

# Garden Suburb BSSAR Vegetation Management Plan Lot 1 DP1168657, Lot 50 DP 1301215 & Lot 10 DP1011323 9A, 69 & 82 Myall Road, Garden Suburb, NSW

Prepared for: Landcom ABN 79 268 260 688

Prepared by: Anderson Environment and Planning

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**Biodiversity Stewardship Agreement ID number:** 36999

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## Cover Photo: Site photo within Biodiversity Stewardship Site

#### **Declaration of Accuracy**

In making this declaration, I am aware that section 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

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#### **Document Control**

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# **Table of Contents**

1.0	Introd	duction	5
1.1	l Docu	ment Referencing	5
1.2	2 Biodi	versity Stewardship Agreements	6
	1.2.1	What is a BSA	6
	1.2.2	Total Fund Deposit	6
	1.2.3	BSA Management Plan	7
	1.2.4	BSA Monitoring	7
	1.2.5	Registering the agreement on title and the public register	7
1.3	3 Cond	litions of EPBC 2014/7217	9
2.0	Site 0	Context and Existing Condition	21
2.1	l Proje	ct Description and Objectives of BSA/VMP	21
2.2	2 Envir	onmental Management Roles and Responsibilities	25
2.3	<b>S</b> Vege	tation Descriptions and Conditions	26
	2.3.1	PCT 1638 <sup>V</sup> – Moderate Condition	26
	2.3.2	PCT 1638 <sup>V</sup> – Moderate Condition – High Weed Load	27
	2.3.3	PCT 1649 – Moderate Condition	27
	2.3.4	PCT 1627 – Moderate Condition	28
	2.3.5	PCT 1627 – Poor Condition	28
3.0	Rege	neration Approach and Targets	29
3.1	l Integ	rated Regeneration Approach for BSA Lands	29
	3.1.1	Reconstruction Approach	29
	3.1.2	Facilitated Regeneration Approach	30
	3.1.3	Natural Regeneration Approach	
3.2		agement Zones	
3.3	3 Tetra	theca juncea – Black-eyed Susan Habitat	33
3.4	l Ecos	ystem Targets	35
	3.4.1	BSA Land Targets	36
4.0	Site F	Preparation	41
4.1	l Temp	porary Fencing	41
4.2	2 Site i	nduction	
	4.2.1	Emergency Contacts and Procedures	
4.3		d / Pathogens / Disease Control	
4.4		on and Sedimentation Control	
4.5		ish Removal	
4.6	Mine	Subsidence Remediation	
	4.6.1	Specific Machinery Required to Backfill the Potholes	
	4.6.2	Minimum Width for Each Access Track	44
	4.6.3	Minimum Turning Areas Required for the Machinery	44
	4.6.4	Minimum Area of Impact for Each Pothole Repair	
	4.6.5	Active Restoration	44



4	.6.6	Hygiene Protocols	45
4.7	Perma	anent Fencing	45
4.8	Trail F	Restoration	46
4.9	Monit	oring and Reporting	46
5.0	Imple	mentation of Regeneration	47
5.1	Weed	Management	47
5	5.1.1	Priority Weeds for Onsite Management	47
5	5.1.2	Sequential Weed Control	50
5	5.1.3	Herbicides	50
5	5.1.4	Reuse of Biomass	50
5.2	Planti	ng of Native Vegetation	51
5.3	Pest S	Species	51
5	5.3.1	Other Management Activities	52
5.4	Projec	ct Management	52
5.5	Monit	oring and Reporting	53
5	5.5.1	Baseline Data	53
5	5.5.2	Bush Regeneration Contractor Monthly Summary of Work	55
5	5.5.3	Monitoring by Project Ecologist	55
5	5.5.4	Black-eyed Susan Monitoring	55
5	5.5.5	Reporting	56
5.6	Interv	entions	56
5	5.6.1	Fire	
5.7	Risk E	Evaluation	57
5.8		Audit and Review	
6.0	Trigge	er Action Response Plan	64
7.0	Refer	ences	73
Tab	les		
		nditions of EPBC Approval	9
		Objectives and Approach	
Table	3 – Role	es and Responsibilities	25
Table	4 – Reg	eneration Targets for Management Zones	37
Table	5 – Inte	rvention Steps	56
Table	6 – Risł	Matrix	57
Table	7 – Risł	Analysis	58
Table	8 – Pro	posed Works Schedule	61
	9 <b>–</b> TΔI		64



# **Figures**

Figure 1 – Site Location Map	23
Figure 2 – Boundary Management Map	24
Figure 3 – Threatened Fauna Species Management	32
Figure 4 – Threatened Flora Species Management	34
Figure 5 – Weed Management Zones	49
Figure 6 – Monitoring Map	54

# **Appendices**

Appendix A – Weed Species Found within the BSA Lands

Appendix B – Supplementary Planting Schedule

Appendix C – TFD CST

Appendix D – BSSAR Management Plan CST

 $Appendix \ E-CVs$ 



# **Glossary**

In this Vegetation Management Plan, unless a contrary intention appears, a capitalised word or words has the meaning given in the corresponding row in the table below. Other terms are defined in the Dictionary.

Terms	Definitions
Biodiversity Stewardship Agreement Site	Biodiversity Stewardship Agreement Site (the BSA Site/BSA Lands) is the retained vegetation within Lot 1 DP1168657, Lot 50 DP 1301215, and Lot 10 DP1011323, known as 9A, 69 & 82 Myall Road, Garden Suburb, NSW.
Biodiversity Stewardship Site Assessment Report	The document described in <i>Biodiversity Stewardship Site Assessment Report, Proposed BSA Site at 9A, 69 &amp; 82 Myall Road, Garden Suburb, NSW. Rev 06</i> (AEP, April 2024). Agreement ID number 36999.
Biodiversity Stewardship Site Management Actions Map	The map showing Management Zones, management features (e.g. fire trails) and the location of Management Actions in the Biodiversity Stewardship Site.
Black-eyed Susan	The EPBC Act listed threatened species Tetratheca juncea.
Black-eyed Susan Habitat	Any area which supports the Black-eyed Susan, where the species may occur, and any known Black-eyed Susan habitat as defined by Commonwealth of Australia 2008.
BSA Management Plan	Appendix D of this VMP.
Department	The Australian Government agency responsible for administering the EPBC Act.
Ecological Burn	Burning of Native Vegetation undertaken to help stimulate Native Plant regeneration, control weeds and enhance Biodiversity.
Ecological Burn Map	The map included in the Fire for Conservation Management Plan identifying the areas of the Biodiversity Stewardship Site to be burnt, based on broad habitat zones, during each Ecological Burn.
Ecological Burn Unit	An area within the Biodiversity Stewardship Site comprised of one or more Management Zones over which the same regime of ecological burning is applied.
Ecosystem Credit	The meaning given in the Biodiversity Assessment Method:  Note: This definition may change from time to time, with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was:  "a measurement of the value of threatened ecological communities, threatened species habitat for species that can be reliably predicted to occur within a PCT, and PCTs generally. Ecosystem credits measure the loss in biodiversity values at a development site and the gain in biodiversity values at a biodiversity stewardship site".
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999.
Feral Pest	Pest animal species not native to Australia including fox, cat, pig, goat, horse, avian pests and other miscellaneous species.



Terms	Definitions
Fertiliser	The meaning given in the <i>Biosecurity Act 2015</i> (NSW):  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "(a) a substance that consists of or contains nitrogen, phosphorus or potassium (or any combination of nitrogen, phosphorus or potassium) and is manufactured, represented, sold or used as a means for directly or indirectly supplying nutriment for the purpose of enhancing the development, productivity, quality or reproductive capacity of vegetation, other than a substance excluded from this definition by the regulations, or  (b) any other substance prescribed by the regulations to be a fertiliser".
Fire for Conservation Management Plan	The plan titled "Fire for Conservation Management Plan" included in Section 2 of the BSA Management Plan.
High Threat Exotic Plant Cover	The meaning given to it in the Biodiversity Assessment Method:  Note: The definition may change from time to time, with changes in the Biodiversity Assessment Method, but on the Agreement Date this meaning was "plant cover composed of vascular plants not native to Australia that if not controlled will invade and outcompete native plant species".
High Threat Exotic (HTE) Species	A vascular plant not native to Australia that if not controlled will invade and outcompete Native Plant species. Also referred to in this Attachment as High Threat Weed Species.
Hollow- dependent Threatened Species	Threatened Species for which tree hollows (sometimes of a particular size or with particular characteristics) are a key component of their habitat and are critical for the persistence of that species in the landscape.
Integrated Feral Pest Management Plan	The plan titled "Integrated Feral Pest Management Plan" included in Section 5 of the BSA Management Plan.
Integrated Weed Management Plan	The plan titled "Integrated Weed Management Plan" included in Section 6 of the BSA Management Plan.
Large Woody Debris	Large, fallen dead tree branches and trunks.
Living Ground Cover	All living vegetation below 1m in height including native and non-native ground cover species.
Local Land Services	The statutory corporation established under the <i>Local Land Services Act 2013</i> (NSW).
Monitoring Plan	The plan titled "Monitoring Plan" included in Section 7 of the BSA Management Plan.
Native Vegetation Management Plan	The plan titled "Native Vegetation Management Plan" included in Section 3 of the BSA Management Plan.
Other Weed Species	A plant not native to Australia and not otherwise identified as a High Threat Weed Species.



Terms	Definitions
PCT	Plant Community Type.
Pesticide	The meaning given in Section 5 of the <i>Pesticides Act 1999</i> (NSW):  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "(a) an agricultural chemical product (within the meaning of the Agvet Code), or (b) a veterinary chemical product (within the meaning of the Agvet Code) that: (i) is represented as being suitable for, or is manufactured, supplied or used for, the external control of ectoparasites of animals, and (ii) is concentrated and requires dilution or mixing in water before use, and (iii) is not prescribed under the Stock Medicines Act 1989 as a low-risk veterinary chemical product. a pesticide continues to be regarded as a pesticide even when it is mixed with some other substance (whether or not the other substance is a pesticide). However, a pesticide does not include a prescribed mixture or a mixture of a prescribed class or description".
Photo Point	A location within the Biodiversity Stewardship Site and identified in Part 9.2 of Section 1 of the BSA Management Plan at which a series of photographs is taken in all directions (360°) for the purpose of monitoring change in vegetation condition over time.
Protected Matter	A matter protected under a controlling provision in Part 3 of the EPBC Act for which this approval has effect.
Rubbish	Any anthropogenic waste material other than that identified in this Management Plan as being used to achieve a specific biodiversity management purpose.
Sediment Trap	A temporary or permanent structure used to collect, trap and store sediment to prevent entry of sediment to a waterway.
Species Credits	The meaning given in the Biodiversity Assessment Method:  Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "the class of biodiversity credits created or required for the impact on threatened species that cannot be reliably predicted to use an area of land based on habitat surrogates. Species that require species credits are listed in the Threatened Biodiversity Data Collection".
Species Polygon	An identification of the area or count and location of the suitable habitat for a Species Credit species on the Biodiversity Stewardship Site, prepared as part of the Biodiversity Stewardship Site Assessment Report.



Terms	Definitions
	The meaning given in the <i>Local Land Services Act 2013</i> (NSW), and including any animal declared to be stock under the <i>Local Land Services Regulation 2014</i> (NSW):
Stock	Note: This definition may change from time to time with changes in Law, but on the Agreement Date the meaning was:  "cattle, horses, sheep, goats, camels, alpacas, llamas, pigs, deer, ostriches, emus or, in relation to any specified provision or provisions of this Act, any other kind of animal declared by the regulations to be stock for the purposes of that provision or those provisions".
	Planting of locally indigenous native plants in one or more areas of the Biodiversity Stewardship Site to:
Targeted Supplementary Planting	<ul> <li>a) increase Native Plant species richness and foliage cover of a vegetation zone above the level determined for management gain; and/or</li> <li>b) restore or enhance the native plant species composition and structure of recognisable PCTs; and/or</li> <li>c) improve habitat suitability for specific Threatened Species.</li> </ul>
	The meaning given to it in the Biodiversity Assessment Method:
Threatened Biodiversity Data Collection	Note: This definition may change from time to time with changes in the Biodiversity Assessment Method but on the Agreement Date the meaning was "part of the BioNet database, published by DPIE (previously the Office of Environment and Heritage) and accessible from the BioNet website at <a href="https://www.bionet.nsw.gov.au">www.bionet.nsw.gov.au</a> ".
Threatened Species Habitat Management Plan	The plan titled "Threatened Species Habitat Management Plan" included in Section 4 of the BSA Management Plan.
Threatened Species Habitat map	The map of Threatened Species locations and Species Polygons within the Biodiversity Stewardship Site.
Vegetation	The meaning given to 'plot' in the Biodiversity Assessment Method and described in Section 5.3.4 of the Biodiversity Assessment Method.
Integrity Survey Plot	Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "an area within a vegetation zone in which site attributes are assessed".
	The meaning given in the Biodiversity Assessment Method:
Vegetation Zone	Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "a relatively homogenous area of native vegetation on a development site, land to be biodiversity certified or a biodiversity stewardship site that is the same PCT and broad condition state".



Terms	Definitions
VMP Land	Vegetation Management Plan Land is the retained vegetation within the Biodiversity Stewardship Agreement Site, located within Lot 1 DP1168657, Lot 50 DP 1301215, and Lot 10 DP1011323, known as 9A, 69 & 82 Myall Road, Garden Suburb, NSW, specifically related to track access and pothole remediation areas.  It is to be noted that Lot 50 DP 1301215 used to be identified as Lot 100 DP 811772, updates to reports have been made to latest reference.



# 1.0 Introduction

Anderson Environment & Planning (AEP) have undertaken the necessary investigations to inform the production of a Vegetation Management Plan (VMP) for the retained vegetation within the Biodiversity Stewardship Agreement Site (the BSA site) located within Lot 1 DP1168657, Lot 50 DP 1301215, and Lot 10 DP1011323, known as 9A, 69 & 82 Myall Road, Garden Suburb, NSW. The VMP is required to satisfy conditions of EPBC 2014/7217.

The current iteration of the Biodiversity Stewardship Site Assessment Report (BSSAR) for the BSA Site is:

Biodiversity Stewardship Site Assessment Report, Proposed BSA Site at 9A, 69 & 82 Myall Road, Garden Suburb, NSW. Rev 06 (AEP, April 2024). Agreement ID number 36999.

The BSSAR is currently with the legal teams of Landcom and the Department for review and contract preparation.

The major risk to EPBC-listed matters concerns potential impacts of the Project on the EPBC-listed threatened species (Vulnerable) Black-eyed Susan (*Tetratheca juncea*) habitat from backfilling of mine subsidence areas and construction of the proposed residential development. The VMP within the BSA lands covers the establishment and management of retained vegetation to achieve the following:

- Conserve all Black-eyed Susan habitat;
- Improve the ecological condition of Black-eyed Susan within five (5) years; and
- To prevent impacts on Black-eyed Susan habitat from backfilling of mine subsidence areas and residential development and use of the development area.

The whole BSA Management Plan has been provided within the VMP however impacts associated with the EPBC requirements are outlined in Management Zone 6 & 7 which is specifically related to pothole remediation.

The VMP is required to satisfy conditions of EPBC 2014/7217 to avoid Project construction impacts (direct and indirect) on Protected Matters, and the environment on and/or outside Commonwealth land. The BSA Site totals 27.97ha, consisting of 25.56ha of native vegetation. The proposed development area is approximately 10.59ha, with approximately 10.4ha containing native vegetation suitable for Black-eyed Susan excluding cleared/managed areas on the periphery of the development boundary. Therefore, a buffer is provided (0.19ha) for any additional impacts that may occur, specifically for the pothole remediation within the VMP lands which was calculated out to equate to 0.181ha. A total of 25.56ha of Black-eyed Susan habitat will be conserved within the Biodiversity Stewardship Agreement (BSA) and managed in perpetuity under the BSA. To meet the EPBC Conditions of consent AEP has extracted the first five years of the BSA to generate the VMP.

# 1.1 Document Referencing

In preparing this plan, reference has been made to the following documents:

- Biodiversity Stewardship Site Assessment Report, Proposed BSA Site at 9A, 69 & 82 Myall Road, Garden Suburb, NSW. Rev 06 (AEP, April 2024). Agreement ID number 36999.
- Anderson Environment & Planning (2024). Garden Suburb BSA Vegetation Management Plan at 9A, 69 & 82 Myall Road, Garden Suburb, NSW (Lot 1 DP1168657, Lot 50 DP 1301215 and, Lot 10 DP1011323).
- KCE Pty Ltd Site Specific WHS & Environmental PROJECT MANAGEMENT PLAN Job no 24026, Garden Suburb Subdivision, Intersection Upgrade & Stewardship Site Work Address:



Myall Road, Hillsborough which was provided within the Hillsborough (EPBC 2014/7217) Construction Environmental Plan 17 July 2024.

