

**UNIVERSITY OF CANBERRA  
PUBLIC HOSPITAL**

Offset Management Plan  
EPBC Ref. 2013/6987

**INTERIM**

April 2014

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EPBC Ref. 2013/6987

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Prepared by  
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on behalf of  
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Report No. **8049/R02/V2**  
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# APPENDICES

## 1 TaMS Offset Site Endorsement

# 1.0 Introduction

Umwelt (Australia) Pty Limited (Umwelt) were engaged by the ACT Health Directorate to respond to the proposed impacts of developing the University of Canberra Public Hospital (UCPH) in Bruce. The UCPH development was determined to be a controlled action by the Commonwealth Department of the Environment (DoE) and is subject to assessment by Preliminary Documentation under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). As a component of this work, Umwelt have prepared this Offset Management Plan (OMP).

The Preliminary Documentation requires the provision of information on any offset measures which are available and achievable, in the event they are deemed to be required by the DoE. This Interim OMP has been prepared to accompany the Preliminary Documentation in the event that an offset is required to demonstrate the ACT Government's commitment to the project. The Interim OMP would be updated against the conditions of approval to ensure consistency.

## 1.1 Background

Ecological impacts associated with the development of the UCPH include the removal of 7.6 hectares of the EPBC listed critically endangered ecological community (CEEC), White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland (hereafter referred to as box gum woodland). At the impact site, this community exists in a derived state.

A range of measures to avoid or mitigate impacts on MNES will be implemented as part of the project, however due to residual and unavoidable impacts on box gum woodland, a biodiversity offset package may be required. Following assessment of the Preliminary Documentation, the DoE will determine whether an offset is required. Should this be required, this OMP will be updated to include relevant conditions of approval.

The proposed offset comprises greater than a 100 percent direct land component, with complementary establishment and management activities. These components are detailed in **Section 2.0**.

## 1.2 Purpose and Scope

The purpose of this OMP is to provide a framework for the implementation of ecological management actions, management strategies, procedures, controls and monitoring programs for the Offset Area. Specifically, the OMP aims to protect and enhance the condition of critically endangered box gum woodland within the Offset Area and increase local and regional biodiversity connectivity.

## 1.3 Regulatory Requirements

The DoE have determined the UCPH development to be a 'controlled action' under the EPBC Act due to it being assessed as likely to result in significant impacts on an EPBC listed ecological community.

As the project is currently being assessed, no approval conditions exist. This section will be updated following receipt of approval conditions.

## 1.4 Roles and Responsibilities

Implementation of the OMP will be primarily a responsibility of the ACT Government's Territory and Municipal Services (TaMS) Directorate, who are responsible for managing public land in the ACT.

Roles and responsibilities associated with the implementation of this OMP are presented in **Table 1.1** below.

**Table 1.1 – Roles and Responsibilities**

Title	Roles and Responsibilities
<b>Proponent</b>	<ul style="list-style-type: none"> <li>• assist TaMS to secure sufficient resources from ACT Treasury to implement this OMP.</li> </ul>
<b>TaMS</b>	<ul style="list-style-type: none"> <li>• authorise internal and external reporting requirements as well as subsequent revisions of this OMP;</li> <li>• coordinate the day to day implementation of this OMP, including the design and implementation of all ecological management activities;</li> <li>• ensure that the results of the OMP monitoring programs are utilised to refine completion criteria for the site as well as to evaluate the effectiveness of regeneration/rehabilitation practices so as to facilitate continual improvement;</li> <li>• periodically review progress against condition improvement targets;</li> <li>• ensure all internal and external reporting requirements are met;</li> <li>• ensure that all relevant records are effectively maintained;</li> <li>• ensure that personnel involved in carrying out and monitoring the OMP activities are appropriately qualified, licensed and experienced to undertake the task; and</li> <li>• manage/control access to biodiversity offset area.</li> </ul>
<b>TaMSStaff and Contractors</b>	<ul style="list-style-type: none"> <li>• receive training regarding controls on activities within the Offset Area; and</li> <li>• undertake activities in Offset Area in line with OMP.</li> </ul>

## 1.5 Authority Consultation

During preparation of this OMP, consultation has been undertaken with TaMS. TaMS would be responsible for the establishment and ongoing land management of the offset. This is discussed further in **Section 3.1**.

