriate warning and safety signs, as well as Material Safety Data Sheets (MSDS), will be clearly displayed and MSDSs readily accessible in all locations where hazardous materials or dangerous goods are stored. Centralised copies of all MSDSs will also be held by the HGSM. The HGSM will ensure that all materials are handled, used and disposed of in accordance with their MSDS.
- ▶ Appropriate first aid, emergency response and fire-fighting equipment will be maintained in good working order at strategic readily-accessible locations throughout the facility at all times.
- ▶ Spill kit and other spill containment and treatment equipment and materials will be provided in the kitchen, maintenance store, cleaners store, and workshop as well as at other locations where hazardous materials are stored or regularly used.
- ▶ All fuel, oil or chemical spills in excess of 200 litres (in total) will be considered a major incident and require attendance of the NSW Fire Brigades and other emergency services.
- ▶ Spills of hazardous materials will be contained and collected for disposal/treatment at an EPA licensed waste

Hazardous/contaminated wastes will only be transported and disposed of by disposal contractors holding appropriate EPA licences, and copies of appropriate disposal documentation must be provide to the HGSM.

- ▶ Plant, equipment and vehicle refuelling on-site will be limited to essential small-volume requirements only, where it is not practical to refuel off the facility. Only operational/routine plant or equipment maintenance, will be conducted on-site, with appropriate environmental safeguards in place (such as drop sheets, waste containment/disposal, stormwater inlet protection, etc).

Monitoring / Auditing / Reporting

- ▶ The HGSM will notify the DECC (EPA) immediately in the event of a serious "pollution incident" which could cause harm to the environment, personnel or neighbours.
- ▶ An Asbestos Register will be maintained identifying the location, type and condition of all asbestos known to occur within the facility.
- ▶ An audit will be undertaken, by an external specialist, each year to report on the condition and hazards posed by all asbestos remaining within the facility and the Asbestos Register updated accordingly. Copies of all asbestos audits will be maintained on the facility, by the HGSM, as well as copious held off site.
- ▶ A general hazardous materials audit will be conducted every three years, in conjunction with the annual asbestos audit, and the Hazardous Materials Management Plan updated accordingly.
- ▶ The HGSM will conduct random spot-checks, at least quarterly, of different areas/activities within the facility to ensure that hazardous materials and dangerous goods guidelines are being adhered to and all spill/response equipment is available. The results will be recorded in a log maintained by the HGSM.
- ▶ The HGSM will keep records of the appropriate disposal of any hazardous/contaminated wastes or materials, including copies of appropriate disposal documentation.
- ▶ Reports of any unplanned events/incidents involving hazardous/dangerous materials will be recorded in the Environmental Incidents and Complaints Register. These will include details of the implementation and effectiveness of any corrective actions, and measures identified to prevent a recurrence of the incident.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ In the event of an emergency the site emergency procedures take precedent and environmental implications will be assessed and managed only when the emergency has been contained and it is safe to access the facility.
 - ▶ The AIPM will immediately carry out remedial action, as directed by the DECC (EPA), in response to a serious "pollution incident" which could cause harm to the
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environment, personnel or neighbours

- ▶ Asbestos incidents, spills or other incidents involving hazardous/dangerous materials will be dealt with promptly by the HGSM, in accordance with the response timelines/prioritises as specified in the Hazardous Materials Management Plan.
 - ▶ Operating procedures will be reviewed following any serious spills or hazardous/dangerous materials incidents.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.5 EP05 – Air Emissions

Objective	<ul style="list-style-type: none"> ▶ To minimise any detrimental air emissions, including dust, arising from the facility's operations.
Performance Measures	<ul style="list-style-type: none"> ▶ No detrimental impacts on staff and student/guest health. ▶ Number of incidences of air emissions/quality, due to the facility's activities, exceeding relevant NSW EPA guidelines - target of less than 1 incident in any consecutive 12 month period. ▶ No complaints received from neighbours and nearby receptors relating to air quality due to the facility's operations.
Mitigation Measures and Actions	<ul style="list-style-type: none"> ▶ Under no circumstances will waste, vegetation or other materials be burnt on-site (excluding hazard reduction operations or the ecological use of fire as approved by the DECC (NPWS). ▶ Preference will be given to bushfire hazard reduction methods other than hazard reduction burns - wherever this is consistent with bushfire hazard reduction and ecological management requirements (refer EP02). ▶ The use of ozone depleting substances within the facility will be avoided. ▶ Kitchen vents will continue to be filtered, and these units maintained in good working order. ▶ All vehicles, plant and equipment used/operated within the facility will be maintained and operated in a proper and efficient condition to ensure emissions are minimised. ▶ Vehicles will be restricted to sealed or otherwise hardened/surfaced routes. ▶ Vehicles carrying fill, spoil or other potential dust generating materials will not be loaded above their side and tail boards, and all such loads will be covered. Suppliers and delivery vehicles will be required to cover their loads, where there is a potential for dust generation (or spills), as part of the facility's supply/purchasing procedures. ▶ Native vegetation, landscaping and grass cover will be maintained across the "undeveloped" areas of the facility to assist in dust suppression (as well as water quality and erosion control – refer EP06 and EP07). Cleared, disturbed or exposed areas will be revegetated/stabilised as soon as practicable following completion of contributory works/activities to reduce dust potential (refer EP07) ▶ Vegetation mulching can generate dust. Weather conditions will be assessed during the mulching activities, and under strong wind conditions that can raise excessive dust mulching will cease. ▶ The stockpiling of soil and spoil will be avoided on the site, and any temporary storages will be covered or stabilised (using suitable materials such as hessian or jute-mat covers)

and stored for as short a time as practical.