 Construction Environment Management Plan – Retained Lands and Road Works - Myall Road, Hillsborough, NSW EPBC Ref - 2014/7217 Notice of Approval for Residential Development, Hillsborough, NSW Unpublished report by AEP 17 June 2024. Job No: 24026

For the purposes of referencing, this document should be cited as:

 Anderson Environment & Planning (2024). Garden Suburb BSA Vegetation Management Plan at 9A, 69 & 82 Myall Road, Garden Suburb, NSW (Lot 1 DP1168657, Lot 50 DP 1301215 and Lot 10 DP1011323).

## 1.2 Biodiversity Stewardship Agreements

Part 5 of the *NSW Biodiversity Conservation Act, 2016* (BC, Act) defines and controls who and how Biodiversity Stewardship Agreements (BSA) are made over land within NSW.

This Vegetation Management Plan is extracted from the first five (5) years of the in perpetuity fully funded conservation agreement made with the Minister responsible for the *Biodiversity Conservation Act 2016* (NSW). and the land owner (s).

#### 1.2.1 What is a BSA

A Biodiversity Stewardship Agreement specifies the area (or areas) of land to which the agreement applies and is registered on the title of the land. The landholder chooses the area (or areas) of land to be placed under agreement when applying for a Biodiversity Stewardship Agreement.

A Biodiversity Stewardship Agreement includes:

- the number and type (or types) of biodiversity credits created;
- the payment schedule from the Biodiversity Stewardship Payments Fund and Total Fund
   Deposit established through the sale of credits; and
- a management plan for the site that covers plant communities, threatened species, weeds, pests, grazing, fire and disturbance as well as monitoring legal terms and conditions and reporting requirements.

Due to conditions of consent this BSA lands does not generate biodiversity credits for market sale.

#### 1.2.2 Total Fund Deposit

The Total Fund Deposit (TFD) provides confidence that the management actions required under a Biodiversity Stewardship Agreement will be undertaken and lead to biodiversity gains.

The TFD is the amount of money set out in a Biodiversity Stewardship Agreement to cover the costs of future land management activities required under the Biodiversity Stewardship Agreement for that site. Total Fund Deposits are costed using the NSW Total Fund Deposit Calculator and checked by the department as part of the Biodiversity Stewardship Agreement application to ensure they are adequate.

TFD for this proposal must be paid prior to commencement of works and totals over \$2.4 million (refer **Appendix C**).

The Biodiversity Conservation Trust manages the Biodiversity Stewardship Payments Fund. Once the TFD amount is met, the Biodiversity Conservation Trust makes annual payments to the Biodiversity Stewardship Agreement holder to cover the agreed costs of land management activities.



# 1.2.3 BSA Management Plan

A BSA management plan must be prepared using the NSW Template provided to ensure these documents are consistent and specifies the management actions to protect and restore ecosystems and habitat for threatened species on the site.

The management plan will include:

- the management actions to cause biodiversity gain for the creation of biodiversity credits under the BSA, which can include active restoration and performance measures;
- an operations schedule that outlines the details and timing of the required works; and
- maps showing where on the site the management actions are to be carried out.

The management plan will contain management actions to improve the condition of ecosystems and habitats for threatened species on the BSA site. This must include:

- protecting native vegetation and replanting using active restoration;
- protecting threatened species habitat and breeding sites, reducing or removing threatening processes and restoring habitat – for example, providing additional nesting sites or increasing shelter such as areas of dense vegetation or fallen logs;
- controlling and eradicating existing weeds present on the site, including specifying techniques
  for their management and control, proving timing and identifying the location of weed control
  activities, and preventing further spread;
- pest and feral animal control activities to address the pest species likely to be on the site, including baiting, culling, biological control and physical control or reduction in pest carrying capacity – for example, ripping of burrows, shooting, removal of water points, or construction of physical barriers like fences; and
- addressing human disturbance by removing waste and rubbish, structures, limiting human disturbance and access by maintaining boundary fences, signage or other structures, improving fire trails and access tracks, maintaining natural water flow, and preventing erosion and sedimentation.

Active restoration management actions include replanting native flora to restore plant communities and increase native vegetation cover and re-establishing habitat features needed by threatened species.

## 1.2.4 BSA Monitoring

Monitoring and adaptive management includes requirements for monitoring the site over time. This occurs on an annual basis and on a 5-year basis. The landholder is required to provide an annual report to the BCT in accordance with the BCT's template, including taking photos of the site at defined locations (photo points).

Every 5 years, more detailed ecological monitoring is required as set out in the BSA and management plan. This monitoring is needed to track the gain in biodiversity values and the condition of the plant communities and threatened species habitat. The results can be used to review the management plan and adapt requirements to suit changing conditions or address new priorities. This may involve a formal variation to the BSA.

#### 1.2.5 Registering the agreement on title and the public register

NSW LRS will register the BSA on all land titles covered by the BSA. The planning certificate will then note a BSA applies to the land. If landowners want to identify the exact boundaries of the BSA on the deposited plan for the property, payment of an additional NSW LRS fee is applicable.



The BSA and information about the site will also be included on the public register of private land conservation agreements as required by the BC Act and Regulation.



# 1.3 Conditions of EPBC 2014/7217

The VMP is required to satisfy conditions of EPBC 2014/7217 to avoid Project construction impacts on Protected Matters. Ecological Conditions within EPBC 2014/7217 are scheduled in **Table 1**.

Table 1 – Conditions of EPBC Approval

EPBC Condition	VMP Reference	Compliance Summary	
Part A – Conditions Specific to the Action			
DISTURBANCE LIMITS  1) To avoid harm to protected matters, the approval holder must not clear:  a) outside the development area  b) more than 10.59 hectares of Black-eyed Susan habitat  c) within the Biodiversity Stewardship Agreement Sites with the exception of clearing specified in the Vegetation Management Plan approved by the Minister in accordance with Condition 2.	Section 3.3 and 4.6	<ul> <li>a) There will be no clearing outside the development area as specified.</li> <li>b) There will be no clearing more than 10.59ha of Black-eyed Susan habitat. As detailed in the EPBC referral, the Preliminary Documentation Package, and in the EPBC Offset Calculator Justification, the proposed development area is approximately 10.59ha and approximately 10.4ha contains suitable habitat (native vegetation), excluding cleared/managed areas on the periphery of the development boundary. Access to the potholes in the stewardship site will be via existing access tracks that are approximately 0.5m wide. To calculate any minor impacts to vegetation caused by machinery accessing the potholes, a 1m pathway has been added to either side of the existing tracks. The area of the potholes, which average 4m in diameter, have also been included in the calculation. In total, the additional area of impact is 0.181ha.</li> <li>c) There will be no clearing within the Biodiversity Stewardship Agreement Sites that has not been approved by the Minister.</li> </ul>	
VEGETATION MANAGEMENT PLAN (VMP)  2) "To avoid harm to protected matters within the Biodiversity Stewardship Agreement Sites, the approval holder must submit to the department a Vegetation Management Plan for the Minister's approval. The environmental outcomes of implementing the Vegetation Management Plan are to ensure that all Black-eyed Susan habitat within the Biodiversity Stewardship Agreement Sites	Entire report  a) Section 3.3 and 4.6	Report to be submitted to the Minister. The main environmental goal with the VMP is to conserve, improve and protect Black-eyed Susan habitat and ecological condition and prevent impacts from backfilling.  b) The following works are proposed to prevent degradation of Black-eyed Susan habitat:	



EPBC Condition	VMP Reference	Compliance Summary
is conserved, the ecological condition of the Black-eyed Susan Habitat throughout the Biodiversity Stewardship Agreement Sites is improved within 5 years of commencement of the action and to prevent impacts on Black-eyed Susan habitat from backfilling of mine subsidence areas and residential development and use of the development area. The approval holder must not commence the Action unless the Minister has approved the Vegetation Management Plan in writing. The Vegetation Management Plan must include:  a) Details of how the backfilling of mine subsidence areas in the Biodiversity Stewardship Agreement Sites will be managed to prevent degradation of Black-eyed Susan habitat, including by preventing the introduction of soil pathogens or weeds and restoring any areas impacted by the backfilling work.  b) Details of the criteria that will be used to measure the ecological condition of the Black-eyed Susan habitat, the monitoring program that will be implemented to track changes in ecological condition and the measures that will be implemented to ensure that its ecological condition is improved.  c) The information required under Condition 2 of the Development Application Notice of Deferred Consent that is relevant to protected matters.	b) Section 3.3 and 5.5.4 c) Entire report	<ul> <li>Pothole remediation is proposed to be undertaken prior to the Black-eyed Susan peak flowering period to further minimise any potential impacts;</li> <li>Protective fencing is installed along the site boundary/development interface adjacent to Black-eyed Susan population;</li> <li>Vehicle and machinery movements only on identified access tracks where possible;</li> <li>Rubber-tracked machinery may temporarily impact vegetation by driving over and squashing/pressing down on it. However, vegetation shall naturally regenerate following pothole remediation, so although included as an impact is not a permanent removal of habitat.</li> <li>During all mine subsidence remediation works, biosecurity protocols will be implemented to prevent the introduction and spread of weeds and pathogens. Hygiene control stations will be supplied for Plant, Machinery, Tools and Boots Hygiene, and the following hygiene controls will be employed:         <ul> <li>All plant/machinery is to be washed down upon entry to site and prior to exiting site;</li> <li>All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;</li> <li>Boots should be clean and free of soil and seeds before entry to site and before exiting site;</li> <li>Boots should be sterilised in a similar manner to tools after soil and seed removal;</li> <li>Minimisation of work during excessively wet or muddy conditions; and</li> </ul> </li> </ul>



EPBC Condition	VMP Reference	Compliance Summary
		All plants and soils used/brought into site must be disease-free.
		Tracks created to undertake remediation will then be temporarily fenced post-remediation works to allow for vegetation restoration. The temporary fencing excluding access to the restoration area will be removed after 5 years.
		Weed management action will consider known locations of Black-eyed Susan. Weed control methods are to be limited to the following in areas of known Black-eyed Susan habitat, subject to target weed species requirements:
		Hand removal;
		Gas guns;
		Scrape and paint;
		Cut stump method;
		Stem injection; and
		Weed wipers.
		The aim of weed management is to reduce and maintain weed densities at low levels to ensure minimal competition with weed species.
		Active restoration then be undertaken post completion of works and will consist of supplementary plantings throughout the entirety of Management Zones 6 & 7 utilising species listed in <b>Appendix B</b> .
		b) Black-eyed Susan Monitoring surveys are to occur in September-October as per TBDC survey guidelines. These surveys are to undertaken in all management zones, once every five (5) years. Monitoring will be undertaken in monitoring points 1-7, 9-18 and 25 VI plots. <i>T. juncea</i> counts within VI Plots will be undertaken as per LMCC (2012) <i>Flora and Fauna Survey Guidelines</i> , and following methodology as described by Payne, Stevenson, and Wellington (2002).

3043 – Garden Suburbs BSA VMP 11 16 September 2024



EPBC Condition	VMP Reference	Compliance Summary
		Black-eyed Susan clumps will assume one (1) plant where there is a gap greater than 0.30m, and this will be counted as a separated plant. Condition will be recorded by estimating the cover of each plant, visual appearance, such as flowering and colour. Each plant will be numbered for identification in accordance with the associated monitoring point and provide details incl. Eastings and Northings, Monitoring Frequency, Baseline ecological state, and Target ecological state.
		Performance measures include an increase number of individuals detected during monitoring surveys within all management zones and an increase population health (species count) at monitoring point 2, 5, and 12.
		<ul> <li>DA requirements form the basis of the BSA Management Plan and of this VMP</li> </ul>
		A person qualified in natural vegetation management, ecology or bush regeneration shall be retained to prepare a Vegetation Management Plan (VMP) for the biodiversity offset site to the satisfaction of the Biodiversity Conservation Trust and Council. Evidence that the VMP has been submitted, to and approved by the BCT is to be provided to Council's Development Planner Flora and Fauna. The VMP shall include, but not be limited to:
		<ul> <li>Details as to fencing and conservation signage on site boundaries,</li> </ul>
		<ul> <li>Public access and the management of access to the site and within the site;</li> </ul>
		<ul> <li>The management access by private vehicles and motorbikes;</li> </ul>
		<ul> <li>The management of opportunistic waste dumping;</li> </ul>
		<ul> <li>The prohibition of domestic animals;</li> </ul>
		Trail rehabilitation and maintenance;



EPBC Condition	VMP Reference	Compliance Summary
		Weed monitoring and treatment as required,
		<ul> <li>Revegetation of disturbed areas with local endemic species characteristic of native vegetation communities onsite,</li> </ul>
		<ul> <li>Establishment of regular monitoring and response program to protects and enhance habitat for threatened forest owls, squirrel glider and Tetratheca juncea,</li> </ul>
		<ul> <li>Monitoring of VMP works and of key threatened species within the biodiversity offset area. The BCT is to be consulted in this regard, key species include the powerful owl, squirrel glider, <i>Tetratheca juncea</i> and threatened mircobats;</li> </ul>
		Fire management, and
		Pest management.
3) The approval holder must commence implementing the Vegetation Management Plan approved by the Minister prior to the commencement of the Action and continue to implement the Vegetation Management Plan at least until the expiry of this approval.	Table 6 – Proposed Works Schedule within Section 5.6	The implementation of the Vegetation Management Plan will commence prior to the commencement of the Action. <b>Table 6</b> – Proposed Works Schedule, illustrates the proposed schedule of works from VMP commencement until the expiry of this approval.
CONSTRUCTION MANAGEMENT PLAN  4) To avoid and mitigate harm on protected matters within the development area, the approval holder must submit to the department a Construction Management Plan for the Minister's approval. By implementing the Construction Management Plan the approval holder must achieve the following environmental objectives:	Section 4.9 and 5.5 in this VMP, and in the CEMP Report	Construction Management Plan: KCE Pty Ltd Site Specific WHS & Environmental PROJECT MANAGEMENT PLAN Job no 24026, Garden Suburb Subdivision, Intersection Upgrade & Stewardship Site Work Address: Myall Road, Hillsborough which was provided within the Hillsborough (EPBC 2014/7217) Construction Environmental Plan 17 July 2024.
the Action has no impacts on protected matters within the development area, other than the impacts that are permitted under condition 1 and the Action has no impacts on protected matters outside the development area. The approval holder must not		The Construction Management Plan shows that the Action has no impacts on protected matters within the development area allowance of 10.59ha, as defined under the EPBC condition. The Action will not commence until the Minister has approved the Construction Management Plan.



EPBC Condition	VMP Reference	Compliance Summary
commence the Action unless the Minister has approved the Construction Management Plan in writing. The Construction Management Plan must include:  a) Details of the relevant protected matters and a reference to EPBC Act approval conditions to which the plan refers.  b) A table of commitments made in the plan to achieve the environmental objectives, and a reference to exactly where these commitments are detailed in the plan.  c) Commitments capable of ensuring that the environmental objectives are achieved.  d) Reporting and review mechanisms to demonstrate compliance with the commitments made in the plan.  e) An assessment of risks relating to achieving the environmental objectives and risk management strategies and/or mitigation measures that will be applied to address identified risks.  f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.  g) A monitoring program, which must include:  i) measurable performance indicators  ii) trigger values for corrective actions  iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators		The Construction Management Plan include the following:  • Points a – g are detailed in the Construction Environment Management Plan (CEMP) – Retained Lands and Road Works - Myall Road, Hillsborough, NSW EPBC Ref - 2014/7217 Notice of Approval for Residential Development, Hillsborough, NSW Unpublished report by AEP 17 June 2024. Job No: 24026, which is included within the Construction Management Plan  g) The monitoring program is detailed in section 4.9 and 5.5, as well as in the CEMP.
5) The approval holder must commence implementing the Construction Management Plan approved by the Minister from the	CEMP Report	The implementation of the Construction Management Plan will be done from the commencement of the Action until the completion of the Action.