## 1.6 Offset Location and Land Zoning

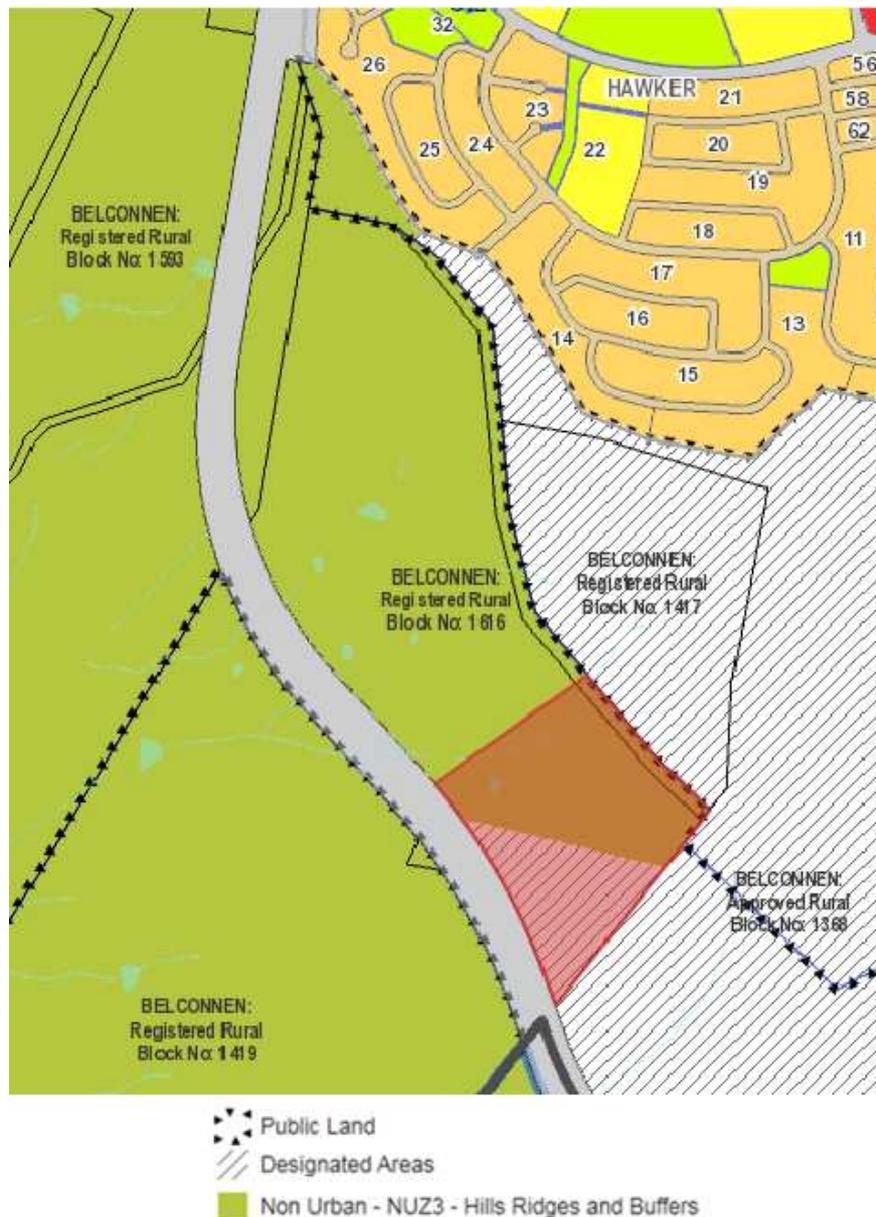
The Offset Area is located within Belconnen Rural Blocks 1616 and 1370, which are both Territory owned land. The site is currently zoned as 'NUZ3: Hills, Ridges and Buffer Areas' and is unleased, with the custodian of the site being TaMS. Block 1370 also contains an ACTEW easement.

The NUZ3 zone represents non-urban land for which there is a mandate for managing environmental, cultural, recreational and aesthetic values. While the broad objectives of the NUZ3 zone are largely consistent with that of land which is subject to the Nature Reserve overlay, one of the primary differences between these zones is that activities such as extensive agriculture can persist. When the offset is established, the land use zoning will be changed in the Territory Plan to include a 'PC: Nature Reserve' overlay (refer **Section 3.1**),

which will ensure management will focus on conservation. Agricultural use will not be permitted.