- ▶ Hazardous materials with the potential to generate dust or air-borne particulates will be treated in accordance with the Hazardous Materials Management Plan (see EP04).

**Monitoring / Auditing /
Reporting**

- ▶ The HGSM will conduct spot-checks to ensure that contractor, service provider and delivery vehicles, plant and machinery entering or in use on the site are not in obvious breach of appropriate emission standards. Checks will be by visual inspection (no visible exhaust emissions after 30 seconds running).
- ▶ The HGSM will arrange for air and emissions sampling to be carried out, by a certified testing service/agency, when air quality issues are suspected to be unacceptable.
- ▶ All AIPM staff will be vigilant in identifying potential dust generating activities, and will report these to the HGSM.
- ▶ Occurrences of air emissions/quality exceeding relevant NSW EPA guidelines, and dust complaints from neighbouring receptors, will be recorded in the Environmental Complaints, Non-conformances and Corrective Actions Register.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ The HGSM will follow-up all air quality and dust complaints from neighbouring receptors (nearby land holders/uses) within 5 business days. Mitigation measures will be reviewed and implemented within 15 working days where necessary – this may include modifying or ceasing the suspected activities contributing to the emissions, investigating alternative operations, installing pollution control devices, and investigating EPA licensing options.
 - ▶ If air quality and/or dust management is an ongoing issue, and/or the source of persistent external complaints, the HGSM will arrange for the installation of a High Volume Air Sampler (HVAS) or other appropriate air quality monitoring technology at a selected location on the site to provide continuous empirical data to assist in managing this issue.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.6 EP06 – Water Quality and Stormwater

Objective	<ul style="list-style-type: none">▶ No discharge of contaminated stormwater and no water pollution incidents from the facility's operations.▶ To minimise adverse impacts of stormwater quality and volumes leaving the site. .▶ To maximise the on-site re-use of stormwater. .▶ No accidental spills or discharges, or uncontrolled stormwater discharges, affecting the Little Penguin foreshore nesting/breeding area or water quality in Spring Cove.▶ Rainwater is captured and re-used where possible.
Performance Measures	<ul style="list-style-type: none">▶ All stormwater and drainage on-site is managed to minimise or ameliorate impacts.▶ No discharge of contaminated stormwater, with stormwater leaving the site meeting the following parameters:<ul style="list-style-type: none">▶ less than 50mg/L suspended solids;▶ pH 6.5 to 8.5; and▶ no visible oil or grease, and no surface sheen.▶ No uncontrolled stormwater discharges across the Little Penguin foreshore nesting/breeding area.▶ No turbid water is released from the site.▶ Implementation of measures for rainwater capture and re-use.
Mitigation Measures and Actions	<ul style="list-style-type: none">▶ To ensure the quality of stormwater leaving the site fuels, lubricants, chemicals and wastes will be stored and handled - and any spills managed - as set out in EP04 and EP10.▶ Vehicle traffic and parking will be restricted to sealed and other designated areas where runoff is directed to the stormwater drainage/treatment system.▶ The components of the stormwater drainage/treatment system will be cleaned and maintained as required for their continued efficient functioning.▶ The "Humeceptors" within the stormwater drainage/treatment system will be maintained and serviced according to manufacturer's specification - to ensure continuing capture of suspended solids, petroleum hydrocarbons and other waterborne contaminants.▶ Rainwater from the roofs of the buildings of the Axial Hospital Group, and the new accommodation units and classroom in the facility's west, will be collected and re-used to reduce loadings on the stormwater system (also refer EP09).▶ To protect water quality, minimise exposed soil areas and implement sediment control measures for any works requiring extensive soil surface disturbance (refer EP07).▶ The rock anti-scour/energy-diffusing beds at the eastern and

western stormwater outlets, as well as the reinstated “natural” drainage line through the centre of the facility, will be maintained and upgraded if required to operate effectively and in response to their performance under actual flow volumes/conditions.

- ▶ Drains will be suitably protected - with geotextile “sausages”, hay bales or other measures - during any earthworks or the exposure of extensive areas of soil surface to ensure that sediment-laden runoff does not enter the stormwater system. Similar measures will be implemented in the event of spills or contamination incidents.
- ▶ The grassed area above (south) of the foreshore, and clumped plantings along the downslope edge of the lower (northern) roadway, will be managed to assist in filtering surface water flows from the facility before they reach the cliffline and Little Penguin nesting/breeding area.

Monitoring / Auditing / Reporting

- ▶ The quality of stormwater leaving the site will be monitored, at least once every 6 months (and with one monitoring event each year after a major rainfall event, if possible), from at least 2 of the 3 stormwater outlets on each occasion and with all outlets tested at least once every year. Monitoring will include an assessment of suspended solids and turbidity, pH, salinity, petroleum products, visible oils and grease, potassium and nutrients, and heavy metals. Acceptable standards for stormwater leaving the site will be determined in consultation with the DECC (EPA) within the first 6 months of the redeveloped facility’s operation.
- ▶ As part of their routine/daily activities, the HGSM will opportunistically monitor the facility for potential stormwater pollution and discharge issues. All AIPM staff will be vigilant in identifying potential stormwater pollution and discharge issues, and will report these to the HGSM.
- ▶ The HGSM will inspect stormwater drainage/treatment system within 48 hours of a significant rain event to assess its performance and look for signs of damage/failure or contaminated holding waters. This will include visual assessment of any turbidity in adjacent waters of Spring Cove.
- ▶ The rock anti-scour/energy-diffusing beds at the eastern and western stormwater outlets, as well as the reinstated “natural” drainage line through the centre of the facility, will be periodically inspected to ensure the integrity of the rock armouring and monitor for edge scour and undercutting or other defects.
- ▶ Although they have co-existed with the Little Penguin colony for many years, the modified stormwater discharge points in the centre and east of the facility will be monitored for any adverse impacts on the Little Penguin nesting/breeding area (refer EP02).
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ If monitoring indicates that the quality of stormwater leaving

the site is regularly below the required standards, measures to upgrade the stormwater drainage/treatment system will be implemented including:

- ▶ modifying/adapting the drainage/treatment system;
 - ▶ upgraded/larger “Humeceptors” or the installation of additional units to better remove suspended solids, petroleum hydrocarbons and other waterborne contaminants;
 - ▶ installing more advanced/efficient treatment technologies;
 - ▶ on-site detention, treatment, diversion or capture and removal from site of stormwater from problem areas of the site;
 - ▶ modification, relocation or cessation of those activities contributing to the stormwater quality issues; and
 - ▶ other improvements/modifications as necessary.
- ▶ The AIPM will install any additional temporary stormwater detention and settling ponds, geotextile fabric filters, and other measures as/where required to better control stormwater flows and discharges from the site as indicated by the results of site inspections and monitoring while longer term improvement to the stormwater system are devised and implemented.
 - ▶ Excessive stormwater movement/contamination in the Little Penguin nesting/breeding area, or turbidity in Spring Cove, will be priority issues requiring immediate corrective and preventative action by the AIPM. Appropriate remediation measures will be identified in consultation with the DECC and future preventative measures implemented as a priority.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.7 EP07 – Erosion and Sedimentation

<p>Objectives</p>	<ul style="list-style-type: none"> ▶ No extended or unmanaged areas of erosion on the site, and no sediment deposition or sediment-laden run-off across or from the site. ▶ No discharge of sediment into the Little Penguin foreshore nesting/breeding area or Spring Cove. ▶ No excess build up of sediment in the stormwater system.
<p>Performance Measures</p>	<ul style="list-style-type: none"> ▶ Limited areas of minor localised erosion and sediment run-off and deposition occasionally evident within the facility, but routinely rectified or under active management/control and remediation. ▶ No sediment discharge/deposition across the northern grassed Long-nosed Bandicoot foraging area, the Little Penguin foreshore nesting/breeding area, and Spring Cove. ▶ Suitable erosion control measures are implemented for exposed/disturbed soil areas. ▶ No turbid water is released from the site.
<p>Mitigation Measures and Actions</p>	<ul style="list-style-type: none"> ▶ Stormwater sumps will be routinely (at least annually) cleaned and maintained to prevent to the build-up of sediments and other matter. Cleaning will only occur during periods of dry weather. ▶ During routine operations any minor exposed soil areas will be minimised and disturbed areas rehabilitated/surfaced as soon as practicable following completion of the contributory works/activities. ▶ Silt fencing and other sediment control measures to prevent erosion/deposition and protect water quality will be implemented for any works requiring extensive (in excess of 40 square metres) soil surface disturbance. Soil and water management structures will be in place prior to the commencement of any works. ▶ The HGSM will determine the nature of the erosion/sedimentation protective measures warranted given the location and scale of the works proposed. Major works entailing extensive soil disturbance, effecting more than 15% of the site or that the HGSM considers have the potential to impact the Little Penguin nesting/breeding area, will require the preparation of an erosion and sediment control plan. ▶ Any soil and fill stockpiles will be protected by silt fences on the lower side and margins (if needed) and upslope berms (to divert water flows). Stockpiles will not be located in proximity to the central drainage line and major stormwater inlets, in environmentally sensitive areas, or within the “dripline” of trees. ▶ Drains will be suitably protected - with geotextile “sausages”, hay bales or other measures - during any earthworks or the exposure of extensive areas of soil surface to ensure that

sediment-laden runoff does not enter the stormwater system.

- ▶ Vehicle access and movement will be restricted within the facility to prevent soil erosion and compaction (refer EP 11).

**Monitoring / Auditing /
Reporting**

- ▶ The HGSM will monitor the extended grassed Long-nosed Bandicoot foraging area above (south) of the foreshore, and the three stormwater discharge points above/into the Little Penguin nesting/breeding area, every quarter for excessive sediment deposition. The results/observations will be recorded.
- ▶ As part of their routine/daily activities, the HGSM will opportunistically monitor the facility for emerging or potential erosion and sedimentation problems. All AIPM staff will be vigilant in identifying erosion and sedimentation problems, and will report these to the HGSM.
- ▶ The HGSM will inspect the facility's grounds within 48 hours of a significant rain event to identify any erosion or sedimentation impacts and potential problems. This will include visual assessment of any turbidity in adjacent waters of Spring Cove.
- ▶ All erosion and sediment control devices will be regularly inspected, at least fortnightly, to ensure their efficient operation and capacity while in operation/required on-site.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ The grassed area above/upslope (south) of the Little Penguin nesting/breeding area and harbour foreshore will be mown/slashed less frequently than other areas of the site as an initial control measure if minor sediment deposition is observed – or is likely in association with future minor works – across the northern parts of the site.
 - ▶ Excessive sediment deposition in, or movement through, the Little Penguin nesting/breeding area, or turbidity in Spring Cove, will be priority issues requiring immediate corrective and preventative action by the AIPM. Appropriate remediation measures will be identified in consultation with the DECC and future preventative measures implemented as a priority.
 - ▶ Additional erosion and sediment control, measures, or improved site remediation, will be implemented as/where required. If additional preventative/corrective measures fail to adequately contain the impacts those activities generating the erosion/sedimentation problems will be modified, relocated, limited or ceased.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.8 EP08 – Noise Impacts