3043 – Garden Suburbs BSA VMP 14 16 September 2024



EPBC Condition	VMP Reference	Compliance Summary	
commencement of the Action and continue to implement it until the completion of the Action.			
OFFSETS  6) To compensate for the residual significant impacts of the Action on protected matters, the approval holder must:  a) not commence any clearing until the Biodiversity Stewardship Agreements Sites have been registered in accordance with the Biodiversity Conservation Act 2016 (NSW), and  b) within 10 business days of the Biodiversity Stewardship Agreement Sites being registered in accordance with the Biodiversity Conservation Act 2016 (NSW), submit written evidence of that registration to the department.	Section 5	It's noted that clearing of vegetation may not commence until the Biodiversity Stewardship Agreements Sites have been registered in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW), and within 10 business days of the Biodiversity Stewardship Agreement Sites being registered in accordance with the <i>Biodiversity Conservation Act 2016</i> (NSW), submit written evidence of that registration to the department.	
7) To compensate for the residual significant impact of the Action on Black-eyed Susan, the approval holder must conserve at least 22.83 hectares of Black-eyed Susan habitat in the Biodiversity Stewardship Agreement Sites, prior to the commencement of the Action.	Section 1	A total of 25.56ha of Black-eyed Susan habitat will be conserved within the Biodiversity Stewardship Agreement and managed under a 20-year management plan.	
8) The approval holder must improve the ecological condition of the Black-eyed Susan Habitat throughout the Biodiversity Stewardship Agreement Sites within 5 years of the date of the commencement of the Action to the agreed upon condition in the Vegetation Management Plan and thereafter ensure that the rating remains at the agreed amount or above.	Section 1	This VMP covers the establishment and management of retained vegetation to maintain and enhance the ecological condition of Black-eyed Susan habitat within BSA lands.	
Part B – Administrative conditions			
REVISION OF ACTION MANAGEMENT PLANS	N/A	Administrative conditions.	
9) The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister, or as subsequently revised in accordance with the following			

3043 – Garden Suburbs BSA VMP 15 16 September 2024



EPBC Condition	VMP Reference	Compliance Summary
conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.		
10) The approval holder may choose to revise an action management plan approved by the Minister under conditions 2 and 4 or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the Action in accordance with the RAMP would not be likely to have a new or increased impact.	N/A	Administrative conditions.
11) If the approval holder makes the choice under condition 10 to revise an action management plan without submitting it for approval, the approval holder must:	N/A	Administrative conditions.
a) Notify the department electronically that the approved action management plan has been revised and provide the department with:		
i) An electronic copy of the RAMP.		
ii) An electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP.		
iii) An explanation of the differences between the approved action management plan and the RAMP.		
iv) The reasons the approval holder considers that taking the Action in accordance with the RAMP would not be likely to have a new or increased impact.		
v) Written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 business days after the date of providing notice of the		



EPBC Condition	VMP Reference	Compliance Summary
revision of the action management plan, or a date agreed to in writing with the department.		
b) Subject to condition 10 implement the RAMP from the RAMP implementation date.		
12) The approval holder may revoke its choice to implement a RAMP under condition 10 at any time by giving written notice to the department. If the approval holder revokes the choice under condition 10, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 10.	N/A	Administrative conditions.
13) If the Minister notifies the approval holder that the Minister is satisfied that the taking of the Action in accordance with the RAMP would be likely to have a new or increased impact, then:	N/A	Administrative conditions.
a) Condition 10 does not apply, or ceases to apply, in relation to the RAMP.		
b) The approval holder must implement the action management plan specified by the Minister in the notice.		
14) At the time of giving the notice under condition 13, the Minister may also notify that for a specified period of time, condition 10 does not apply for one or more specified action management plans.	N/A	Administrative conditions.
SUBMISSION AND PUBLICATION OF PLANS	N/A	The condition has been acknowledged and will be applied.
15) The approval holder must submit all plans required by these conditions electronically to the department.		
16) Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date:	N/A	Administrative conditions.



EPBC Condition	VMP Reference	Compliance Summary
a) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister, or		
b) the plan is submitted to the department in accordance with a requirement of these conditions, if the plan does not require the approval of the Minister, or		
c) the plan is approved by a state or territory government official as required under a state or territory government condition which must be complied with in accordance with these EPBC Act conditions.		
17) The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	N/A	Administrative conditions.
18) The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public. If sensitive ecological data is excluded or redacted from a plan, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website.	N/A	Administrative conditions.
NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION  19) The approval holder must notify the department electronically of the date of commencement of the Action, within 5 business days following commencement of the Action.	Section 4	Prior to the commencement of regeneration, the BSA Lands must be prepared. The Owner must notify the department electronically of the date of commencement of works, within 5 business days following commencement of the works.
20) The approval holder must not commence the Action later than 5 years after the date of this approval decision.	Table 6	The Action will not commence later than 5 years after the date of the approval decision.
COMPLIANCE RECORDS	Entire report	The condition has been acknowledged and will be applied.
21) The approval holder must maintain accurate and complete compliance records.		



EPBC Condition	VMP Reference	Compliance Summary
22) If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.	Entire report	Compliance records will be provided within timeframe upon a written request from the department.
23) The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guidelines for biological survey and mapped data, Commonwealth of Australia 2018, or as otherwise specified by the Minister in writing.	Section 4.9 and 5.5	All monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are will be prepared in accordance with the <i>Guidelines for biological survey and mapped data, Commonwealth of Australia 2018.</i>
24) The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the Guide to providing maps and boundary data for EPBC Act projects, Commonwealth of Australia 2021, or as otherwise specified by the Minister in writing.	Section 4.9 and 5.5	All monitoring data which includes, surveys, maps, and other spatial and metadata required under the conditions of this approval will be prepared in accordance with the Guidelines for biological survey and mapped data, Commonwealth of Australia 2018 and the Guide to providing maps and boundary data for EPBC Act projects, Commonwealth of Australia 2021.
25) The approval holder must submit all monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department within 30 business days of each anniversary of the date of this approval decision or in accordance with the requirements of the Construction Management Plan's approval.	Section 4.9 and 5.5	All monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) will be submitted to the department annually, within 30 business days of each 12-month period.
ANNUAL COMPLIANCE REPORTING  26) The approval holder must prepare a compliance report for each 12-month period following the date of this approval decision, or as otherwise agreed to in writing by the Minister.	Section 5.5	All monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) will be submitted to the department annually, within 30 business days of each 12-month period.

3043 – Garden Suburbs BSA VMP 19 16 September 2024



EPBC Condition	VMP Reference	Compliance Summary
27) Each compliance report must be consistent with the Annual Compliance Report Guidelines, Commonwealth of Australia 2014.	Section 5.5	The format of each report submitted will follow the specific guidelines set out within the Annual Compliance Report Guidelines, Commonwealth of Australia 2014.
a) Accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents. b) One or more shapefile showing all clearing of protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared. c) A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.	Sections 1-6, Particularly Section 5.5	The format of each report submitted will follow the specific guidelines set out within the Annual Compliance Report Guidelines, Commonwealth of Australia 2014.  a) Each annual report will address details of compliance and any noncompliance works, any incidents recorded, overall targets, Blackeyed Susan habitat and condition, weed management, and regeneration approach success.  b) All monitoring data which includes, surveys, maps, and other spatial and metadata required under the conditions of this approval will be prepared in accordance with the Guidelines for biological survey and mapped data, Commonwealth of Australia 2018 and the Guide to providing maps and boundary data for EPBC Act projects, Commonwealth of Australia 2021.  The data gathered above and all species occurrence record data (sightings and evidence of presence), will be submitted to the department annually, within 30 business days of each 12-month period. Shapefiles showcasing the clearing extent of protected matters, and/or their habitat are to be provided, if clearing these areas occurs.  c) Sections 1-6 within this VMP details how the VMP will be implemented, site preparation, regeneration works and the monitoring and reporting requirements. The VMP in conjunction with the Construction Environment Management Plan – Retained Lands and Road Works - Myall Road, Hillsborough, NSW EPBC Ref - 2014/7217 Notice of Approval for Residential Development, Hillsborough, NSW Unpublished report by AEP 17 June 2024, addresses all relevant conditions as part of EPBC Ref - 2014/7217.

3043 – Garden Suburbs BSA VMP 20 16 September 2024



# 2.0 Site Context and Existing Condition

# 2.1 Project Description and Objectives of BSA/VMP

The proposed development is an urban residential subdivision of approximately 72 lots at Lot 1 DP1168657, Lot 50 DP 1301215, and Lot 10 DP1011323, known as 9A, 69 & 82 Myall Road, Garden Suburb, NSW within the Lake Macquarie Area (LGA) (EPBC Act referral 2014/7217). The Biodiversity Stewardship Agreement Site (BSA Sites) totalling 27.97ha, consists of 25.56ha of native vegetation which is regularly used by the local community resulting in overall moderate weed loads and an extensive network of tracks. **Figure 1** shows the site location.

The following Actions are proposed:

- Proposed development area: approximately 10.59ha in size, containing approximately 10.4ha of native vegetation.
- Mine Subsidence Area: Potholes for remediations including access tracks (0.18ha); and
- The proposed Biodiversity Offset Areas: BSA Land, approximately 27.97ha, consists of 25.56ha of native vegetation.

The boundary management map (**Figure 2**) shows the location of Management Actions in the Biodiversity Stewardship Site, and Management features (e.g. artificial structures on waterways, erosion, rubbish, fencing, gates, firetrails, access tracks, infrastructure and built assets to be retained). The proposed development will potentially have an impact on matters protected under the EPBC Act. The environmental outcomes of implementing the VMP are to ensure the following (detailed in **Table 2**):

- That all Black-eyed Susan habitat within the Biodiversity Stewardship Agreement Sites is conserved;
- The ecological condition of the Black-eyed Susan Habitat throughout the Biodiversity Stewardship Agreement Sites is improved within 5 years of commencement of the action; and
- To prevent impacts on Black-eyed Susan habitat from backfilling of mine subsidence areas and residential development and use of the development area which specifically relates to the VMP.

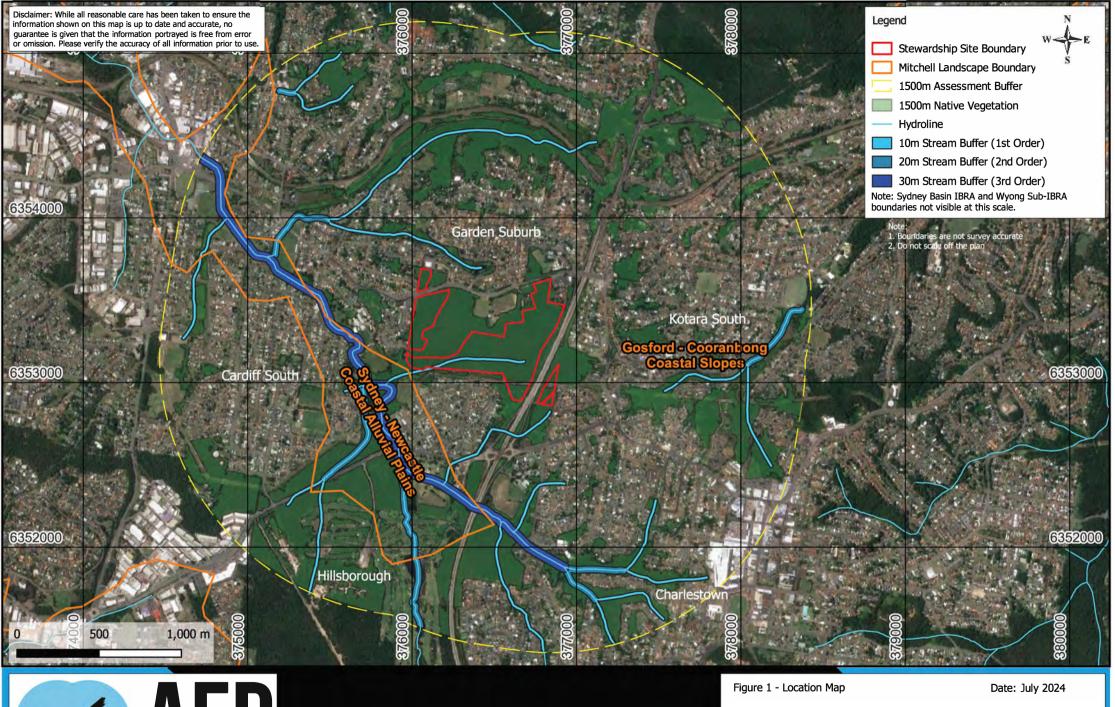
There is approximately 25.56ha suitable Black-eyed Susan habitat within the BSA Land (Figure 2).

A BSSAR has already developed a Management Plan for the BSA Lands which covers the nominated VMP lands that relates to the EPBC Act referral 2014/7217 and specifically in the Active Restoration Management Zones 6 and 7 that addresses track access and pothole remediation. This information has been presented in the VMP although all management zones and Plant Communities have been included to demonstrate the overall Management Plan. For impacts related to the pothole remediation to Black-eyed Susan habitat specifically for the VMP land, please refer to the CEMP in conjunction with the VMP.



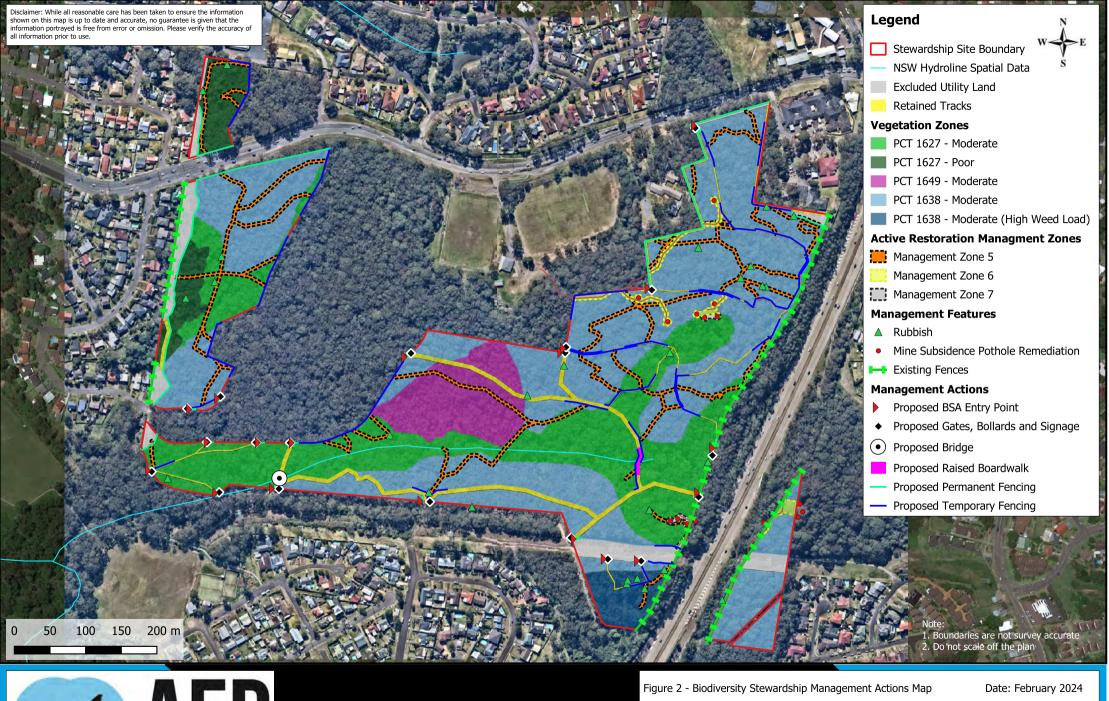
Table 2 – VMP Objectives and Approach

Objectives (Environmental Outcomes)	Approach
Improve ecological health and integrity	Control woody weeds and noxious weeds; Revegetate with appropriate native species in keeping with the PCTs: Maintenance of weed control and gradual reduction of weed and exotic plant cover; and Management of threats (backfilling, of mine subsidence areas and residential development and use of the development area).
Maintain and enhance habitat values	Protect existing native vegetation; Weed control and gradual reduction of weed and exotic plant cover; Increase native plant cover; and Management of threats (backfilling, of mine subsidence areas and residential development and use of the development area).





Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW
Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323
EPBC ref: 2014/7217 Residential development Hillsborough VMP rev 01
Client: Landcom AEP ref: 3043





Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323

Client: Landcom AEP ref: 3043



# 2.2 Environmental Management Roles and Responsibilities

Once the Action is approved, the approval holder is responsible for complying with the conditions of approval, including the commitments made in environmental management plans.

The implementation of this VMP and ongoing management is to be undertaken by qualified bush regeneration practitioners, having a minimum TAFE Certificate III in Land Management.

The person managing the project will have a minimum of five years' experience in managing natural areas, have a relevant degree to ensure the implementation proceeds according to this VMP.

The environmental management roles and responsibilities are shown in **Table 3**.