At the southern end of the Offset Area, the Territory Plan shows an area of approximately 2.9 hectares of 'Designated Land' overlay (refer **Figure 1.1**). Territory land that has special characteristics important to the national capital is defined as 'designated', and the responsibility for development within these areas lies with the National Capital Authority (NCA). The NCA would need to be consulted in addition to TaMS prior to offset establishment. The proposed offset site is highlighted in **Figure 1.1** in light red.

The surrounding area to the proposed offset (generally shown on **Figure 2.1**) has been identified as the ACT Government as a potential location for an advance offset, due to its landscape value, and presence of box gum woodland. This has not progressed beyond concept stage, and the area is still managed under rural agistment and subject to grazing.



**Figure 1.1 – Territory Plan Extract**

Source: ACTMAPi (2014)

## 2.0 Offset Description

### 2.1 Objectives and Targets

#### 2.1.1 Objectives

The primary objectives for management of the Offset Area are to enhance the quality of box gum woodland in the ACT, increase the extent of the community in the reserve system and improve connectivity between existing patches of the ecological community by providing a link between the Pinnacle and Kama Nature Reserves.

The specific objectives for offset management activities are to:

- enhance the ecological quality of existing box gum woodland within the Offset Area and protect it from degradation for the duration of the action's impact on box gum woodland; and
- improve connectivity between remnants of woodland within the Offset Area and adjoining reserve areas.

#### 2.1.2 Targets

In order to achieve the objectives in **Section 2.1.1**, the following targets have been developed to ensure all works are completed in accordance with this OMP. Targets may require review to ensure they meet the requirements of approval conditions.

- the Offset Area has been fenced;
- the Offset Area has been appropriately separated from adjacent rural land uses;
- the Offset Area has been appropriately connected to the adjacent nature reserve;
- an adaptive management process has been developed and implemented;
- the monitoring program is being implemented in accordance with **Section 4.0**; and
- the land use zoning of the Offset Area has been amended in the Territory Plan.

#### 2.1.3 Performance Indicators

The following performance indicators have been developed to assist in assessing the success of the management program. Performance indicators will be reviewed to ensure they meet the requirements of approval conditions.

- naturally regenerating areas within the Offset Area exhibit a flora species assemblage characteristic of the EPBC listed box gum woodland community, including a range of vegetation structural elements such as trees, shrubs, ground cover forbs and grasses, and litter as per the box gum woodland listing advice (Australian Government 2006)<sup>1</sup> and recovery plan (DECCW 2011)<sup>2</sup>. Measurable performance indicators for flora species assemblage will be developed after a baseline survey conducted in Spring 2015;

<sup>1</sup> Australian Government (2006) *White Box – Yellow Box – Blakely's Red Gum Grassy Woodlands and Derived Native Grasslands Listing Advice*, Department of the Environment and Heritage, Canberra.

<sup>2</sup> Department of Environment, Climate Change and Water NSW (2011) *National Recovery Plan for White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Derived Native Grassland*, Department of Environment, Climate Change and Water NSW, Sydney (May 2011).

- natural regeneration of both of the dominant overstorey species (yellow box and Blakely's red gum) is observed within the Offset Area at a density of one sapling per hectare. This is to be achieved within six years from the baseline assessment;
- impact from pest animals on habitat quality is minimised and controlled where possible (e.g. rabbit warrens, fox dens, etc.); and
- accurate records are being maintained substantiating all activities associated with the OMP and approval conditions.

## 2.2 Direct Offset

### 2.2.1 Land Component

Direct offsets are comprised of the land component totalling 19.5 hectares (including 15.5 hectares of box gum woodland) and will be transferred into Canberra Nature Park to be managed for biodiversity conservation and box gum woodland values in particular. To simplify fencing and land management requirements, the boundary was determined based on existing block boundaries. Due to this, a four hectare patch of *Eucalyptus macrorhyncha* Tableland Grass/Shrub Forest (ACT Vegetation Community 25) (Sharp *et al*, 2007)<sup>3</sup> has also been included within the offset site, however as it does not meet the definition of box gum woodland, it has not been included in any of the offset calculations.

The offset is located on part of Belconnen registered Rural Block 1616, and part of Rural Block 1370. It is situated between the existing Pinnacle Nature Reserve and William Hovell Drive. Directly to the south of William Hovell Drive is Kama Nature Reserve. The location and quality of the proposed offset is presented in **Figure 2.1**, outlined with a heavy black border.