Objective	<ul style="list-style-type: none"> ▶ To minimise noise impacts on Little Penguins and Long-nosed Bandicoots. ▶ To minimise noise impacts on neighbouring receptors and the local community.
Performance Measures	<ul style="list-style-type: none"> ▶ No excess or un-necessary noise generation. ▶ No disruption to the Little Penguin populations (outside observed populations and activity ranges), particularly during breeding and moulting periods, and minimal impacts on Long-nosed Bandicoots. ▶ The LA10 level as measured at the three external noise monitoring sites set up prior to redevelopment of the facility (as below), over at least 15 minutes during the facility's normal operations, does not exceed the previously recorded background noise levels by more than 10 dB(A). ▶ Number of noise complaints received from nearby receptors, and dutiful response to any complaints received.
Mitigation Measures and Actions	<ul style="list-style-type: none"> ▶ Management of noise generated by the facility's operations will be guided by the <i>Protection of the Environment Operations (Noise Control) Regulation 2000</i> and also the NSW EPA's <i>Environmental Noise Management Series</i>. ▶ The timing of future construction works or major noise generating activities will be guided by Manly Council's standard noise control regulations. ▶ Deliveries to the site will, where practical, be scheduled to occur outside noise sensitive periods of sunrise or early mornings, to limit any potential noise impacts on surrounding receptors. ▶ Vehicles, plant and machinery used/operated within the facility will be fitted with appropriate noise abatement equipment, regularly maintained in accordance with the manufacturers' instructions and in good working order. ▶ Temporary noise generating activities (such as vegetation mulching, air compressors and temporary generators) will occur or be located towards the southern parts of the site - and away from the Little Penguin nesting/breeding area and further from other sensitive receptors - wherever possible. ▶ The need for a noise (and light) barrier between the main built/activity areas of the facility and the Little Penguin foreshore nesting/breeding area will be regularly reviewed - refer EP02. Also refer to EPO2 for other mitigation measures regarding noise impacts on Little Penguins and Long-nosed Bandicoots. ▶ PPE will be worn by all workers undertaking or in the proximity of noisy activities, as required by Work Place Health and Safety Legislation.
Monitoring / Auditing /	<ul style="list-style-type: none"> ▶ Noise levels will be monitored and recorded every 6 months

Reporting

(in January and July) at the three noise monitoring sites as set up prior to redevelopment of the facility, as follows:

- ▶ at the eastern end of Stuart Street, Little Manly Point, between 8.00am and 9.00am and between 3.00pm and 4.00pm on a weekday, and at the same times on a Sunday;
 - ▶ at the centre (rear) of Spring Cove Beach between 8.00am and 9.00am and between 3.00pm and 4.00pm on a weekday, and at the same times on a Sunday; and
 - ▶ at the south-western boundary of Manly Hospital between 8.00am and 9.00am and between 3.00pm and 4.00pm on a weekday, and at the same times on a Sunday.
- ▶ If no increase in noise levels - above the 10 dB(A) LA10 threshold as described above - are observed over the first 3 years of monitoring then the monitoring frequency will be reduced to once per year (in April).
 - ▶ The HGSM will arrange for noise levels to be measured by as required in response to complaints, and the results recorded.
 - ▶ Maintain the Environmental Complaints Register, in regard to noise complaints from nearby receptors and authorities.
 - ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.
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Corrective Action

- ▶ The HGSM will follow-up all noise complaints from neighbouring receptors (nearby land holders/uses) within 5 business days. Complaints from Manly Hospital will be followed up within 2 business days. Mitigation measures will be reviewed and implemented within 30 days where necessary. Possible noise mitigation measures include:
 - ▶ restricting noise generating activities to specific, less noise sensitive, times of the day;
 - ▶ modifying work practices, where possible, to generate less noise;
 - ▶ enforcing curfews in certain areas of the site of for certain activities;
 - ▶ including, and enforcing, penalty provisions in sub-contractor arrangements for excess noise generation; and
 - ▶ conducting follow-up monitoring to assess the effectiveness of actions taken, and liaising with complainants as required.
 - ▶ The HGSM will investigate and arrange for rectification of any unusually noisy plant, machinery and equipment - including requiring repair actions or removal from site by contractors or service providers.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.9 EP09 – Resources and Energy Usage