Table 3 - Roles and Responsibilities

Role	Responsibility
Biodiversity Conservation Trust (NSW Government)	<ul> <li>The NSW Biodiversity Conservation Trust assists landholders to manage their Biodiversity Stewardship sites. Once a landholder has entered into a biodiversity stewardship agreement with the Credit Supply Taskforce, the NSW Biodiversity Conservation Trust manages the agreement by making annual biodiversity stewardship payments to the landholder for carrying out conservation management actions on the site. The NSW Biodiversity Conservation Trust ensures compliance through review of annual reports and site inspections and provides ongoing landholder support.</li> </ul>
Landcom Approval Holder	<ul> <li>It is the responsibility of Landcom (the EPBC 2014/7217 Approval Holder) to ensure all measures scheduled in the VMP are carried out. Landcom will fulfil this requirement in cooperation with to the Principal Contractor and the Project Ecologist; and</li> </ul>
	<ul> <li>Landcom must take all reasonable steps to ensure that any person involved in any aspect of Project works is informed of all ecological conditions attached to this approval, has been inducted in measures to meet those conditions and that the other person complies with any such conditions.</li> </ul>
Principal Contractor  Project Manager for  construction	<ul> <li>Landcom has appointed KCE Pty Ltd (KCE) as the Principal Contractor for the Project. KCE's site specific Environmental responsibilities are scheduled in Site Specific WHS &amp; Environmental Project Management Plan (KCE, 2024) (the PMP), developed for the Project;</li> </ul>
	<ul> <li>Responsibility for environmental management of the site, as it relates to the construction of the stormwater infrastructure;</li> </ul>
	<ul> <li>Communication environmental features and mitigation measures to all sub- contractors during procurement, induction and works phase;</li> </ul>
	<ul> <li>Supervise sub-contractors to ensure implementation if in accordance with the VMP;</li> </ul>
	<ul> <li>Consult impacted community members prior to works;</li> </ul>
	Manage staff and sub-contractors;
	Manage and report complaints; and
	Respond to and report incidents.
Project Ecologist	Prior to any construction works, Landcom will appoint a Project Ecologist to ensure compliance with ecological mitigation measures;
	<ul> <li>The Project Ecologist shall undertake all required pre-clearance surveys and limit-of-works marking and supervise clearing of native vegetation;</li> </ul>



Role	Responsibility
	<ul> <li>Ensure works avoid impacts upon Protected Matters in general and, Black-eyed Susan in particular;</li> </ul>
	<ul> <li>Ensure only native vegetation scheduled for removal in the approved plans are removed;</li> </ul>
	<ul> <li>Ensure all subcontractors are inducted into avoidance measures scheduled herein;</li> </ul>
	Ensure all mitigation measures scheduled in the BSSMP are implemented; and
	Ensure compliance where scheduled is reported in required time frames.
All contractor and subcontractors	All staff and sub-contractors are to complete site induction;
	<ul> <li>Responsibility for carrying out works in accordance with this VMP;</li> </ul>
	<ul> <li>Monitoring and reporting of VMP implementation;</li> </ul>
	<ul> <li>Manage and report complaints to the Principal Contractor; and</li> </ul>
	Respond to and report incidents.

## 2.3 Vegetation Descriptions and Conditions

Three (3) Plant Community Types (PCTs) occur onsite including one (1) which is associated with a Threatened Ecological Community (TEC):

- 1638\(^{\text{V}}\) Smooth-barked Apple Red Bloodwood Scribbly Gum grass shrub woodland on lowlands of the Central Coast (Bells 2016 variant Kahibah Snappy Gum Forest);
- 1627 Smooth-barked Apple Turpentine Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast; and
- 1649 Smooth-barked Apple Red Mahogany Swamp Mahogany Melaleuca sieberi heathy swamp woodland of coastal lowlands.

PCT 1649 is associated with the BC listed TEC, Swamp Sclerophyll Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions. In addition, PCT 1649 has an association with EPBC listed TEC Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland.

A map of the Vegetation Zones is shown in **Figure 2**.

The whole BSA Management Plan has been provided within the VMP however impacts associated with the EPBC requirements are outlined in Management Zone 6 & 7 only with the Active restoration approach as outlined in section 4.6.5 within a 5-year period.

#### 2.3.1 PCT 1638V – Moderate Condition

This vegetation zone occurs within the drier areas of the site, consisting of open forest with a midstorey of myrtaceous and heathy shrubs, the ground stratum is grassy with a low abundance of forbs and ferns. Weed cover is generally low, consisting of woody weed species such as Camphor Laurel and Lantana.

**Canopy Stratum:** The canopy commonly contains *Angophora costata, Corymbia gummifera* and *Eucalyptus piperita*, along with other eucalypt species such as *Eucalyptus racemosa, Eucalyptus haemastoma* and *Eucalyptus capitellata*.



**Mid-Stratum:** The midstory contains a diverse shrub layer consisting of *Banksia oblongifolia*, *Banksia spinulosa*, *Persoonia levis*, *Persoonia linearis*, *Allocasuarina torulosa*, *Lambertia formosa*, *Dodonaea triquetra*, *Polyscias sambucifolia*, *Platylobium formosum*, *Leptospermum* spp, *Pittosporum undulatum* and *Elaeocarpus reticulatus*.

**Ground-Stratum:** The ground stratum is typically grassy, commonly containing, *Entolasia stricta, Themeda triandra, Gahnia sieberiana, Imperata cylindrica* and *Lomandra obliqua*. Forbs present are sparse and include *Dianella caerulea* and *Dampiera purpurea*. The ferns present are *Pteridium esculentum* and *Lindsaea spp.* Other species present include the grass tree, *Xanthorrhoea latifolia* which is common. Vines present include, *Billardiera scandens, Cassytha glabella, Parsonsia straminea* and *Smilax glyciphylla*.

**Common weeds:** Woody weed species present consist mostly of *Cinnamomum camphora* (Camphor laurel) and *Lantana camara* (Lantana). Both species are listed as High Threat Exotics (HTE).

Associated EPBC and BC Act listed Threatened Species: Black-eyed Susan (Tetratheca juncea).

# 2.3.2 PCT 1638<sup>V</sup> – Moderate Condition – High Weed Load

This vegetation zone occurs within the drier areas of the site, consisting of open forest with a midstory of myrtaceous and heathy shrubs, the ground stratum is grassy with a low abundance of forbs and ferns. Weed cover is generally high in the southern section, consisting of woody weed species such as Camphor Laurel and Lantana. An RDP revealed a dense thicket of inaccessible Lantana.

**Canopy Stratum:** The canopy commonly contains *Angophora costata, Corymbia gummifera* and *Eucalyptus piperita*, along with other eucalypt species such as *Eucalyptus racemosa, Eucalyptus haemastoma* and *Eucalyptus capitellata*.

**Mid-Stratum:** The midstory contains a diverse shrub layer consisting of *Banksia oblongifolia*, *Banksia spinulosa*, *Persoonia levis*, *Persoonia linearis*, *Allocasuarina torulosa*, *Lambertia formosa*, *Dodonaea triquetra*, *Polyscias sambucifolia*, *Platylobium formosum*, *Leptospermum* spp, *Pittosporum undulatum* and *Elaeocarpus reticularis*.

**Ground-Stratum:** The ground stratum is typically grassy, commonly containing, *Entolasia stricta, Themeda triandra, Gahnia sieberiana, Imperata cylindrica* and *Lomandra obliqua*. Forbs, *Dianella caerulea* and *Dampiera purpurea* are sparse, along with ferns, *Pteridium esculentum* and *Lindsaea* spp. Grass tree, *Xanthorrhoea latifolia* is common. Vines included, *Billardiera scandens, Cassytha glabella, Parsonsia straminea* and *Smilax glyciphylla*.

**Common weeds:** Woody weed species present consist of mostly *Cinnamomum camphora* (Camphor laurel) and *Lantana camara* (Lantana). Both species are listed as Priority weeds within the Hunter region and HTEs under the BAM. These weeds have high coverage both within and to the south of the vegetation zone. It's noted that *Lantana camara* (Lantana) is also listed as a Weed of National Significance (WoNS).

Associated EPBC and BC Act listed Threatened Species: Black-eyed Susan (Tetratheca juncea).

#### 2.3.3 PCT 1649 – Moderate Condition

This vegetation zone consists of heathy swamp forest, containing an open eucalypt canopy with a midstratum of myrtaceous and heathy shrubs. The ground cover has little diversity, containing predominantly *Gahnia clarkei*. This vegetation zone has little to no disturbance.

Canopy Stratum: Angophora costata and Eucalyptus resinifera.

**Mid-Stratum:** Banksia oblongifolia, Banksia spinulosa, Callicoma serratifolia, Leptospermum polygafolium, Leptospermum juniperinus and Melaleuca sieberi.



**Ground-Stratum:** The ground stratum possesses a low number of native species, consisting predominantly of *Gahnia clarkei*. *Pteridium esculentum* (Bracken) and *Cassytha glabella* were also present.

Common weeds: None present.

#### 2.3.4 PCT 1627 - Moderate Condition

This vegetation zone contains an open to closed forest containing mesic species, occurring along creek lines and drainage areas within the BSA Lands. These areas contain a low cover of woody weed species such as Lantana and Privet. The vegetation contains hollow-bearing trees and a mix of stem classes with occasional large trees.

**Canopy Stratum:** The canopy contains eucalypt species particularly, *Angophora costata, Corymbia gummifera, Eucalyptus piperita* along with other eucalypt species such as *Eucalyptus umbra* and *Corymbia maculata*. *Syncarpia glomulifera* is often present with *Callicoma serratifolia* dominating along drainage lines.

**Mid-Stratum:** A combination of heathy and mesic shrub species, *Allocasuarina torulosa, Acacia terminalis, Breynia oblongifolia, Ceratopetalum gummiferum, Dodonaea triquetra, Elaeocarpus reticulatus, Glochidion ferdinandi, Hibbertia aspera, Leucopogon spp., Persoonia linearis, Pittosporum undulatum and Platylobium formosum. Vines are frequent and diverse, common species include <i>Billardiera scandens, Dioscorea transversa, Pandorea pandorana, Hibbertia dentata, Hibbertia scandens, Smilax australis* and *Tylophora paniculata.* 

**Ground-Stratum:** The ground stratum possesses a number of native species, consisting of ferns, grasses and grass-like species including ferns, *Blechnum cartilagineum, Calochlaena dubia, Hypolepis muelleri* and *Pteridium esculentum*. Grasses and grass-like species include *Entolasia stricta, Gymnostachys anceps, Imperata cylindrica, Lepidosperma laterale, Lomandra longifolia, Oplismenus imbecillis, Poa affinis, Microlaena stipoides and <i>Themeda triandra*.

**Common weeds:** Woody weed species occur in low abundance, including, *Lantana camara*, *Ochna serrulata*, *Cinnamomum camphora*, and *Ligustrum* spp. (Privets). All species are listed as Priority weeds within the Hunter region and HTEs. It's noted that *Lantana camara* is listed as a Weed of National Significance (WoNS).

#### 2.3.5 PCT 1627 – Poor Condition

This vegetation zone contains an open canopy of eucalypts with a thick shrub cover made up of predominantly woody weeds. The groundcover consists of a number of ferns and grasses. Vines and native shrubs persist in low abundance.

Canopy Stratum: Angophora costata, Syncarpia glomulifera and Eucalyptus umbra.

Mid-Stratum: Allocasuarina torulosa, Glochidion ferdinandi and Podocarpus elatus.

**Ground-Stratum:** The ground stratum consists of a diverse layer of ferns, grasses and glasslike plants, and vines; prominent species include the fern, *Blechnum cartilagineum*; the forb *Geranium solanderi* and grasses and grasslike plants including *Gymnostachys anceps, Lomandra longifolia* and *Oplismenus imbecillis*. Vines such as *Smilax australis, Dioscorea transversa, Pandorea pandorana* and *Stephania japonica* are prominent.

**Common weeds:** Woody weed species occur in high abundance in the midstratum, including, *Lantana camara, Ochna serrulata, Cinnamomum camphora* and *Ligustrum* spp. (Privets). Herbaceous weeds such as *Tradescantia fluminensis* and the exotic grass *Ehrharta erecta* are also frequent. All species are listed as high threat exotics.



# 3.0 Regeneration Approach and Targets

Regeneration of the BSA Land will be undertaken over a period of 20 years. Management of the site will be undertaken to ensure compliance with the BSA and management plan as well as the *Biosecurity Act 2015*.

Regeneration of the BSA Land will aim to reach a state of "Natural Regeneration" requiring minimal to no intervention. To achieve this, an Integrated Regeneration Approach has been designed, with key elements and targets identified for each vegetation community within each Management Zone.

It is anticipated that after the 5 years duration of the VMP, the vegetation present will be in a state of natural regeneration and will be self-sustaining only requiring a low level of maintenance to address sporadic weed incursions which will still be included in the 20-year BSA management plan.

## 3.1 Integrated Regeneration Approach for BSA Lands

Regeneration of the BSA Site will be undertaken by utilising where possible the principles of the *Society* for Ecological Restoration Australasia (2021) National standards for the practice of ecological restoration in Australia Edition 2.2 and an ecological regeneration approach has been deemed suitable for the BSA Site. This approach utilises three integrated restoration techniques to achieve the goal of a Natural Regenerating ecosystem and include:

- Reconstruction Approach;
- Facilitated Regeneration Approach; and
- Natural Regeneration.

National Guidelines assigned to the BSA Site areas are based on their history of disturbance and current state. These include the Natural Regeneration and Facilitated Regeneration approaches that will be utilised within the BSA Site with the aim of achieving the Natural Regeneration state by the end of the VMP Management period.

# 3.1.1 Reconstruction Approach

This approach is used across sites where the vegetation condition is poor, generally due to a range of causes of degradation that have led to partial or total damage to biotic and abiotic factors. The Reconstruction Approach includes:

- Primary weeding;
- Installation of jute matting and coir logs in areas of high water-flow;
- Planting of tree, shrub and ground species in appropriate areas;
- Installation of guards around tree and shrub species;
- Watering;
- Secondary weeding;
- Mulching in areas without jute matting;
- Maintenance watering;
- · Maintenance of tree guards; and
- Replacement of dead plants.

Reconstruction approach will be utilised in several Management Zones of the BSA Lands, mainly along degraded tracks and mine subsidence areas.



# 3.1.2 Facilitated Regeneration Approach

This approach is generally used on sites where regeneration progress is at an intermediate level and active intervention is minimised.

As stated, the Facilitated Regeneration Approach requires active interventions, the tasks of which will be determined by the Bush Regeneration Contractor (BRC) and may involve the following tasks:

- Weeding;
- Replacement of dead plants;
- Maintenance of tree guards;
- · Maintenance of jute matting; and
- Watering.

Several areas of the BSA Lands in more degraded state will be managed through the facilitated regeneration approach. In addition, once reconstruction is complete, the Management Zones subject to active restoration will move into facilitated regeneration.

## 3.1.3 Natural Regeneration Approach

This approach is where damage is relatively low, and pre-existing biota should be able to recover after cessation of degrading practices. The Natural Regeneration Approach requires limited to no interventions with weeding being the only task undertaken to encourage continual natural regeneration.

The majority of the BSA Lands will be managed via this approach due to weed loads being mostly low to negligible. Where weed densities are moderate, ongoing weed control targeting the vicinity of the tracks is expected to manage the edge effect and provide opportunities for native flora to recruit and colonise areas cleared of exotic species.

Ongoing monitoring will determine whether weed control is effective and if adjusting management strategy to facilitated regeneration and/or reconstruction is necessary.