The site was assessed by Umwelt in July 2013 and again rapidly in November 2013. These assessments found that the Offset Area was in considerably higher condition than the impact site. It contains areas of higher floristic and structural integrity, a lower abundance of perennial exotic pastures and a higher level of landscape connectivity. The offset contains 5 hectares of woodland with a relative quality value of 7 and 10.4 hectares of secondary grassland with a quality value of 5 (refer to Preliminary Documentation (Umwelt, 2014) for relative quality definitions). The secondary grassland area contains remnant eucalypts which, under appropriate management, are expected to facilitate natural regeneration of tree species in this area.

**Figure 2.1** includes general quality ratings for vegetation in the adjacent blocks in provided to highlight the quality of the offset site. Note however these areas have not been subject to detailed baseline surveys and are provided as indicative values only. It is expected that baseline surveys undertaken during appropriate seasons will verify these values and likely result in improvements to the map detail and assessed quality once annual native herbs are considered more holistically as part of the diversity within the ground layer vegetation.

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<sup>3</sup> Sharp, S., Macdonald, T., Kitchin, M. and Dunford, M. (2007). *Setting conservation targets for vegetation communities in the ACT, Final report to the Natural Resource Management Council*, ACT Parks Conservation and Lands, Canberra.



Legend

- Nature Reserve
- Proposed Offset Area

Quality

- |  |  |   |
|--|--|---|
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid black; margin-right: 5px;"></span> 0 - 1 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #ADD8E6; border: 1px solid black; margin-right: 5px;"></span> 4 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #008080; border: 1px solid black; margin-right: 5px;"></span> 7                |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #F0F0F0; border: 1px solid black; margin-right: 5px;"></span> 2     | <span style="display: inline-block; width: 15px; height: 10px; background-color: #66B3FF; border: 1px solid black; margin-right: 5px;"></span> 5 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #20B2AA; border: 1px solid black; margin-right: 5px;"></span> ACT 25           |
| <span style="display: inline-block; width: 15px; height: 10px; background-color: #E6E6FA; border: 1px solid black; margin-right: 5px;"></span> 3     | <span style="display: inline-block; width: 15px; height: 10px; background-color: #4682B4; border: 1px solid black; margin-right: 5px;"></span> 6 | <span style="display: inline-block; width: 15px; height: 10px; background-color: #008080; border: 1px solid black; margin-right: 5px;"></span> ACT 25 (Derived) |

Figure 2.1 – Offset Location and Surrounding Vegetation Quality

## Other Conservation Values

The Offset Area also contains potential habitat for pink-tailed worm-lizard (*Aprasia parapulchella*) and transitory and foraging habitat for superb parrot (*Polytelis swainsonii*) and other woodland birds. Both species are MNES, listed by the EPBC Act in addition to being listed in the ACT under the *Nature Conservation Act 1980* (NC Act).

Managing habitat characteristics for these species will be undertaken during ongoing site management by TaMS. Natural and assisted regeneration and relocation of woody debris will improve the quality of the site for superb parrot and woodland birds, which represent an additional value for the offset area. No revegetation works would be undertaken within the pink-tailed worm-lizard habitat.

## Community Involvement

The Friends of the Pinnacle Parkcare Group are actively involved in monitoring and improving local flora and fauna habitat within the Pinnacle Nature Reserve. Examples of activities undertaken by the groups include:

- weed management;
- erosion assessment and management;
- revegetation;
- communication, engagement and education;
- rabbit management;
- kangaroo monitoring; and
- fire management.

Parks and Conservation Services (PCS) will consult and engage with this group to seek their continued involvement in implementing conservation management works within the Offset Area.

### 2.2.2 Additional Direct Actions

Along with this direct land offset, a management program will also be implemented which will be aimed at:

- improving long term viability of the box gum woodland community (i.e. reduced weed component, sustainable grazing regime leading to increased recruitment of key species and pest management activities); and
- improving connectivity between the Pinnacle and Kama Nature Reserves through improvements to the quality and structural diversity of the Offset Area.

The proposed regeneration and improvement strategy for the Offset Area will be a combination of:

- strategies to encourage passive regeneration of native vegetation species;
- assisted regeneration through revegetation with native species; and
- measures to control extant weed species across the site.