Objective	<ul style="list-style-type: none"> ▶ To achieve a continuing improvement in the resource and energy conservation in the facility's operation.
Performance Measures	<ul style="list-style-type: none"> ▶ Energy and Water Conservation Plan prepared and being implemented. ▶ A 10% reduction in water and electricity consumption achieved over the first 5 years of the redeveloped facility's operation.
Mitigation Measures and Actions	<ul style="list-style-type: none"> ▶ An Energy and Water Conservation Plan will be prepared within the first 2 years of the redeveloped facility's full-time operation. This will include suitable benchmarks against which to measure improvements. The Plan will be prepared with reference to Commonwealth Government targets and policies in relation to energy and water use/conservation. ▶ Energy efficient work practices will be encouraged across all aspects of the facility's operations. An energy conservation awareness programme will be developed for AIPM staff and appropriate energy and conservation information provided for students/guests. ▶ The installation of solar hot water will be expanded throughout the facility where/when possible. ▶ The practicality of on-site solar power generation will be further investigated in the future in the light of improving technologies, subsidies and feed-in tariffs, and other economic factors. ▶ Preference will be given to low-energy electric lighting, dual flush toilets, and low-water urinals wherever practical. ▶ Natural gas may be connected to the site and reticulated for use throughout the facility in the future, as a more energy efficient and lower greenhouse gas emission energy option. ▶ Rainwater from the roofs of the buildings of the Axial Hospital Group, and the new accommodation units and classroom in the facility's west, will be collected and re-used to reduce loadings on the stormwater system. This rainwater will initially be re-used for toilet flushing, with additional uses and options for further rainwater harvesting to be investigated. ▶ A purchasing policy will be developed and implemented that promotes the purchase of energy efficient products (including life-cycle costs and embodied energy where known) and avoids over packaged products or those involving excessive waste. ▶ Preference will be given to local suppliers, where practical, to reduce transport distances/costs/impacts.
Monitoring / Auditing / Reporting	<ul style="list-style-type: none"> ▶ Annual consumption of electricity and mains-supplied water. ▶ Volume of rainwater harvested and re-used.

	<ul style="list-style-type: none">▶ Annual waste volumes generated.▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.
Corrective Action	<ul style="list-style-type: none">▶ Revise energy and water usage targets and requirements of the Energy and Water Conservation Plan.▶ Increase awareness, and observance, of energy efficient work practices and water conservation amongst staff and students/guests.

4.10 EP10 – Waste Management

Objectives	<ul style="list-style-type: none">▶ To minimise the generation of wastes, maximise reuse and recycling, and ensure that waste is disposed of at approved locations and in an authorised fashion.▶ No evidence of site contamination as the result of waste.▶ No waste disposal infringements.
Performance Measures	<ul style="list-style-type: none">▶ Waste and Recycling Management Plan prepared and implemented▶ Quarterly recycling target volumes/percentages are achieved.▶ Wastes are stored and managed correctly on site, with fewer than an average of 1 waste non-conformance or “incident” (such as uncontained materials, windblown waste, bin/hopper overflows, unhygienic work sites, etc) per month.▶ No stormwater or soil contamination due to waste non-conformances or “incidents”.▶ Licensed contractor used for hazardous and non-hazardous waste disposal.▶ Documented evidence that waste has been disposed of correctly/legally by sub-contractors/waste contractors.
Mitigation Measures and Actions	<ul style="list-style-type: none">▶ A Waste and Recycling Management Plan will be prepared within one year of the redeveloped facility’s completion and full-time recommencement. The Plan will identify the principal types of wastes generated by the facility’s operations, waste stream management and measures for waste minimisation, re-use opportunities, recycling procedures, and recycling target ranges/percentages. Solid and liquid waste types addressed will include, as a minimum:<ul style="list-style-type: none">▶ hazardous/dangerous or contaminated wastes (asbestos, oils, paints, flammables, corrosives, contaminated soils, etc.);▶ building materials;▶ sewage and greywater;▶ electronic equipment and ancillaries (computers, printers, mobile telephones, electric lights, etc);▶ batteries;▶ aluminium and metals;▶ glass;▶ putrescible and kitchen wastes;▶ kitchen grease trap waste;▶ plastics;▶ paper/cardboard;▶ vegetation (landscape); and▶ comingled/mixed waste.▶ The Waste and Recycling Management Plan will be integrated with the Hazardous Materials Management Plan.

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- ▶ Contractors/service-providers will be required to demonstrate acceptable waste reduction and recycling practices as part of their contractual arrangements and activities within the facility.
 - ▶ Inductions for all staff and long-term contractors/service providers, will include information on waste minimisation and recycling and the requirements of the Waste and Recycling Management Plan.
 - ▶ Welcome and orientation information provided to students/guests will include information on waste minimisation and recycling procedures (and “do not feed the wildlife” requirements).
 - ▶ An adequate number of bins, skips and other receptacles (suitable for the intended waste types) will be located as required around the facility – including recycling containers (such as desk-side office paper recycling bins) – for the effective management of wastes and recyclables throughout the facility. Any external rubbish bins will be equipped with lids. These containers will be emptied daily, or more frequently where required in the kitchen or other high-use zones, as part of the facility’s routine cleaning operations and the most materials taken to the central garbage and recycling storage area.
 - ▶ All kitchen waste will continue to be “double-bagged”.
 - ▶ Suitable “butt bins” for smokers’ waste will be located in external locations as required, and their use strictly enforced (to prevent these long-lived wastes entering the stormwater system).
 - ▶ Separate containers will be provided for chemicals and chemical containers, paint and paint containers, cooking oils, and other materials that cannot be disposed of in the general waste stream.
 - ▶ The external garbage and recycling storage area will provided with large wheeled skip/dump bins (suitable for emptying by compactor trucks, 2 to 3 times per week or otherwise as required). These will be fitted with heavy-duty lids to ensure all wastes are contained and not accessible to wildlife (to prevent foraging and dispersal by native and feral fauna). Skips will be locked when full to prevent further use and possible overflow. This area will be maintained free of uncontained or excess rubbish.
 - ▶ Waste will not, under normal circumstances, be stockpiled or uncontained within the facility.
 - ▶ Removed/excess vegetation will be re-used on-site, mulched as necessary, wherever practical. However vegetation likely to include propagules of environmental or noxious weeds will not be re-used/recycled within the facility.
 - ▶ All recyclable waste, that cannot be re-used by/within the facility, will be removed to an approved recycling centre. All non-recyclable waste - including litter, garbage, other solid waste - will be removed to a licensed waste disposal facility.
 - ▶ All non-recyclable hazardous waste will be removed to a licensed waste disposal facility authorised to dispose of such
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materials.