## 3.2 Management Zones

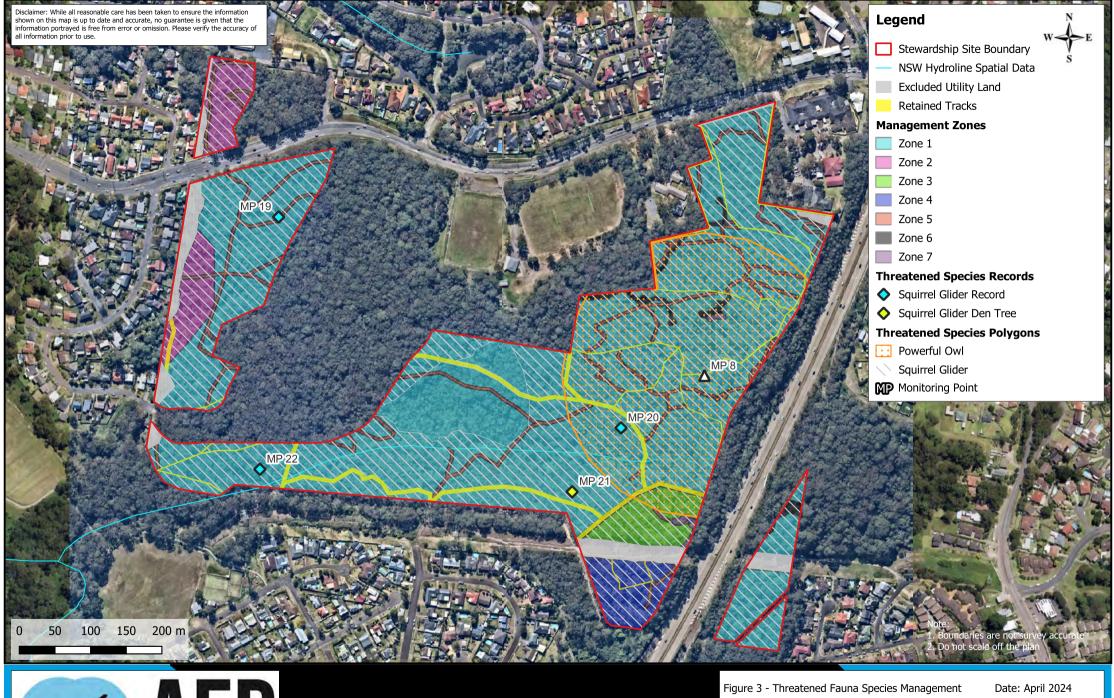
The BSA Lands have been segregated into seven (7) Management Zones (MZs) and will utilise the above approaches. The location of the following zones is presented in **Figure 2** and Management Zones and monitoring points for Forest owls and Squirrel glider in **Figure 3** below:

- Management Zone 1 (MZ1): PCT 1638<sup>V</sup> Smooth-barked Apple Red Bloodwood Scribbly Gum grass - shrub woodland on lowlands of the Central Coast (Moderate condition);
- Management Zone 2 (MZ2): PCT 1627 Smooth-barked Apple Turpentine Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast (Poor condition);
- Management Zone 3 (MZ3): PCT 1627 Smooth-barked Apple Turpentine Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast (Moderate);
- Management Zone 4 (MZ4): PCT 1638\(^{\text{V}}\) Smooth-barked Apple Red Bloodwood Scribbly Gum grass shrub woodland on lowlands of the Central Coast (Moderate condition HWL);
- Management Zone 5 (MZ5): PCT 1627 Smooth-barked Apple Turpentine Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast (Moderate condition);
- Management Zone 6 (MZ6): PCT 1638<sup>V</sup> Smooth-barked Apple Red Bloodwood Scribbly Gum grass - shrub woodland on lowlands of the Central (Moderate condition);



• Management Zone 7 (MZ7): PCT 1627 - Smooth-barked Apple - Turpentine - Sydney Peppermint heathy woodland on sandstone ranges of the Central Coast (Moderate condition).

Baseline monitoring was established within 18 of the 25 plots to update weed densities for these Management Zones. Seven (7) of the 25 plots will need Baseline VI plots to be undertaken within 6 months of BSA commencement. This data will be used to adjust the relevant restoration techniques for each MZ. Monitoring the baseline VI plot is to be conducted every five (5) years. Management actions specific to each MZ is detailed in the following sections.





Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323

Client: Landcom AEP ref: 3043



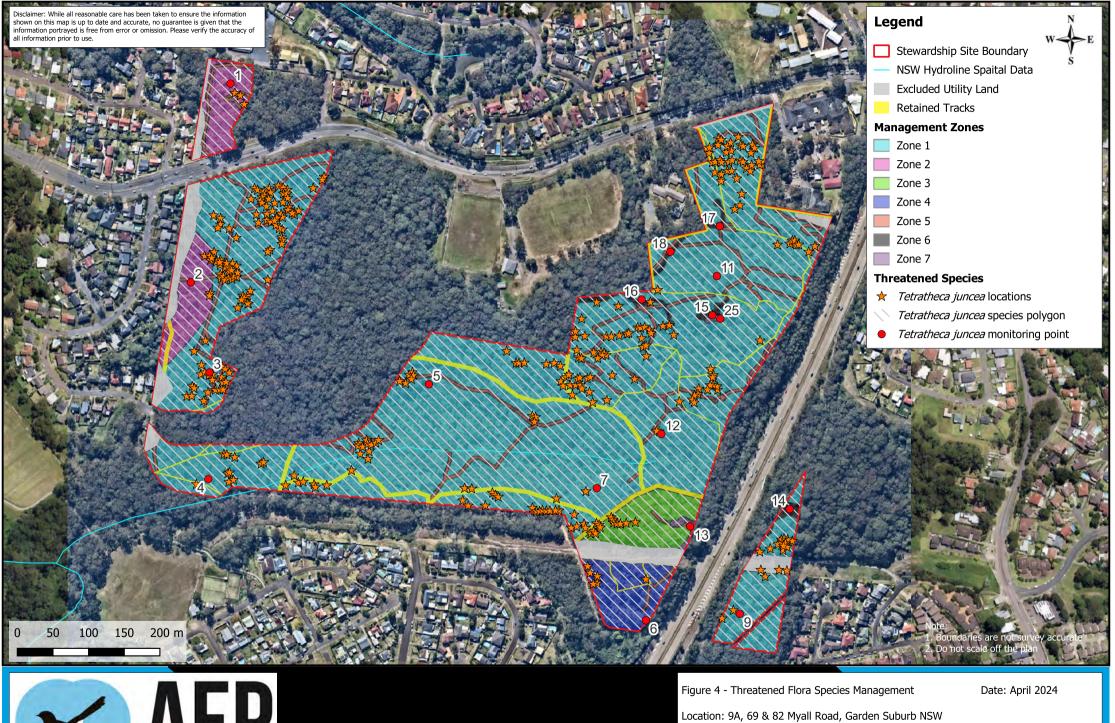
# 3.3 Tetratheca juncea – Black-eyed Susan Habitat

A total of 25.56ha of Black-eyed Susan habitat will be conserved within the Biodiversity Stewardship Agreement and managed under a 20-year management plan. It's to be noted that no more than 10.59ha of Black-eyed Susan habitat within the development area and identified mine subsidence remediation area within the BSA site will be impacted.

Black-eyed Susan habitat management includes reducing and maintaining weed densities at low levels to ensure minimal competition from exotic species. Any weed management action will consider known locations of Black-eyed Susan shown in **Figure 4** below.

Weed control methods are to be limited to the following in areas of known Black-eyed Susan habitat, subject to target weed species requirements:

- · Hand removal;
- Gas guns;
- Scrape and paint;
- Cut stump method;
- Stem injection; and
- Weed wipers.



Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323

Client: Landcom AEP ref: 3043



## 3.4 Ecosystem Targets

"Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed (SER 2021)".

The overall target for the BSA Lands is to enhance the ecological condition of Black-eyed Susan, and establish a naturally regenerating community that provides habitat for foraging, roosting and nesting for species associated with the PCTs and local region.

There are many ways to generate targets and establish measure tools to determine the health of an ecosystem such as:

- Benchmark conditions set under the Biodiversity Assessment Methods 2020;
- Percentage of species presence from community list per as a whole or per stratum;
- Species composition;
- Physical condition;
- Absence or presence of threats;
- Structural diversity;
- · Coverage of the flora species;
- Diversity of fauna gilds present; and
- Abundance of fauna recorded within the BSA Sites.

AEP acknowledges that all of the above are valid assessment tools to utilise and measure success, however there are several factors that limit all communities from reaching Benchmark Conditions:

- Availability to purchase seed or tube stock of many native species;
- Topographic features of each site vary;
- Aspect of BSA Lands variation between sites;
- Accessibility / connectivity for mobile fauna to access and use the site;
- Soil types;
- Surrounding vegetation communities influence the seed stock and hence natural regeneration;
- Presence of absence of canopy, impacting the microclimates;
- Rainfall variation; and
- Growth timeframes.

When developing targets for the BSA Lands, the above must be taken into consideration without losing the main objective to assist the recovery of an ecosystem. Therefore, AEP has developed targets (refer to **Table 4**) for Reconstruction Approach that can will achieve a naturally regeneration functioning ecosystem, within the timeframes outlined in the VMP.

Utilising ecological references to identify the particular terrestrial or aquatic ecosystem and inform the targets of a regeneration project involves describing the specific compositional, structural and functional ecosystem attributes requiring reinstatement, before the desired outcome, "assist the recovery of an ecosystem", can be said to have been achieved. These attributes in combination can then be used to derive the targets for a VMP. A restored state is considered to have been achieved when an ecosystem is naturally regenerating.



# 3.4.1 BSA Land Targets

The Integrated Regeneration Approach will be used across the entire BSA Lands and the following targets have been designed to be specific, measurable, achievable, reasonable and time bound (SMART), providing qualitative data within the BSA Lands.

Given the current condition of the BSA Lands the focus is on revegetation and weed removal, which in turn will promote the growth of native vegetation from the seed bank in the soil and the seed brought in by mobile fauna.

Using the approved BSA Management Plan AEP has used the SMART principles to ensure all targets are:

- Specific;
- Measurable;
- Achievable;
- Realistic; and
- Time-bound.

To achieve above measures the Table 4 outlines the specific measure targets that have been assessed by the NSW BCT as achievable in the timeframes. **Table 4** will assist the Bush Regeneration Contractor and Project Ecologist to maintain focus on the tasks required to meet the objective of a naturally regenerating Site with full ecosystem function.

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Table 4 – Regeneration Targets for Management Zones

	Level 1	Level 2	Level 3	Level 4	Level 5
	Weed	Management			
Management Zone	Current Cover	Year 5 Cover	Year 10 Cover	Year 15 Cover	Year 20 Cover
1	Exotic Grasses: 1-5% Herbaceous: 1-5% Fern: 4-5% Woody: 0-10%	Exotic Grasses: 0- 4% Herbaceous: 0-4% Fern: 3-4% Woody: 0-8%	Exotic Grasses: 0-3% Herbaceous: 0-3% Fern: 2-3% Woody: 0-6%	Exotic Grasses: 0- 2% Herbaceous: 0-2% Fern: 1-2% Woody: 0-4%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Fern: 1-0% Woody: 0-2%
2	Exotic Grasses: 1-5% Herbaceous: 1-5% Vine: 0-5% Lantana: 40-50%	Exotic Grasses: 0- 4% Herbaceous: 0-4% Vine: 0-4% Lantana: 30-40%	Exotic Grasses: 0-3% Herbaceous: 0-3% Vine: 0-3% Lantana: 20-30%	Exotic Grasses: 0- 2% Herbaceous: 0-2% Vine: 0-2% Lantana: 10-20%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Vine: 0-1% Lantana: 0-10%
3	Exotic Grasses: 1-5% Herbaceous: 3-5% Woody: 2-5%	Exotic Grasses: 0- 4% Herbaceous: 2-4% Woody: 1-4%	Exotic Grasses: 0-3% Herbaceous: 1-3% Woody: 0-3%	Exotic Grasses: 0- 2% Herbaceous: 0-2% Woody: 0-2%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0-1%
4	Exotic Grasses: 1-5% Herbaceous: 1-5% Lantana: 50-75%	Exotic Grasses: 0- 4% Herbaceous: 0-4% Lantana: 45-60%	Exotic Grasses: 0-3% Herbaceous: 0-3% Lantana: 30-45%	Exotic Grasses: 0- 2% Herbaceous: 0-2% Lantana: 15-30%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Lantana: 0-10%
5	Exotic Grasses: 0-5% Herbaceous: 0-2%	Exotic Grasses: 0- 4% Herbaceous: 0-1%	Exotic Grasses: 0-3% Herbaceous: 0-1%	Exotic Grasses: 0- 2% Herbaceous: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1%
6	Exotic Grasses: 1-3% Herbaceous: 1-2% Woody: 0-2%	Exotic Grasses: 0- 2% Herbaceous: 0-1% Woody: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0-1%



	Level 1	Level 2	Level 3	Level 4	Level 5
7	Exotic Grasses: 1-3% Herbaceous: 1-2% Woody: 0-2%	Exotic Grasses: 1- 2% Herbaceous: 0-1% Woody: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0-1%	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0	Exotic Grasses: 0- 1% Herbaceous: 0-1% Woody: 0
	Active Restoration – P	lanting of Pot hole fill	ing sites		
Management Zone	Native Plantings Current Cover	Native Plantings Year 1 Cover	Native Plantings Year 2 Cover	Native Plantings Year 4-5 Cover	Native Plantings Year 6-20 Cover
All Zones	0	60% survival of all stratum planted in each pot hole All dead plantings must be replanted	70% survival of all stratum planted in each pot hole All dead plantings must be replanted	80% survival of all stratum planted in each pot hole All dead plantings must be replanted	80% survival of all stratum planted in each pot hole
	Fencing, bollar	rds, gates and Signag	e	·	
	Commencement	Year 5	Year 10	Year 15	Year 20 plus
Boundary Fence, bollards, gates and Signage	Installation where required	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.
	Temporary Fencing	of tracks being Reger	nerated	,	
	Commencement	Year 5	Year 10	Year 15	Year 20
All Zones	Installation where required	Must be monitored, maintained in s good state to preform required task.	Removed, when regeneration meets Benchmark conditions of the PCT as outlined by the BCT.	-	-
	Pest	Management			

3043 – Garden Suburbs BSA VMP 38 16 September 2024



	Level 1	Level 2	Level 3	Level 4	Level 5
All Zones	Commencement	Year 1-5	Year 6-10	Year 11- 15	Year 16 plus
	Installation of monitoring camera's to establish estimated population.	Annual monitoring	Annual monitoring	Annual monitoring	Annual monitoring
	Social Member advertisement around domestic pets in the BSA	Social Member advertisement around domestic pets in the BSA	Social Member advertisement around domestic pets in the BSA	Social Member advertisement around domestic pets in the BSA	Social Member advertisement around domestic pets in the BSA
	Annual Trapping and Baiting.	Annual Trapping and Baiting.	Annual Trapping and Baiting.	Annual Trapping and Baiting.	Annual Trapping and Baiting.
	Installation of tree guards on plantings	<ul> <li>Quarterly monitoring</li> <li>Remove from site at end of year 5 to reduce litter.</li> </ul>	-	-	-
Track and bridge					
	Commencement	Year 5	Year 10	Year 15	Year 20 plus
Track and bridge maintenance	<ul><li>Installation of bridges.</li><li>Upgrades to retained paths</li></ul>	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.	Must be monitored, maintained in s good state to preform required task.
	TJ	Monitoring			
	Commencement	Year 1-5	Year 6-10	Year 11- 15	Year 16 -20

3043 – Garden Suburbs BSA VMP 39 16 September 2024



	Level 1	Level 2	Level 3	Level 4	Level 5
All Zones	Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage
Plant Community Monitoring	Commencement	Year 1-5	Year 6-10	Year 11- 15	Year 16 -20
All Zones	Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage	Annual Mapping of extent and record health and coverage
Native Fauna Monitoring	Commencement	Year 1-5	Year 6-10	Year 11- 15	Year 16 -20
All Zones	Installation of monitoring camera's to establish estimated population.      Spot lighting	<ul> <li>Annual of monitoring camera's to establish estimated population.</li> <li>Spot lighting</li> </ul>	Annual of monitoring camera's to establish estimated population.	Annual of monitoring camera's to establish estimated population.	Annual of monitoring camera's to establish estimated population.



# 4.0 Site Preparation

Prior to the commencement of regeneration, the BSA Lands must be prepared. The Owner must notify the department electronically of the date of commencement of works, within 5 business days following commencement of the works. The following works have been recommended to assist in site preparation.

## 4.1 Temporary Fencing

Fencing is to occur prior to any clearing activity commencing within the adjacent development. The following works are to be undertaken:

- Fencing of tracks to be regenerated with five strand plain wire and star pickets in accordance with the BCT Essential conservation fencing infrastructure guidelines; and
- Temporary fencing and signage will be installed at the start of any walking trail proposed for restoration and will extend 30m either side of the trail (refer **Figure 2**). Fencing to be 5 strand plain wire steel post fence. The temporary fencing will remain in place for 5 years.

Biannual inspection is to be undertaken until performance indicators are achieved and temporary fencing can then be removed. Areas requiring maintenance will be repaired within two (2) months.

## 4.2 Site induction

Induction for all personnel entering/working onsite should highlight the following:

- Identification of key points of environmental value and any relevant matters of national environmental significance (particularly Black-eyed Susan habitat);
- Understanding the requirements of the environmental management plan and the individual's role;
- Environmental incident emergency response procedures;
- Site environmental controls; and
- An outline of the potential consequences of not meeting their environmental responsibilities.