**Section 3.3** contains the indicative costing for management of the Offset Area.

### **Fencing and Signage**

The Offset Area will be fenced with stock proof, wildlife friendly fencing to manage stock access, as the site is currently part of a larger block used for stock grazing. Fencing specifications will be determined by TaMS.

Signage indicating the presence of the Offset Area will be erected upon formalisation of the offset and acceptance into Canberra Nature Park.

### **Weed Management**

The extent of weeds within the Offset Area is relatively low. Saffron thistle and St John's wort are the dominant exotic species, while woody weeds such as sweet briar are also present. Weed management requirements will be determined by TaMS during baseline surveys and ongoing operational monitoring. Weed management will also be undertaken in adjacent areas to prevent further weed infestation of the Offset Area.

All weed control activities in the Offset Area would be undertaken by appropriately licensed contractors who are familiar with the native vegetation of the region. In addition to the target weed species, contractors need to be familiar with native grasses, herbs and forbs which occur on the site. Prior to the conduct of weed control activities, TaMS will ensure contractors are briefed on the area's values, weeds to be targeted, areas to avoid and other matters to ensure avoidable secondary impacts do not occur (e.g. spray drift and impact to non-target species).

A summary of the weed management activities carried out on site during each year will be included as part of annual reporting.

### **Pest Animal Management**

Pest animal species within the Offset Area have the potential to increase impacts on existing native species, particularly via predation, selective grazing and habitat destruction. The following management controls will be undertaken to control pests and feral animals in the Offset Area:

- regular monitoring of Offset Area to determine the impact of pests and feral animals, particularly on natural regeneration. This will be undertaken on an annual basis and will include a particular focus on foxes, rabbits and kangaroos; and
- based on the monitoring, pests and feral animal control works would be undertaken periodically to ensure the suppression of the animals. The control works will be undertaken in accordance with the requirements for pest and feral animal control in the neighbouring Pinnacle and Kama Nature Reserves and consistent with programs on neighbouring properties.

### **Natural Regeneration**

Much of the box gum woodland on the site is expected to regenerate naturally following the removal of weeds and alleviation of grazing pressure.

The offset management program does not initially include an allowance for assisted regeneration; however the requirement for assisted regeneration (i.e. seeding/tubestock) within extant box gum community areas will be assessed through ongoing monitoring and adaptive management.

The drainage gully on the north-western boundary of the site will be revegetated as a component of the ACT Government's Woodlands Restoration Project. This is not an action specifically targeting box gum woodland and therefore has not been included as a component of this offset program. The works will however, improve connectivity between the Pinnacle and Kama Nature Reserves particularly for woodland birds and superb parrots. It is considered complementary funding by the ACT Government which will improve the landscape function of the offset.

### **Assisted Regeneration**

If the monitoring program determines that assisted regeneration is required, the following principles will be applicable to revegetation activities within the Offset Area:

- all planting or seeding within revegetation areas would be designed with structural and floristic diversity suitable to meet the vegetation condition improvement targets outlined in **Section 2.1**, and ensure the resultant vegetation community is not inconsistent with the definition of box gum woodland under the EPBC Act;
- revegetation areas would be subject to a formal care and maintenance program that would be developed to include follow up watering, replacement of tree guards and failed plantings; and
- measures would be installed to protect the integrity of revegetation areas such as the potential inclusion of temporary fencing and tree guards to reduce herbivory and increase seedling survival rates. The aim of the progressive fencing program (if required) would be to protect revegetation areas until they have developed a natural resilience to disturbance such as trampling and occasional grazing.

### **Woody Debris**

Habitat quality and structural diversity would be improved with the relocation of woody debris (fallen timber) into the Offset Area. The amount of woody debris required would be determined as a component of the baseline surveys.

Fallen timber may be sourced from the impact area during site clearing, or from an alternate source as determined by TaMS.

## **2.3 Other Compensatory Measures**

There are no 'other compensatory measures' that form part of the offset package as a result of the direct offset exceeding the 100 per cent of the target offset value.

## 3.0 Offset Management

### 3.1 Process for Establishing the Offset

Following assessment of the Preliminary Documentation, the DoE will determine whether an offset is required. If it is required, this OMP will be updated to include any relevant conditions of approval, and timeframes for offset establishment.