- ▶ The disposal of asbestos waste will be as described in EP04.
- ▶ The AIPM will use only certified waste transporters who hold an appropriate environment protection licence (issued by DECC).
- ▶ Road vehicles carrying waste material will not be loaded above their side and tail boards and all loads will be covered.
- ▶ Sewage from the facility will continue to be disposed of to the Sydney Water sewerage system, via the existing sewage pumping station in the facility's north-west corner.
- ▶ The kitchen grease trap will continue to be cleaned, and the waste removed from site, on a contract basis.
- ▶ All work areas will be maintained in a clean and hygienic condition. "Sweeps" for the removal of windblown and other litter from the facility's grounds will be included as part of the landscaping and grounds maintenance activities.
- ▶ Any feeding of fauna will be totally prohibited within the facility.

Monitoring / Auditing / Reporting

- ▶ The HGSM will maintain records of waste generation and disposal, as well as the extent of re-use and recycling, as required by the Waste and Recycling Management Plan. Recycling records will be collated quarterly to assess the attainment, or otherwise, of performance targets.
- ▶ Waste contractor(s) will keep records of hazardous or prescribed waste volumes and disposal locations, including transfer receipts and other documents to validate the appropriate disposal of these wastes from the facility.
- ▶ The HGSM will conduct random spot-checks, at least quarterly, of the performance of contract cleaners to ensure compliance with recycling and waste management procedures/requirements. Contract/performance review meetings will be held as was warranted.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ Clean-up and remediation provisions/responsibilities will be included in all waste handling and disposal contracts. Penalties and punitive measures will be included, and enforced as warranted, in contracts with waste disposal contractors.
 - ▶ Any spills or leakages/overflows, or non-conformances with specified waste management practices, involving hazardous wastes will be responded to immediately upon detection. Further details of hazardous material management are provided in EP04.
 - ▶ Any spills or leakages/overflows, or non-conformances with specified waste management practices, involving non-hazardous wastes will be remediated - by the AIPM or contractor involved (depending on accountability) within 2 working days.
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- ▶ A sewage pump-out service will be arranged if the existing sewage pumping station is off-line for in excess of 36 hours or when the overflow tanks reach 60% full. Suitable bunding or containment measures will be provided in this area to contain any possible overflows/spills during this operation and measures implemented (such as temporary fencing) taken to avoid impacting any Little Penguin breeding burrows in this vicinity (refer EP02).
 - ▶ A review of the existing sewage pumping station's operation, and overflow capacity, will be conducted in the event that this facility malfunctions on two unrelated occasions within any 6 month period.
 - ▶ The AIPM will seek to continually improve waste minimisation and management as well as recycling/reuse performance throughout the facility's operation.
 - ▶ The AIPM will immediately carry out remedial action, as directed by the DECC (EPA), in response to a serious waste management incident which could cause harm to the environment, personnel or neighbours.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.11 EP11 – Traffic and Parking

Objectives	<ul style="list-style-type: none">▶ To ensure public, staff and students/guest safety and convenience.▶ To minimise disruption/impacts to the local traffic network, neighbours and the public.▶ To ensure there are no traffic impacts on significant wildlife species, environmentally sensitive areas or heritage buildings.▶ To control vehicle movements, and parking within the facility.
Performance Measures	<ul style="list-style-type: none">▶ Long-nosed Bandicoot road mortalities – attributable to facility traffic – are not demonstrably higher than for observed pre-existing road mortality levels along Collins Beach Road.▶ Speed limits adhered to, on and off site.▶ No valid complaints recorded regarding facility access, vehicle movements and parking.▶ Vehicles are only using the designated on-site roads/accesses, and only parking in the designated areas.▶ Emergency vehicle access maintained at all times when the facility is in use/occupied.
Mitigation Measures and Actions	<ul style="list-style-type: none">▶ The AIPM will continue to participate in the North Head Traffic and Transport Workshop to contribute to effective traffic management across the headland as a whole.▶ All staff and long-term suppliers or service providers will be directed to, and regularly reminded of, the 40 kph speed limit on Collins Beach Road as well as the risk of encountering Long-nosed Bandicoots on this access.▶ All suppliers, deliveries and service providers will be required to observe restrictions on loading vehicles/trucks above the level of the side boards and tail boards, and the requirement to appropriately cover all loose loads.▶ All traffic will be required to enter and leave the site in a forward direction.▶ Wherever practical, deliveries to the site will be scheduled outside morning and evening peak traffic periods.▶ Students and guests will continue to be encouraged to use taxis, organised transport, shared travel or public transport when travelling to and from the facility. Staff will also be encouraged to share transport or use alternatives to private vehicles for travel to and from work. The AIPM will prepare a Workplace Travel Plan and a Transport Guide promoting the use of walking, cycling, public transport and car sharing.▶ No vehicles associated with course participants and guests will, under normal circumstances, be permitted to park in the small parking area immediately outside the AIPM entry. This area is intended to serve visitors to Spring Cove Beach and the HGSM will ensure that this use is not

prevented/compromised by traffic and excess parking associated with the facility.