The importance of avoiding all impact to this land including all the following activities:

- Clearing of vegetation;
- Storage of vehicles or machinery;
- Stockpiling, materials storage;
- Unauthorised access; and
- Dumping of rubbish or building waste.

In addition, site induction should include the implementation of weed, pathogen and disease controls highlighted in **Section 4.3** below.

# 4.2.1 Emergency Contacts and Procedures

The following key emergency contacts responsible for managing environmental emergencies associated with the project and their contact details are listed below:

- Landcom (Project Manager/Owner) Alex Seal 0450 111 396/Main office reception (02) 9841 8600.
- KCE (Civil Contractor) (02) 4922 5000



- AEP (Project Ecologist) Craig Anderson 0418 681 581
- Lake Macquarie City Council (Local Council) (02) 4921 0333

It is to be noted that the successfully appointed Bush Regenerator Contractor (BRC) shall be included as emergency contacts, once decided.

AEP undertake Safe Work Method Statement (SWMS) to assesses hazards and risks of the field activities and the control measures to reduce the risk on site and follow the AEP Standard Operating Procedures (SOP) to establish procedures within the Emergency Response and Safety Plans.

# 4.3 Weed / Pathogens / Disease Control

Diseases and which could affect the BSA Lands include the root-rot fungus (*Phytophthora cinnamomi*) and Myrtle rust (*Puccinia psidii*), affecting Myrtaceous plants including the Eucalyptus species present onsite as well as Amphibian Chytrid fungus disease, Chytridiomycosis, caused by Chytrid fungus (*Batrachochytrium dendrobatidis*).

To minimise the potential for any such introductions, it is recommended that appropriate hygiene controls be employed and hygiene stations supplied:

## Plant, Machinery, Tools and Boots Hygiene

- All plant/machinery is to be washed down upon entry to site and prior to exiting site;
- The location of wash down bays is to be clearly identified within the site;
- All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;
- Boots should be clean and free of soil and seeds before entry to site and before exiting site;
- Boots should be sterilised in a similar manner to tools after soil and seed removal; and
- Sterilisation of tools and boots shall be undertaken using 60% alcohol, methylated spirits or Phytoclean™ applied via spray bottle or brush dipped in the mixture.

### Phytophthora cinnamomi

- Minimisation of work during excessively wet or muddy conditions;
- All personnel to be inducted on Phytophthora identification and management; and
- All plants and soils used/brought into site must be disease-free.

### **Amphibian Chytrid fungus**

- Minimisation of work during excessively wet or muddy conditions;
- All personnel to be inducted on Chytrid management measures for the site; and
- Handling of frogs only when necessary; using fresh disposable gloves to handle individual frogs.

### Myrtle Rust

- All personnel to be inducted into the identification and management of Myrtle rust; and
- Should any areas on site be identified as areas contaminated by the above, additional
  exclusion measures including, work program directions, soil storage and waste disposal
  programs must be implemented.



### 4.4 Erosion and Sedimentation Control

An Erosion and Sedimentation Control Plan (ESCP) should be prepared for the proposed development and may form part of the CEMP. Erosion and Sediment control measures should be implemented in accordance with specifications set out in the latest edition of the Landcom publication "Soils and Constructions – Volume 1 (The Blue Book)".

The potential for erosion to arise from weed control activities is low due to the minimal cover of exotic species. However, large scale removal of weeds may leave bare areas exposed to the elements and prone to erosion. As such, weed control activities and methods employed should weigh the potential to generate erosion. The requirement to implement temporary erosion and sedimentation control as part of weed control activities will be at the discretion of the Bush Regeneration Contractor.

### 4.5 Rubbish Removal

Rubbish and waste are to be removed from BSA Lands. The need to remove such material should be assessed on a case-by-case basis as in some instances the material is inert, such as concrete, rocks and timber posts, etc. Such material may inadvertently provide geomorphic stability and suitable shelter and habitat for native fauna.

### 4.6 Mine Subsidence Remediation

Given the site constraints noted during the site walkover inspection, which include very limited access in parts, and the need to avoid damaging existing flora and fauna including Black-eyed Susan habitat, mine subsidence pothole remediation will be undertaken in accordance with the following methodology:

- Impacts to existing fauna and flora will be mitigated as much as possible during the remediation
  of any identified potholes. All work will be supervised by an accredited ecologist and efforts
  will be made to utilise existing access tracks as far as possible to minimise any vegetation
  disturbance to access the potholes. The following remediation methodology is required to fill
  the potholes:
- Vehicle and machinery movements only on identified access tracks where possible;
- Where any loose deleterious materials such as tree stumps and / or vegetation are present in the potholes, these materials should remain in place and be fully encapsulated in the placed fill. Existing rubbish / anthropogenic materials (where present) should be removed and disposed to landfill;
- Fill will be placed in layers of nominal 500 mm loose thickness (as far as practical), and progressively compacted / tamped using an excavator bucket or tracks of an excavator or skidsteer loader (depending on the available equipment). It is noted that due to the size of some of the potholes and the limited available access to the perimeter of the potholes for equipment, placement of thicker fill layers may be required initially, prior to compaction by tamping;
- The fill should preferably be a low permeability material which is consistent with the existing surrounding ground conditions (i.e. clay and / or ripped siltstone / sandstone) with a maximum particle size no greater than 100 mm, and should be free of deleterious materials. The fill will be imported fill that will be classified as excavated natural material (ENM) or virgin excavated natural material (VENM) and of a similar profile to the surrounding landscape. A Materials Classification Report will be provided to confirm the fill material is free of any contamination and will not impact on the protected matter. Additionally, fill material will also undergo Perfluroalky and Polyfluoroalkyl substances (PFAS) contamination testing;



- Once placement of fill is completed, the finished surface will be compacted, preferably via tracking with an excavator or skid-steer loader, or a compaction wheel fitted to the arm of an excavator, in order to effectively seal the surface of the filling to prevent water ingress;
- The finished surface should be contoured and preferably mounded so as to direct surface water away from the location of the previous pothole; and
- On completion, a photograph of the completed works should be recorded for each pothole, with the pothole ID clearly displayed.

Pothole remediation is proposed to be undertaken outside of the peak Black-eyed Susan flowering period to further minimise any potential impacts.

## 4.6.1 Specific Machinery Required to Backfill the Potholes

Skid steer loader, possibly in conjunction with a small excavator (≤5 tonne) with fill materials stockpiled in a suitable location remotely from the pothole locations, and then transported in to the pothole locations via the skid steer loader / excavator. As detailed in the Construction Environment Management Plan − Retained Lands and Road Works - Myall Road, Hillsborough, NSW EPBC Ref - 2014/7217 Notice of Approval for Residential Development, Hillsborough, NSW Unpublished report by AEP 17 June 2024, the selected contractor KCE will use rubber tracked machinery of 2.25m in width that may cause minor temporary impacts to habitat on track edges but will not significantly disturb the soil surface.

### 4.6.2 Minimum Width for Each Access Track

Approximately 2.5 m with rubber tracked machinery of 2.25m width organised for the VMP Lands.

## 4.6.3 Minimum Turning Areas Required for the Machinery

Skid-steer loaders and excavators have 'zero-radius' turning capabilities. The turning area in this case would be roughly equivalent to the access track width.

## 4.6.4 Minimum Area of Impact for Each Pothole Repair

The area of the potholes, which average 4m in diameter will total an approximate area of impact of 0.181ha within the VMP Lands which includes the track access.

### 4.6.5 Active Restoration

The following methodology and protocols will be utilised for restoration pothole mine subsidence remediation areas (Management Zones 6 and 7):

Tracks created to undertake remediation will be temporarily fenced post-remediation works to allow for vegetation restoration. The temporary fencing excluding access to the restoration area will be removed after 5 years.

Active restoration will consist of supplementary plantings throughout the entirety of Management Zone 6 utilising species listed in **Appendix B.** Plantings will be undertaking in accordance with the following management actions and costed in the TFD:

- Mulching;
- 2. Initial planting, watering and installation of tree guards;
- 3. Weekly water for 3 months after initial planting;
- 4. Monthly water 4-12 months after initial planting;



- 5. Watering cease 12months after initial planting;
- 6. Primary weeding to occur monthly for 12months after initial planting;
- 7. Weeding to occur every 3 months for the 1–5-year period post initial planting;
- 8. Dead plants to be replaced monthly for 12months after initial planting;
- 9. Dead plants to be replaced 6-monthly for the 2-5-year period post initial planting;
- 10. Tree guards to be replaced monthly for 12months after initial planting as required;
- 11. Tree guards to be replaced 6-monthly for the 2–5-year period post initial planting as required; and
- 12. Tree guards to be removed 5 years after initial planting.

# 4.6.6 Hygiene Protocols

During all mine subsidence remediation works, biosecurity protocols will be implemented to prevent the introduction and spread of weeds and pathogens.

Hygiene control stations will be supplied for Plant, Machinery, Tools and Boots Hygiene, and the following hygiene controls will be employed:

- All plant/machinery is to be washed down upon entry to site and prior to exiting site;
- All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;
- Boots should be clean and free of soil and seeds before entry to site and before exiting site;
- Boots should be sterilised in a similar manner to tools after soil and seed removal.; and
- Minimisation of work during excessively wet or muddy conditions.

All plants and soils used/brought into site must be disease-free.

## 4.7 Permanent Fencing

When installing and maintaining fencing and signage, the Owner must meet the following requirements:

- Existing intact boundary fencing will be maintained. Approximate total length of 1170.24m (see Figure 2);
- Bollards and heavy swing gates are to be installed at each of the 19 BSA Site pedestrian access points that will restrict access by any private vehicles and motorbikes;
- Permanent fencing will be installed along the northern portion of the BSA Site adjacent Myall Road, on the western portion to exclude residential APZs and at each BSA Site pedestrian access (refer **Figure 2**);
- Fencing to be prefabricated 'hinged joint', galvanised wire mesh fence; mesh size will be in accordance with the BCT Essential Conservation Fencing Guide;
- Permanent fencing will be installed at each pedestrian access point (refer Figure 2). Fencing length and direction will consider native vegetation coverage at each pedestrian access point and be installed to avoid native vegetation removal. For the purposes of the TFD calculation, 20m of fencing (10m either side) has been mapped at each access point. Fencing to be prefabricated 'hinged joint', galvanised wire mesh fence; mesh size will be in accordance with the BCT Essential Conservation Fencing Guide;



- Ensure protective fencing is installed along the site boundary / development interface adjacent to *T. juncea* (Black-eyed Susan) populations.
- Total length of permanent fencing will be approximately 1552.77m;
- A pedestrian access bridge will be installed across the creek in the south west at the existing
  walking trail crossings (refer Figure 2). TFD is estimated on a design of 6-10m long, 1500mm
  wide, balustrade/handrail, FRP Deck, 3kpa loading, concrete entry/exit ramp 5m long each
  end;
- A pedestrian boardwalk of approximately 40m will be installed across the creek in the south east at the existing walking trail crossings (refer Figure 2). TFD estimate based on 40m long boardwalk, 1500mm wide, no balustrades or handrails, includes kick rail, FRP Deck, Headstock subject to design and Geotechnical advice; and
- Biodiversity Stewardship Site and Responsible Pet Ownership signage is to be displayed at each of the nineteen (19) BSA Site pedestrian access points.

## 4.8 Trail Restoration

Some existing paths to be remediated and fenced to exclude human activity, to assist natural regeneration. The regeneration of the tracks is not proposed to be staged. The clearing of the approved adjoining development will provide all the material required to Brush Mat the tracks with material from the greater Study Area. As requested by the CST the material should provide native local seeds from the local area to assist with regeneration.

Brush matting will be used to cover and seed walking trails in Management Zone 5, with the following works to be undertaken:

- Restoration of existing walking trails via installation of brush matting;
- The supply of Brush Matting material will be through the collection of small timber and seeded material from the adjacent development;
- The material will be collected and stored in large bins to retain seed material;
- The salvaged small timber, leafy material and seed matter will be dispersed over Management Zone 5;
- Trail restoration will aim to achieve benchmark vegetation cover conditions across all trails
  from year 15+. Ongoing monitoring as per Section 5.5 will be undertaken to inform adaptive
  management actions and effectiveness of public education; and
- Public education to include signs providing information on Stewardship Site purpose, objectives and method to achieve objectives.

## 4.9 Monitoring and Reporting

Biannual inspection is to be undertaken until performance indicators are achieved and temporary fencing can then be removed. Areas requiring maintenance will be repaired within two (2) months.

All monitoring data which includes, surveys, maps, and other spatial and metadata required under the conditions of this approval will be prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018 and the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021.



# 5.0 Implementation of Regeneration

AEP have established a total of twenty-five (25) monitoring and photo points, spread throughout the seven (7) Management Zones within BSA Lands. Baseline data was collected at eighteen (18) plots to assess current vegetation conditions. Seven (7) of the 25 plots will need Baseline VI plots to be undertaken within 6 months of BSA commencement. With baseline data collected, the BRC will commence with works to meet the targets for Year 5:

- Primary weed removal;
- Planting of Vegetation (see Appendix B for detailed species). All plant stock must be
  provenance specific seed / material collected from locally endemic species, grown by suitably
  experienced and qualified nurseries, and hardened-off before planting. This will ensure the
  structure and composition of these communities will meet the targets set; and
- Mulching and watering.

It's noted that clearing of vegetation may not commence until the Biodiversity Stewardship Agreements Sites have been registered in accordance with the *Biodiversity Conservation Act 2016* (NSW), and within 10 business days of the Biodiversity Stewardship Agreement Sites being registered in accordance with the *Biodiversity Conservation Act 2016* (NSW), submit written evidence of that registration to the department.

# 5.1 Weed Management

Weeds have significant impact on structural integrity of the vegetation present. All weed control methods to be in accordance with the NSW Weed Control Handbook.

Any weed management action will consider known locations of *T. juncea* (Black-eyed Susan). Weed control methods are to be limited to the following in areas of known *T. juncea* habitat, subject to target weed species requirements:

- Hand removal;
- Gas guns;
- Scrape and paint;
- Cut stump method;
- Stem injection; and
- · Weed wipers.

## 5.1.1 Priority Weeds for Onsite Management

Flora surveys identified the following weeds present.

- Lantana camara (Lantana)
- Chrysanthemoides monilifera subsp. Rotundata (Bitou bush
- Cinnamomum camphora (Camphor Laurel)
- Ehrharta erecta (Panic Veldtgrass)
- Asparagus aethiopicus (Asparagus Fern)
- Ligustrum sinense (Small-leaved Privet)
- Ligustrum lucidum (Large-leaved Privet)



- Ochna serrulata (Ochna)
- Tradescantia fluminensis (Trad)
- Stenotaphrum secundatum (Buffalo Grass)
- Ageratina adenophora (Crofton Weed)
- Nephrolepis cordifolia (Fishbone fern)

The aforementioned exotic species will be the focus of weed management activities, based on legal requirement to control the species listed as Weeds of National Significance and Priority Weeds for the Hunter Region (Hunter Strategic Weed Management Plan 2023-2027) under the Biosecurity Act 2015 (**in bold**), as well as other species occurring in high density onsite that have the potential to further colonise the BSA Lands and undermine regeneration efforts. A list of all weed species identified onsite is provided in **Appendix A**. A full list of Flora found onsite can be found in Appendix A of BSSAR (AEP 2024). Weed locations are presented in **Figure 5** below.

The *Biosecurity Act 2015* outlines several 'duties'; the general biosecurity duty, and additional duties under mandatory measures, regional measures, prohibited matter or biosecurity zone. Specific action for these measures may be required.