The Offset Area will be incorporated in perpetuity into the Canberra Nature Park as part of the Pinnacle Nature Reserve for management, protection and enhancement of the box gum woodland described in **Section 2.1**.

TaMS are currently responsible for the management of the Offset Area. This will continue following the completion of approval requirements, however the site's land use zoning in the Territory Plan will be changed from 'NUZ3: Hills, Ridges and Buffer Areas' to 'PC: Nature Reserve'. The site will also be fenced to separate it from surrounding rural land and managed in accordance with requirements for a Nature Reserve.

### 3.2 Adaptive Management

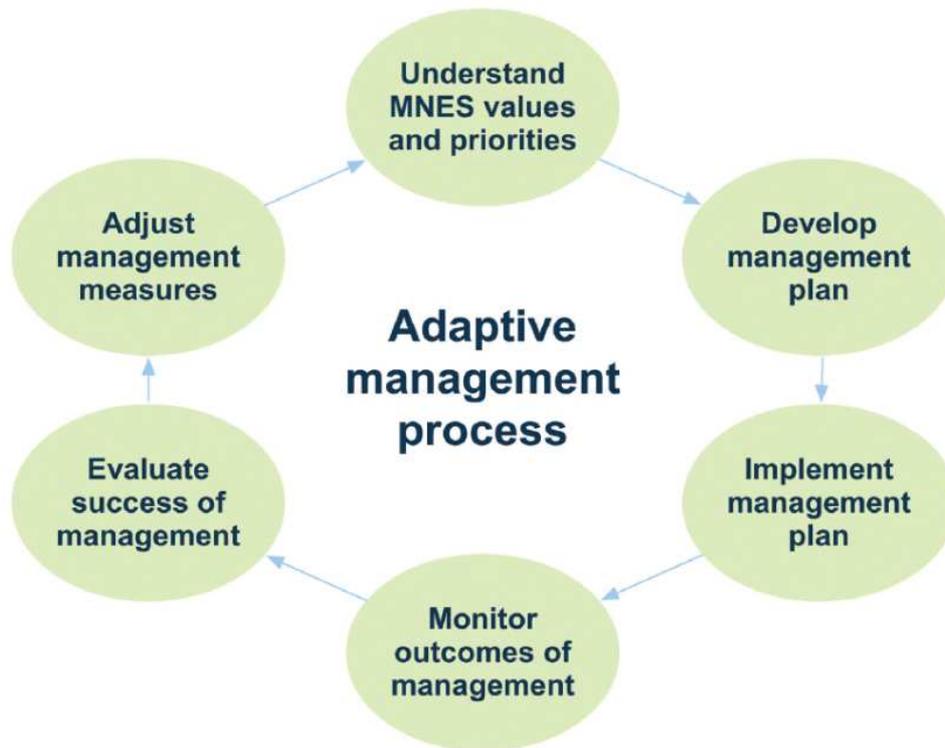
A strong feedback loop between monitoring and management will be established. Adaptive management of the Offset Area will be responsive to any new ecological data that may arise through the monitoring described in **Section 4.1**, legislative change or any other studies completed at the site. This will enable a flexible approach to management requirements of the Offset Area, allowing ongoing feedback and refinement of the management strategy.

Adaptive management will be a key mechanism to address the risks to the successful implementation of this OMP. This will involve ongoing evaluation of management measures required to address issues such as weed infestation, bushfire, feral animals and revegetation failure.

The guide to undertaking strategic assessments (Australian Government, 2012)<sup>4</sup> describes the framework of adaptive management as a systematic process for continually improving management practices through learning from the outcomes of previous management. **Figure 3.1** is reproduced from the guide and illustrates the process of adaptive management to be implemented in this OMP.

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<sup>4</sup> Australian Government (2012) *A Guide to Undertaking Strategic Assessments: Environment Protection and Biodiversity Conservation Act 1999*, Department of Sustainability, Environment, Water, Population and Communities (November 2012).



**Figure 3.1 – Adaptive Management Process**

*Source: Figure 2 in Australian Gov't (2012)*

### 3.3 Offset Management Program

The program as shown in **Table 3.1** details the direct actions and an estimate of the associated investment required by the ACT Government to improve the quality and resilience of box gum woodland in the Offset Area.