- ▶ The HGSM will ensure that emergency road access to the facility is possible at all times when staff and students/guests are on-site, and so will monitor illegal parking and obstructing vehicles in the Spring Cove carpark and lower section of Collins Beach Road. If illegally parked or otherwise obstructing vehicles are posing access problems in this area the HGSM will contact the local DECC (NPWS) office or duty Ranger for a response.
- ▶ All vehicles will, except in emergencies or with other prior approval, be restricted to sealed or otherwise hardened/surfaced routes and designated routes within the facility for environmental and amenity reasons. An on-site speed limit of 10 kph will apply, and be enforced, for all vehicle movements within the facility (for safety reasons, given the confined site area, and to minimise risks to Long-nosed Bandicoots).
- ▶ Vehicles will only park in designated/marked parking spots within the facility.
- ▶ To avoid possible impacts on the Little Penguin foreshore nesting/breeding area and a major long-nosed Bandicoot foraging zone, vehicles will be strictly prohibited from the grassed area north of the line of Spring Cove and Kookaburra cottages without prior approval of the HGSM. For other measures to reduce the impacts of vehicles on wildlife refer EP03.
- ▶ The AIPM will continue to control site access/entry to ensure that only authorised vehicles associated with the facility and its operations enter the site.

Monitoring / Auditing / Reporting

- ▶ The HGSM will refer to the baseline traffic surveys undertaken prior to redevelopment of the site (by TEF Consulting, 2008) - at the AIPM gate, the junction of Collins Beach Road and North Head Scenic Drive and the junction of Darley Road and Marshall Street - and update any or all of these if warranted by repeated public/agency complaints to assess actual increased traffic levels generated by the facility's operation.
- ▶ As part of their routine/daily activities, the HGSM will opportunistically monitor vehicle speeds (by observation and judgement) and parking across the facility. More structured monitoring will be implemented if required by frequent observed infringements.
- ▶ Spot-checks, inspections, performance monitoring, assessments and audits will be conducted in accordance with EP01.

Corrective Action

- ▶ The HSGM will respond promptly to any public or agency complaints of excessive speeds on Collins Beach Road by staff, students/guests or supplier/contractors. Corrective actions may include:
 - ▶ speed limit reminders;
 - ▶ reduced speed limits on Collins Beach Road for staff, students/guests and long-term contractors/service
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providers;

- ▶ official cautions;
 - ▶ requesting a more frequent DECC (NPWS) Ranger presence on the route; and
 - ▶ penalties or supply/service contract termination, or similar.
- ▶ Low-key low-profile vehicle barriers - such as plantings, low bollards, low post and rail/chain, or sandstone blocks - will be installed, if needed, to restrict vehicle access/movement to designated roads. Measures will be selected that do not restrict stormwater flows or fauna movement.
 - ▶ If the availability of parking within the facility becomes an issue the AIPM will investigate options for reducing on-site parking demands – such as a pick-up service from Manly Wharf and other public transport nodes, encouraging car-sharing by staff, and secure off-site parking with a shuttle service to the facility.
 - ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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4.12 EP12 – Visual Impacts

Objectives	<ul style="list-style-type: none"> ▶ To reduce the facility’s visibility, and any perceived intrusiveness, when viewed from residential and open space areas to the north and north-east and from the harbour.
Performance Measures	<ul style="list-style-type: none"> ▶ Screening landscaping and native vegetation in place and in healthy condition along the facility’s northern margins and northern side of the larger more visible built elements. ▶ Minimal receipt of public complaints regarding the facility’s visual impact and intrusiveness.
Mitigation Measures and Actions	<ul style="list-style-type: none"> ▶ Foreshore vegetation along the site’s northern margin will be retained as a visual screen – as well as for its function as part of the Little Penguin foreshore nesting/breeding area (refer EP02). ▶ Landscape plantings throughout the facility, and especially along the northern side of major built elements and along the site’s northern margin, will be maintained in a healthy and robust condition as far as possible to screen and soften the built mass and appearance of the facility (refer also to the <i>Phytophthora cinnamomi</i> (Pc) management guidelines in EP02). ▶ Where consistent with historic heritage requirements, muted colour schemes will be adopted and preference given to non-reflective materials during routine maintenance and painting works. ▶ External lighting will be limited to that essential for safety and security purposes, so as to reduce the facility’s night-time visibility (refer to EP02 for light management measures in relation to significant fauna species).
Monitoring / Auditing / Reporting	<ul style="list-style-type: none"> ▶ Photo monitoring points will be maintained at the eastern end of Stuart Street on Little Manly Point and at the centre (rear) of Spring Cove Beach. Digital photographs, at 50-55mm aperture (approximating the naked-eye view), looking toward the facility will be taken from these locations annually (in conjunction with the noise monitoring carried out at these locations) and the photographs kept by the HGSM as a record of the facility’s visual “presence” when viewed from outside the site.
Corrective Action	<ul style="list-style-type: none"> ▶ If required the screening of buildings by landscape plantings will be enhanced as part of the facility’s landscaping and vegetation management programme – where this is consistent with other environmental and bushfire hazard management requirements. ▶ Alternative painting colour schemes and materials may be trialled if necessary, in an attempt to reduce the facility’s visibility - where consistent with historic heritage requirements. ▶ Additional light hoods, glare foils, window shutters and other light control measures (such a duration switches or timers on

external lighting) may be installed to limit the facility's night-time visibility from surrounding areas.