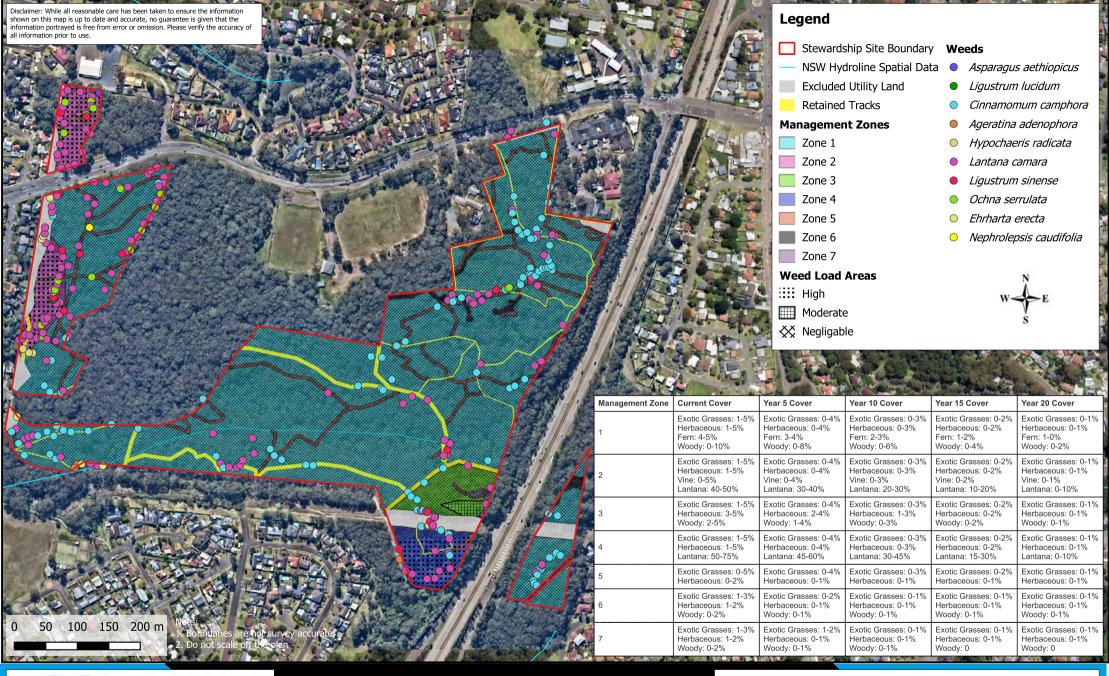




Figure 5 - Weed Management Zones

Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323

Client: Landcom

AEP ref: 3043

Date: April 2024



# 5.1.2 Sequential Weed Control

Weed Control works within each Management Zone are to be undertaken by a qualified bushland regeneration team using industry standards.

Any reproductive material of weeds, including weeds which can spread vegetatively, or seeds, must be taken off site to be disposed of at an appropriate local waste management centre. No weed material with the potential of spreading must be stockpiled within the development site or BSA Lands.

- 1. **Primary Weeding** First six-months. This is where most problematic weeds are removed from Management Zones.
- 2. **Consolidation (Secondary and tertiary weeding)** Six-months following the completion of primary weeding. Management Zones will require monthly visits to remove weeds that are regenerating and / or have grown in response to the disturbance. These visits are essential, otherwise the weeds will recolonise and inhibit native regeneration.
- Maintenance Weeding Starts six-months to a year post-secondary or tertiary weeding and will continue on a monthly basis for the following year. Maintenance will decrease overtime based on weed cover of Management Zones. Changes to frequency will be outlined in annual reports.

This interval will be evaluated based on-site condition during each monitoring period. Depending on the management zone, weed control works across the site are to be undertaken over the maintenance period of up to twenty (20) years. However, given the adaptive management approach, this time-frame is flexible, and may need to be extended based on changing site conditions and monitoring results indicating management zones have reached targets set out in this VMP.

## 5.1.3 Herbicides

Where herbicide usage is proposed, the following factors are to be taken into consideration when selecting the herbicide:

- The safety of the particular herbicide to users and use near waterways, desirable plants, soil micro-organisms, amphibians, birds and mammals; and
- The economics and time constraints of using herbicides over other methods of weed control.

Directions must be strictly followed and all precautions followed over time. For example, Glyphosate herbicides are systemic and non-selective. All staff spraying herbicide must possess an AQF3 Chemical Accreditation.

## 5.1.4 Reuse of Biomass

Some of the vegetation removed from the development site should be reused to benefit the BSA Lands.

- Salvaged logs should be placed at the interface between the future development and the BSA Lands to create a physical buffer that will provide some level of protection to the vegetation present;
- Hollow limbs should be cut into manageable sections and placed into the BSA Lands at the rate of approx. 20m/ha to provide supplementary ground habitat for native fauna;
- Due to the sensitive nature of the retained vegetation no machinery should enter the BSA Lands. Instead, logs should be carried by the clearing supervision ecologist into suitable locations, utilising existing tracks to avoid impacts to Black-eyed Susan habitat.



## 5.2 Planting of Native Vegetation

A site-specific planting list has been provided (see Appendix B) based on the PCT present onsite.

Active restoration will consist of supplementary plantings throughout the entirety of Management Zone 6 and 7 utilising species listed in **Appendix B.** Plantings will be undertaken in accordance with the following management actions and costed in the TFD:

- 1. Mulching;
- 2. Initial planting, watering and installation of tree guards;
- 3. Weekly water for 3 months after initial planting;
- 4. Monthly water 4-12 months after initial planting;
- 5. Watering cease 12 months after initial planting;
- 6. Primary weeding to occur monthly for 12months after initial planting;
- 7. Weeding to occur every 3 months for the 1–5-year period post initial planting;
- 8. Dead plants to be replaced monthly for 12 months after initial planting;
- 9. Dead plants to be replaced 6-monthly for the 1-5-year period post initial planting;
- 10. Tree guards to be replaced monthly for 12 months after initial planting as required;
- 11. Tree guards to be replaced 6-monthly for the 1–5-year period post initial planting as required; and
- 12. Tree guards to be removed 5 years after initial planting.

These measures will enable the structure and composition of these communities to meet the targets set.

# 5.3 Pest Species

No significant evidence of feral animals has been observed within BSA Lands to date. However, if monitoring within management zones indicates pest species pose notable impediments to achieving the aims of the VMP (i.e., through excessive browsing, burrowing, spreading seed etc.), then management actions will be reviewed to address these issues.

It is strongly recommended to engage with Local Land Services (LLS) and adjacent landholders to identify the most suitable approach to control pests in the locality. The most effective approaches to consider include:

- Baiting with Pindone;
- Trap with fresh meat baits free of poison;
- Bait with 1080 poison in line with Local Land Services (LLS) guidelines; and
- Shoot on sight along tracks or where previously observed, or in accordance with local directives from LLS.

Note that baiting with 1080 should not occur less than 500m from habitations as per LLS guidelines and as such should not be used onsite. Pindone is the only poison that can be used in urban area. Also note that Shooting is not recommended due to proximity to existing and proposed urban development.

If during routine monitoring, pest species are found at higher abundances than baseline or are impacting on biodiversity values within a specific management zone, additional remote motion sensing cameras should be deployed. Furthermore, monitoring and control frequency should be increased until pest



species numbers are observed to have either reached or fallen below baseline abundance in that management zone.

# 5.3.1 Other Management Activities

A pest control program will be implemented when monitoring detects pest vertebrate species within the site. This program will aim to reduce pest vertebrate numbers and their associated impacts on native biodiversity. Consideration will be given to the presence of domestic animals and returned to the owners where captured. An educational flyer will be developed, and provided to the owners of captured animals, outlining the importance of BSS and the negative impacts pest vertebrate species can have on native biodiversity. The pest control program should be conducted:

- In accordance with NSW Codes of Practice and Standard Operating Procedures for the effective and humane management of pest animals (https://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/publications/standard-operatingprocedures);
- In accordance with PestSmart Code of Practice (COP) outlining the best practice management for specific pest vertebrate species;
- The Landholder will cooperate with surrounding landholders, LLS, NPWS or other relevant agencies or local groups conducting feral pest management to maximise effectiveness; and
- By experienced and suitably qualified personnel.

Four baited motion sensor cameras will be deployed annually for 10 nights, spread evenly across the BSA Land. The presence of pest vertebrate species will be recorded.

Community engagement and education through educational flyers and signage outlining importance of BSS, the potential negative impacts pest vertebrate species can have on native biodiversity and the proposed pest vertebrate management actions that will be conducted within the site:

 Installation of educational signage throughout the site should be installed at all locations outlined in the Biodiversity Stewardship Site Management Actions Map in Year 1. Signs are to be inspected for presence, condition and maintenance requirements during annual monitoring events. Any signs that are missing or cannot be maintained should be replaced within 3 months.

## 5.4 Project Management

The client will be responsible for the engagement of a suitably qualified Bush Regeneration Contractor (BRC) to undertake weed control and planting works outlined in this VMP.

Bush Regenerator(s) or company(s) shall have;

- Australian Association of Bush Regenerators (AABR) Accreditation. The Bush Regenerators shall hold a current AQF3 qualification;
- Site Supervisor must have demonstrated minimum of 4 years' experience in the bush regeneration or related field and must have experience at a supervisory level in providing training, supervision and technical advice to staff, clients, volunteers and members of the public; and
- The Site Supervisor must hold a current AQF 3 qualification or higher and must have completed the Bush Regeneration Level IV Certificate or have a diploma or degree in a field related to natural resource management.

An official handover of the VMP to the BRC will be conducted by the Project Ecologist at the time of baseline monitoring and data collection (See **Section 5.5**). This will be undertaken via a site walkover



and provide the opportunity to discuss VMP actions, targets, methodologies, requirements of sediment and erosion control, pest management and zone-specific management issues.

# 5.5 Monitoring and Reporting

The Project Ecologist will be responsible for the establishment of monitoring points within the BSA Lands along with collection of baseline data that will be monitored over the twenty-year period of this BSA with reporting on the achievement of overall targets, Black-eyed Susan habitat and condition, weed management, and regeneration approach success. Monitoring will occur at commencement on a Biannual basis for the first five years then once every five years thereafter for the duration of the BSA and just for the first 5 years under the VMP with the same targets.

All monitoring data which includes, surveys, maps, and other spatial and metadata required under the conditions of this approval will be prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018 and the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021.

The data gathered above and all species occurrence record data (sightings and evidence of presence), will be submitted to the department annually, within 30 business days of each 12-month period. The format of each report submitted will follow the specific guidelines set out within the *Annual Compliance Report Guidelines, Commonwealth of Australia 2014*.

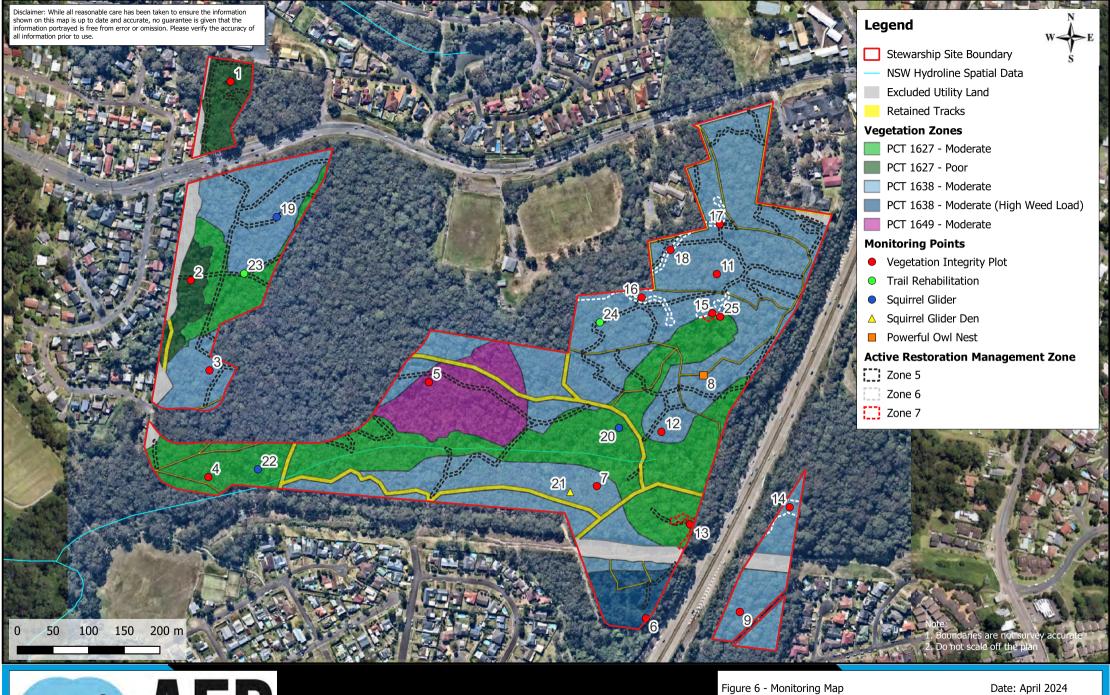
#### 5.5.1 Baseline Data

Baseline monitoring and data collection was commenced prior to site preparation. Twenty-five (25) monitoring points have been identified within the BSA Lands (refer **Figure 6**). Seven (7) of the 25 plots will need Baseline VI plots to be undertaken within 6 months of BSA commencement.

The location of each monitoring point was marked with a GPS waypoint to facilitate identification in the field and will be used as photo monitoring point.

Baseline data included data from standard BAM plots:

- Floristic composition (diversity of native and exotic species) within 20mx20m quadrat;
- Floristic structure Projected Foliage Cover (both native and exotic species expressed in percentages) within 20x20m quadrat;
- Function attributes within a 20m x 50m plot including:
  - Record of stem classes;
  - Number of hollow-bearing trees;
  - length of logs; and
  - Leaf litter cover (in percentage) within five 1m x 1m subplots.
- Overall health of the BSA Lands;
- Photo records at monitoring points; and
- Record incidental fauna.





Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW

Lot 1 DP1168657, Lot 100 DP811772, Lot 10 DP1011323

Client: Landcom AEP ref: 3043



# 5.5.2 Bush Regeneration Contractor Monthly Summary of Work

The BRC will provide a monthly summary of works undertaken which will be reviewed by the Project Ecologist and added to the annual report. If any issues arise these will be outlined in the monthly summaries and the BRC and Project Ecologist will determine action required to meet the set targets. If such determination requires significant change to the management outline in the VMP, the Project Ecologist will contact Lake Macquarie City Council to inform them of the changes.

# 5.5.3 Monitoring by Project Ecologist

## **Biannual Monitoring**

Biannual monitoring is to occur by the Project Ecologist to determine the following:

- Any human disturbance on the Biodiversity Stewardship Site;
- The physical condition of access tracks within the Biodiversity Stewardship Site, their navigability and evidence of erosion;
- The presence of Rubbish on the Biodiversity Stewardship Site; and
- The physical condition of fencing and gates.

## **Annual Monitoring**

Annual monitoring is to occur by the Project Ecologist to determine the following:

- · Assess the effectiveness of Threatened Species habitat management actions; and
- Detect the presence of vertebrate pest species.

Annual monitoring will inform the evaluation of management effectiveness, until the Regeneration Benchmark Targets are met.

#### 5-Yearly Monitoring

This is to monitor improvements from baseline Vegetation Integrity Plots every 5 years, (spring preferably) from commencement for up to twenty years.

Monitoring should include the metrics as described within the BAM Ecological Monitoring Module (EMM) but should also include information such as:

- Effectiveness of weed control methods;
- Utilisation rate of nest boxes; and
- State of fencing and erosion and sedimentation measures.

## 5.5.4 Black-eyed Susan Monitoring

Monitoring surveys are to occur in September-October as per TBDC survey guidelines. These surveys are to undertaken in all management zones, once every five (5) years within a twenty (20) year period. Monitoring will be undertaken in monitoring points 1-7, 9-18 and 25 VI plots. *T. juncea* counts within VI Plots will be undertaken as per LMCC (2012) *Flora and Fauna Survey Guidelines*, and following methodology as described by Payne, Stevenson, and Wellington (2002).

*T. juncea* clumps will assume one (1) plant where there is a gap greater than 0.30m and this will be counted as a separated plant. Condition will be recorded by estimating the cover of each plant, visual appearance, such as flowering and colour. Each plant will be numbered for identification in accordance



with the associated monitoring point and provide details incl. Eastings and Northings, Monitoring Frequency, Baseline ecological state, and Target ecological state.

Performance measures include an increase number of individuals detected during monitoring surveys within all management zones and an increase population health (species count) at monitoring point 2, 5, and 12.

## 5.5.5 Reporting

Pest monitoring and bush regeneration progress reports are to be submitted to Lake Macquarie City Council's Ecologist annually for a minimum of five years following issue of the construction certificate. In addition, every five years vegetation Integrity and Black-eyed Susan progress reports will be submitted to Lake Macquarie City Council's Ecologist. Reports are to detail the progress of the works and any recommended additional actions, with a final report certifying completion of the VMP at the end of the implementation period, or once the specific objectives of the plan have been met. Any recommended additional actions must be completed to the satisfaction of Lake Macquarie City Council Ecologist prior to lodgement of the final report.

Once in a state of Natural Regeneration following completion of the VMP period, management of the site will be undertaken in accordance with the *Biosecurity Act 2015 & Biosecurity Regulations 2017*.

### 5.6 Interventions

With all regeneration plans, objectives and targets are set based on good conditions, however, this may not always be the case. The following table has been prepared an immediate and concise action plan is generated to ensure targets can be achieved.