**Table 3.1 – Management Actions: Planning and Survey Works**

Activity	Description	Responsibility	Estimated Timeframe For Completion	Estimated Budget 2015-16 to 2017-18	Estimated Ongoing Operational Costs (p.a.)
Environment Impact Statement (EIS)	Seek advice from CPR to determine if an EIS is required before undertaking any works which could impact the soil or vegetation.	PCS with advice from CPR	As required	In-kind contribution	In-kind contribution
Consult with ACT Heritage Unit	Inform the ACT Heritage Unit of operational or habitat restoration works which could impact potential cultural heritage sites within the offset areas.	PCS	As required	In-kind contribution	In-kind contribution
Consultation with Friends of the Pinnacle	Consult with the Friends of the Pinnacle Community Group regarding plans to extend the Pinnacle Nature Reserve and the required land management actions within the offset area.	PCS	As soon as the offset site is approved	In-kind contribution	In-kind contribution

**Table 3.2 – Proposed Management Actions: Capital Improvements Works**

Proposed Activity	Description of Proposed Works	Responsibility	Estimated Timeframe For Completion	Estimated Budget 2015-16 to 2017-18	Estimated Ongoing Operational Costs (p.a.)
Fencing	Replacement or repair of offset boundary and internal fences.	PCS	2015-16	15,000.00	2,500.00
Stock Grazing Preparation	Clean out existing dam and re-configure the existing stock water infrastructure.	PCS	2015-16	13,000.00	1,500.00
Tracks and Trails	To improve existing tracks and crossings over drainage lines.	PCS	2016-17	15,000.00	-
General Information Signage	General park signs.	PCS	2016-17	5,000.00	500.00

**Table 3.3 – Proposed Management Actions: Operational Works**

Proposed Activity	Description of Proposed Works	Responsibility	Estimated Timeframe For Completion	Estimated Budget 2015-16 to 2017-18	Estimated Ongoing Operational Costs (p.a.)
Weed control	<ul style="list-style-type: none"> <li>reduce the impact of weeds of concern, namely: saffron thistle, St John's wort and sweet briar;</li> <li>prevent further spread of Phalaris; and</li> <li>spot spraying is the preferred method of control.</li> </ul>	PCS	2015-16 2016-17 2017-18	20,000.00 20,000.00 20,000.00	6,000.00
Vertebrate pest control (Rabbits, and foxes)	<ul style="list-style-type: none"> <li>undertake a low risk control program;</li> <li>undertake spotlight counts in spring and autumn;</li> <li>map active rabbit warrens in winter and fumigate in spring;</li> <li>follow up fumigation may be necessary; and</li> <li>undertake fox control programs as practicable.</li> </ul>	PCS	2015-16 2016-17 2017-18	5,000.00 5,000.00 5,000.00	1,600.00
Gully erosion	Minor erosion abatement works required within gully.	PCS	2015-16 and then as required	3,000.00	500.00
Revegetation	<ul style="list-style-type: none"> <li>revegetation works to improve connectivity between the Pinnacle and Kama Nature Reserves;</li> <li>assisted regeneration of box gum woodland (if required); and</li> <li>manage regeneration in potential pink-tailed worm-lizard habitat.</li> </ul>	PCS	As determined by monitoring program	3,000.00	
Bushfire fuel reduction	Slash the Outer Asset Protection Zone located along the southern boundary to a distance of 20 metres from the fence line paralleling William Hovell Drive. Implement controls for slashing e.g. do not slash lower than 20 centimetres, removed slashed material from site, and include weed hygiene controls for contractors.	PCS	Annually as required	3,000.00	1,000.00
Woody debris relocation	Source fallen timber and relocate to offset site.	PCS	2017/18	TBC	TBC

**Table 3.4 – Proposed Management Actions: Monitoring Box Gum Woodland**

<b>Proposed Activity</b>	<b>Description of Proposed Works</b>	<b>Responsibility</b>	<b>Estimated Timeframe For Completion</b>	<b>Estimated Budget 2015-16 to 2017-18</b>
Box Gum Woodland Monitoring	Engage a suitably qualified expert to undertake a baseline quality assessment of the Box Gum Woodland community with follow up monitoring at 3, 6 and 10 years.	PCS to engage a suitably qualified expert	2015-16, 2018-19, 2021-22 and 2025-26	20,000.00