- ▶ Investigations/corrective actions undertaken as a result of a complaint, spot-check, inspection, audit or incident will be documented and compiled within the Environmental Management Register.
 - ▶ Timescales will be identified for the completion of any necessary correction actions.
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5 Glossary of Terms

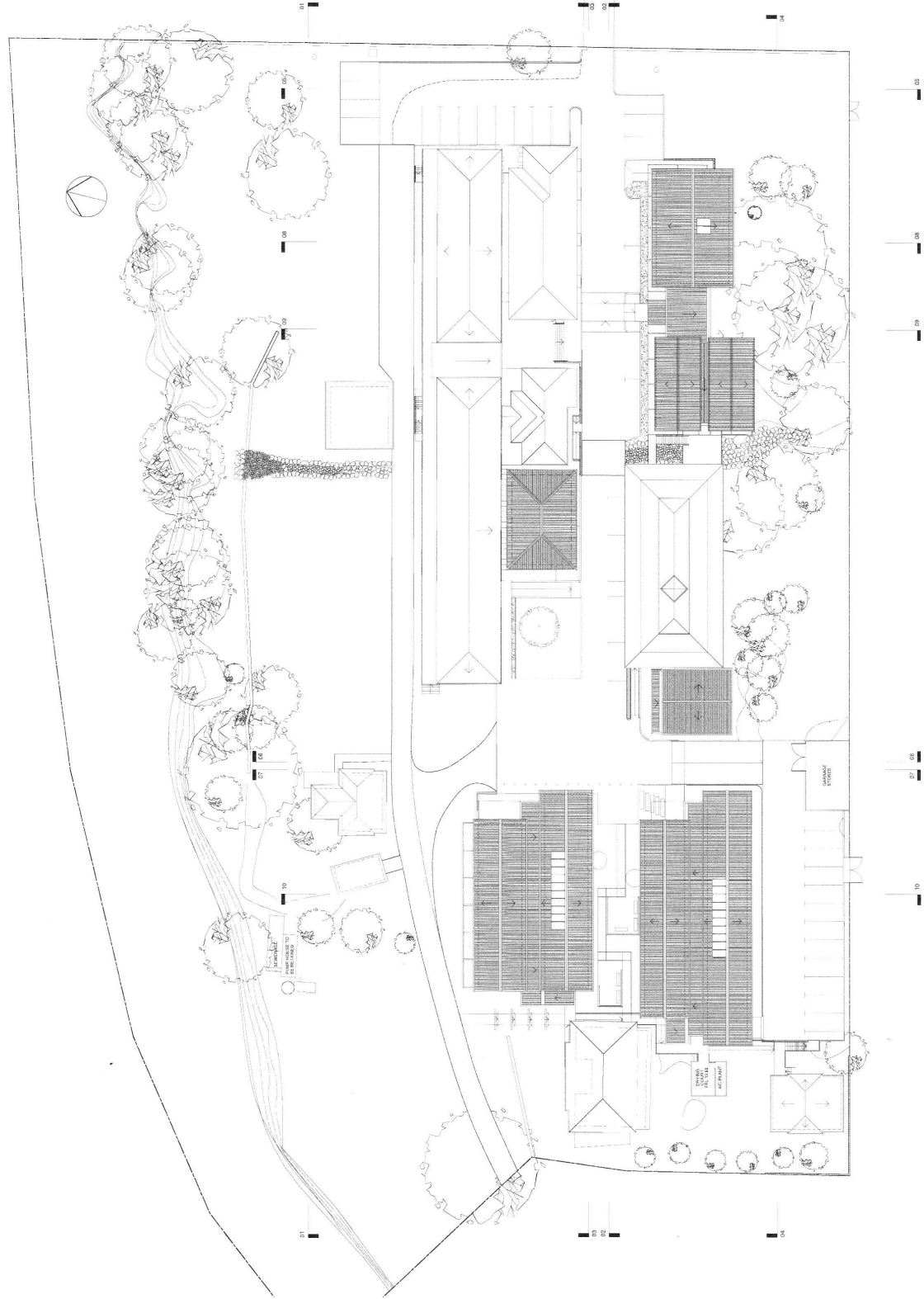
AFP	Australian Federal Police
AIPM	Australian Institute of Police Management
CBD	Central Business District
CEMP	Construction Environmental Management Plan
DECC	NSW Department of Environment and Climate Change
DEWHA	Australian Government Department of Environment, Water, Heritage and the Arts
EPA	NSW Environment Protection Authority
HGSM	The Hospitality and General Services Manger at the AIPM, or this function/position in any organisational restructure, with principal operational accountability and overall responsibility for day-to-day environmental management issues at the facility.
LA10	The noise levels that are exceeded for 10% of each sample period
LPG	Liquefied Petroleum Gas - Automotive LPG may be propane or a mixture of propane and butane, while bottled gas used for domestic purposes (such as cooking and heating) consists solely of propane.
MSDS	Material Safety Data Sheets
NPWS	NSW National Parks and Wildlife Service
PCB	Polychlorinated Biphenyl – a toxic organochlorine used extensively as fluids in electrical equipment such as transformers and capacitors. They are also used in pesticides, carbonless copier paper, fluorescent light ballast and other products.
Rain events	Rainfall in excess of 20mm in one hour, or more than 40mm over any consecutive 2 day period, as measured at the site.

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Appendix A
Preferred Project Scheme



Appendix B
Masterplan and Site Landscape Plan