**Table 3.5 – Proposed Management Actions: Management Resources**

<b>Proposed Activity</b>	<b>Description of Proposed Works</b>	<b>Responsibility</b>	<b>Estimated Timeframe For Completion</b>	<b>Estimated Budget 2015-16 to 2017-18</b>	<b>Estimated Ongoing Operational Costs (p.a.)</b>
Staffing	To deliver the actions outlined in this plan resources to support 0.1 FTE of a Senior Ranger (Ranger Grade 3) position and vehicle are required.	PCS	2015-16 to 2018-19	37,500.00	13,000.00
Training	All personnel, including contractors, involved in managing the offset area must be trained in the requirements and appropriate management of box gum woodland and pink-tailed worm-lizard habitat.	PCS and CPR	As needed	In-kind contribution	In-kind contribution

## 4.0 Reporting and Review

### 4.1 Offset Monitoring Program

The Offset Area will be subject to ongoing monitoring and maintenance actions to ensure that the area progresses towards meeting the objectives and targets set out in **Section 2.1** in a timely manner. The program will monitor the success of the management actions, in addition to compliance with the approval conditions, against performance indicators described in **Section 2.1.3**.

A baseline survey will be completed in the first year of offset establishment (Spring 2015). This will verify current conditions, vegetation quality, and any specific habitat requirements (e.g. locations for woody debris placement, and extent of pink-tailed worm-lizard habitat). This baseline survey will allow the development of measurable performance indicators for ongoing monitoring.

Monitoring of operational conditions such as weed control, pest animals, erosion and revegetation would be part of an ongoing program delivered by Parks Conservation Services. This monitoring will identify any corrective actions required or whether additional funding is required to achieve targets.

The quality of the box gum woodland community will be monitored 3, 6 and 10 years following offset establishment and will be undertaken in a manner consistent with the method used for the baseline survey, and the monitoring of other offset areas.

Monitoring results will be assessed and utilised in the continual improvement of restoration techniques and will be documented in the annual report. Monitoring will also identify when the offset meets the performance criteria and the DoE can sign off on its success.

### 4.2 Record Keeping

TaMS will maintain accurate records substantiating any activities associated with or relevant to the conditions of approval, including measures taken to implement the OMP.

### 4.3 Annual Report

An annual report will be completed regarding management works during each calendar year. The annual report will contain the following information:

- compliance with each of the conditions of approval;
- description of implementation of the OMP as specified in the conditions of approval;
- rehabilitation and management activities undertaken within the reporting period, including estimated costs;
- results of monitoring events for the reporting period; and
- required amendments to management or monitoring processes as identified by the adaptive management mechanism.

Utilising the adaptive management mechanism outlined in **Section 4.4**, the results of monitoring and management works undertaken will be utilised to inform updates to the management controls to be undertaken in the Offset Area.

Annual reporting and monitoring will continue for 10 years, or until successful implementation of the OMP, i.e. all the targets in **Section 2.1.2** and performance indicators in **Section 2.1.3** are met consistently for three consecutive years. Details of reporting will be reviewed following receipt of Conditions of Approval.

#### **4.4 Review of OMP**

This OMP will be reviewed internally every five years. The OMP may be updated in between this period if:

- updated management techniques are identified; or
- the adaptive management framework identifies that current management methods are not effective and require amendment.

Amendments to the OMP in response to adaptive management and continual improvement requirements that are not inconsistent with the conditions of approval do not need to be submitted to the DoE for approval.

Notwithstanding this, if the ACT Government wishes to undertake any activities other than in accordance with the OMP as specified in the conditions of approval, a revised version of the OMP must be submitted to the DoE for the Minister's written approval.

## 5.0 References

Australian Government (2012). *A Guide to Undertaking Strategic Assessments: Environment Protection and Biodiversity Conservation Act 1999*. Department of Sustainability, Environment, Water, Population and Communities.

Australian Government (2006). *White Box – Yellow Box – Blakely’s Red Gum Grassy Woodlands and Derived Native Grasslands Listing Advice*. Department of the Environment and Heritage, Canberra.

Department of Environment, Climate Change and Water (2011). *National Recovery Plan for White Box - Yellow Box - Blakely’s Red Gum Grassy Woodland and Derived Native Grassland*. Department of Environment, Climate Change and Water NSW, Sydney.

Sharp, S., Macdonald, T., Kitchin, M. and Dunford, M. (2007). *Setting conservation targets for vegetation communities in the ACT*, Final report to the Natural Resource Management Council, Parks Conservation and Lands, Canberra.