Table 5 - Intervention Steps

Element Change	Step 1	Step 2	Step 3	Step 4	Step 5
Fire	BRC to notify	Assess impact	Prepare	Submission of	Implement
Flood	Project Ecologist and	BSA Lands.	regeneration plan	notification and modified Plan to	approved Plan
Drought	arrange a joint			Council.	
Other weather event	site inspection.				
Pest Species damage					
Introduction of pathogen					
Vandalism					
Theft					

**Section 6** and **Table 9** elaborates this process further.

## 5.6.1 Fire

Fire management is not proposed for the BSA Land. The BSA Sites occur in a highly urbanised environment and is adjacent RFS designated Special Fire Protection Purpose facilities including an aged care home and youth education and hostel facility. Current site access requirements and infrastructure do not meet minimum RFS standards to undertake ecological burns. Upgrades to meet the requirements would require the removal of native vegetation. Given the site context, Fire Management is not considered safe or appropriate and has been removed from the Management Plan.



## 5.7 Risk Evaluation

The below risk matrix was used to calculate the level of risk by finding the intersection between the likelihood and the consequences.

Table 6 - Risk Matrix

Likelihood		С	onsequence		
Likeiiiioou	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	Extreme	Extreme	Extreme
Likely	Medium	Medium	High	Extreme	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	Medium

**Table 7** below provides an analysis on potential risks and mitigation measures in place that decrease the risk occurring or the consequence that will result.



Table 7 – Risk Analysis

Potential Impact	Risk Weighting	Risk Mitigation
Direct impact on vegetation from vehicle and machinery movements	Medium	Contractors are to utilise the existing tracks where possible and keep clear of Black-eyed Susan habitat.
Indirect impacts from edge effects	Medum	The following measures shall be in place to manage potential edge effects:  Temporary fencing is to be installed prior to any works; Installation of sediment and erosion control measures; Weeds to be controlled by the appointed BRC; and Active restoration is to occur post works. The combination of measures listed above shall significantly decrease the consequence of edge effects.
Indirect impacts to Black-eyed Susan from weed spraying	Medium	Any weed management action will consider known locations of <i>T. juncea</i> (Black-eyed Susan). Weed control methods are to be limited to the following in areas of known <i>T. juncea</i> habitat, subject to target weed species requirements:  • Hand removal;  • Gas guns;  • Scrape and paint;  • Cut stump method;  • Stem injection; and  • Weed wipers.
Weed, Pathogens, Disease impacts	Medium	<ul> <li>Plant, Machinery, Tools and Boots Hygiene</li> <li>All plant/machinery is to be washed down upon entry to site and prior to exiting site;</li> <li>The location of wash down bays is to be clearly identified within the site;</li> <li>All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;</li> <li>Boots should be clean and free of soil and seeds before entry to site and before exiting site;</li> <li>Boots should be sterilised in a similar manner to tools after soil and seed removal; and</li> </ul>

3043 – Garden Suburbs BSA VMP 58 16 September 2024



Potential Impact	Risk Weighting	Risk Mitigation
		<ul> <li>Sterilisation of tools and boots shall be undertaken using 60% alcohol, methylated spirits or Phytoclean™ applied via spray bottle or brush dipped in the mixture.</li> <li>Phytophthora cinnamomi</li> </ul>
		<ul> <li>Minimisation of work during excessively wet or muddy conditions;</li> <li>All personnel to be inducted on Phytophthora identification and management; and</li> <li>All plants and soils used/brought into site must be disease-free.</li> <li>Amphibian Chytrid fungus</li> </ul>
		<ul> <li>Minimisation of work during excessively wet or muddy conditions;</li> <li>All personnel to be inducted on Chytrid management measures for the site;</li> <li>Handling of frogs only when necessary; using fresh disposable gloves to handle individual frogs.</li> </ul>
		Myrtle Rust     All personnel to be inducted into the identification and management of Myrtle rust; and
		<ul> <li>Should any areas on site be identified as areas contaminated by the above, additional exclusion measures including, work program directions, soil storage and waste disposal programs must be implemented.</li> </ul>
Direct impact on vegetation from mine remediation works	Medium	All work will be supervised by an accredited ecologist and efforts will be made to utilise existing access tracks as far as possible to minimise any vegetation disturbance to access the potholes.
Direct impact on Black-eyed Susan habitat	High	<ul> <li>The following measures shall minimise potential impacts on Black-eyed Susan habitat:</li> <li>Ensure protective fencing is installed along the site boundary / development interface adjacent to T. juncea (Black-eyed Susan) populations;</li> <li>Any weed management action will consider known locations of T. juncea (Black-eyed Susan);</li> <li>Induction for all personnel entering/working onsite should highlight the sensitive nature of the conservation land (Particularly Black-eyed Susan habitat) and discuss the importance</li> </ul>
		of avoiding all impact to this land including all the following activities:  Clearing of vegetation; Storage of vehicles or machinery;



Potential Impact	Risk Weighting	Risk Mitigation
		Stockpiling, materials storage;
		Unauthorised access; and
		Dumping of rubbish or building waste.
Direct impact from human activity	Medium	<ul> <li>Temporary fencing and signage will be installed at the start of any walking trail proposed for restoration and will extend 30m either side of the trail;</li> </ul>
		<ul> <li>Bollards and heavy swing gates are to be installed at each of the 19 BSA site pedestrian access points that will restrict access by any private vehicles and motorbikes;</li> </ul>
		<ul> <li>Trail restoration will aim to achieve benchmark vegetation cover conditions across all trails from year 15+. Ongoing monitoring as per Section 5.5 will be undertaken to inform adaptive management actions and effectiveness of public education; and</li> </ul>
		<ul> <li>Public education to include signs providing information on Stewardship Site purpose, objectives and method to achieve objectives.</li> </ul>



Table 8 - Proposed Works Schedule

Person	Activity	Specific Action		Yea	ar 1			Yea	ar 2		Year 3			Year 4				Year 5				BSA Ongoing till Year 20			till	
Responsible		Action	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Civil Contractor Lands Preparati on VMP/BSA Linstallation / removal of fencing and signage Installed at the beginning of Year 1 and will remain in place for 5 years.																										
		Implementation of pathogen and disease controls	To be	be implemented throughout the duration of the VMP/BSA																						
		Installation of sediment and erosion control	Insta	stalled at the beginning of Year 1 and monitored throughout the duration of the VMP/BSA.																						
		Rubbish removal	To be	e asses	ssed or	n a cas	e-by-ca	ase bas	sis throu	ughout	the du	ıration	of the \	VMP/B	SA.											
		Mine Subsidence Remediation																								
		Trail Restoration		restora rtaken.		vill aim	to ach	ieve b	enchma	ırk veç	etation	covei	r condi	tions a	icross	all trail	ls from	year	15+. O	ngoing	monito	oring a	s per S	Section	5.5 w	ill be
BRC	Weed Control	Primary weeding all MZs (Monthly)																								



Person	Activity	Specific Action	li	Year 1 Year			ar 2 Year 3			Year 4				Ye	ar 5		BSA Ongoing till Year 20			till						
Responsible				Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
		Maintenance Weeding - Frequency to be adjusted according to monitoring findings																								
Project Ecologist	Monitorin g	Set up Monitoring Plots and collect baseline data																								
		Annual monitoring																								
		Monitoring (Every 5 years after Year 5)																								
		Reporting (to be submitted to the department								I																
		Nest box monitoring																								



## 5.8 VMP Audit and Review

If Landcom or its contractors intend to conduct any activities that deviate from this approved management plan then as per Condition 9 of the Commonwealth approval, they must submit a revised plan to the Department for the Minister's written approval. The revised plan must be approved by the Minister before the proposed varied activity can begin, unless it can be demonstrated that the revised plan will achieve an equal or better environmental outcome in the long term.

In addition, if monitoring reveals that performance standards are not being achieved, Landcom, as the approval holder, must take corrective actions to ensure compliance with these standards. Any change from these criteria would be considered a major deviation from the Minister's approval of the plan, potentially necessitating a revision of the approval process.



# 6.0 Trigger Action Response Plan

Section 6 applies to all Stages and management within the BSA Lands which also includes the VMP lands as reiterated above. As the BSSAR is an approved legal document with an understanding that this VMP works in conjunction with that management plan as indicated in **Appendix D** which is supported by the Total Fund Deposit (TFD) amount of \$2,476,402 which is approved and is the estimated costs of the management actions over the initial 20 years, plus recurring costs in perpetuity, refer **Appendix C**.

Following on from the monitoring program in Sections 4.9, 5.5 and Figure 6A, **Table 9** also includes trigger values or conditions under which corrective actions are taken. Monitoring records are incorporated into the reporting requirements as mentioned.

With all regeneration plans, objectives and targets are set based on good conditions, however, this may not always be the case. **Table 9** has been prepared to ensure any issues or threats that may arise, the Project Ecologist and BRC can step through actions to ensure targets can be achieved. The level of incident or threat will determine the action and response required. It is worth noting that not all incident or threats have multiple response levels, for example a catastrophic bushfire within the BSA lands will require the emergency works and the preparation of an amended management plan to be developed in response.

Table 9 - TARP

Element	Trigger	Action	Response
	Bushfire or Dwelling	Assess BSA lands for	No Impact - No response required;
	fire within surrounding	spot fires from embers	2. If areas below 500m <sup>2</sup> are impacted monthly monitoring to ensure native vegetation regrowth;
	landscape		3. If areas above 500m <sup>2</sup> are impacted new Plan for impacted area is to be prepared to include
			plantings and additional monitoring. The Plan is to be approved by Council Ecologist.
	Bushfire within BSA	The level of impact	No Impact - No response required;
	Lands	must be assessed	2. If areas below 500m <sup>2</sup> are impacted, Monthly monitoring of the following to ensure targets can
Eiro		when it is safe to enter	be achieved and weed and pest species are suppressed:
Fire		into the BSA lands:	a. All injured animals are to be taken to vet / wildlife carer immediately;
		<ul> <li>Assess for</li> </ul>	<ul> <li>b. Assessing flora species regenerating (record species, health and growth levels);</li> </ul>
		fauna loss and	c. Replace damaged nest boxes and / or ground habitat;
		injured	d. Monitoring erosion of bare soil, mulch may be required to stabilise the site;
		animals;	e. Monitoring water quality parameters with a focus on pH and turbidity to ensure
		<ul> <li>Canopy</li> </ul>	stabilising after 6 months.
		damage;	



Element	Trigger	Action	Response
		Shrub damage; Groundcover damage; Ground habitat damage; Damage to any nest boxes; Area of exposed soils; and Water quality parameters.	3. If areas above 500m² and less than 1ha are impacted a new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be approved by Council Ecologist.  a. All injured animals are to be taken to vet / wildlife carer immediately;  b. Area to be mulch and fenced;  c. Weed and pest management is be undertaken weekly;  d. Prepare planting schedule and mulching schedule for approval of Council Ecologist;  e. Assessing naturally regeneration native flora species regenerating (record species, health and growth levels);  f. Replace damaged nest boxes and / or ground habitat;  g. Installation of sediment and erosion controls to stabiles the site and reduce water quality impacts;  h. Monitoring water quality parameters with a focus on pH and turbidity to ensure stabilising after 6 – 12 months.  4. If areas are above 1ha are impacted new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be approved by Council Ecologist.  a. All injured animals are to be taken to vet / wildlife carer immediately;  b. Preparation of a new BSA for impacted area which should include but are not limited to:  i. Assessment of structural stability of dead canopy trees that may cause a threat to people, assets and unimpacted BSA lands;  ii. Preparation of a new planting schedule and mulching schedule for approval of Council Ecologist;  iii. Installation plan for nest boxes and ground habitat;  iv. Mulching and watering;  v. Development of new targets, timeframes monitoring and reporting.  c. Revised BSA to be approved by Council's Ecologist.  d. Interim measures to stabilise the BSA Lands while above is being prepared Assessing naturally regeneration native flora species regenerating (record species, health and growth levels);  i. Fencing:  ii. Mulching and watering;  iii. Weed and pest management; and  iv. Installation of sediment and erosion controls.
Flood	Less than a 1 in 50	Assess BSA lands for	No Impact - No response required.
	year event	signs of damage and	



Element	Trigger	Action	Response
		record level of impact	2. If areas below 500m <sup>2</sup> are impacted monthly monitoring to ensure native vegetation regrowth and
		for the following:	removal of rubbish or blockages.
		<ul> <li>Assess for</li> </ul>	3. If areas above 500m <sup>2</sup> are impacted new Plan for impacted area is to be prepared to include
		fauna loss and	plantings and additional monitoring. The Plan is to be approved by Council Ecologist.
		injured	
		animals.	
		<ul> <li>Canopy</li> </ul>	
		damage:	
		<ul> <li>Shrub</li> </ul>	
		damage;	
		<ul> <li>Groundcover</li> </ul>	
		damage;	
		Ground	
		habitat	
		damage;	
		<ul> <li>Loss of</li> </ul>	
		plantings;	
		<ul> <li>Damage to</li> </ul>	
		any nest	
		boxes;	
		<ul> <li>Area of</li> </ul>	
		exposed soils;	
		<ul> <li>Rubbish;</li> </ul>	
		<ul> <li>Blockages in</li> </ul>	
		water course;	
		and	
		<ul> <li>Water quality</li> </ul>	
		parameters.	
	1 in 50 year event or	Assess BSA lands for	No Impact - No response required
	greater	signs of damage and	2. If areas below 500m <sup>2</sup> are impacted, Monthly monitoring of the following to ensure targets can
		record level of impact	be achieved and weed and pest species are suppressed:
		for the following:	<ul> <li>All injured animals are to be taken to vet / wildlife carer immediately;</li> </ul>
		<ul> <li>Assess for</li> </ul>	b. Assessing flora species regenerating (record species, health and growth levels);
		fauna loss and	c. Replace damaged nest boxes and / or ground habitat;



Element	Trigger	Action	Response
		injured animals.  Canopy damage: Shrub damage; Groundcover damage; Ground habitat damage; Loss of plantings; Damage to any nest boxes; Area of exposed soils; Rubbish; Blockages in water course; and Water quality parameters.	<ul> <li>d. Remove blockages;</li> <li>e. Monitoring erosion of bare soil, mulch may be required to stabilise the site;</li> <li>f. Monitoring water quality parameters with a focus on pH and turbidity to ensure stabilising after 6 months.</li> <li>3. If areas above 500m² and less than 1ha are impacted new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be approved by Council Ecologist. <ul> <li>a. All injured animals are to be taken to vet / wildlife carer immediately;</li> <li>b. Area to be mulch and fenced;</li> <li>c. Weed and pest management is be undertaken weekly;</li> <li>d. Prepare planting schedule and mulching schedule for approval of Council Ecologist;</li> <li>e. Assessing naturally regeneration native flora species regenerating (record species, health and growth levels);</li> <li>f. Replace damaged nest boxes and / or ground habitat;</li> <li>g. Remove blockages;</li> <li>h. Installation of sediment and erosion controls to stabiles the site and reduce water quality impacts; and</li> <li>i. Monitoring water quality parameters with a focus on pH and turbidity to ensure stabilising after 6 – 12 months.</li> </ul> </li> <li>4. If areas are above 1ha are impacted new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be review by Council Ecologist.</li> <ul> <li>a. All injured animals are to be taken to vet / wildlife carer immediately;</li> <li>b. Preparation of a new BSA for impacted area which should include but are not limited to:  <ul> <li>i. Assessment of structural stability of dead canopy trees that may cause a threat to people, assets and unimpacted BSA lands;</li> <li>ii. Preparation of a new planting schedule and mulching schedule for approval of Council Ecologist;</li> <li>iii. Installation plan for nest boxes and ground habitat;</li> <li>iv. Mulching and watering;</li> <li>v. Development of new targets, timeframes monitoring and reporting.</li> <li>c. Revised BSA to be approved by Co</li></ul></li></ul></ul>



Element	Trigger	Action	Response
Drought	A reduction in annual rainfall of 25% - 50%  A reduction in annual rainfall of 50% or greater.	Assess BSA lands for flora health:  Reduction in growth: Death: Reduction in flowering material.  Assess BSA lands for signs of damage and record level of impact for the following: Assess for fauna loss and injured animals. Canopy damage: Shrub damage; Groundcover damage; Loss of plantings; Area of exposed soils; and	iii. Weed and pest management; and iv. Installation of sediment and erosion controls.  1. No Impact - No response required. 2. If areas below 500m² are impacted preparation of a watering plan and monthly monitoring to ensure native vegetation regrowth and improvement n survival rates for 12 6 months no improvement move to level 3 response. 3. If areas above 500m² are impacted new Plan for impacted area is to be prepared to include watering schedule, plantings and additional monitoring. The Plan is to be approved by Council Ecologist.  1. No Impact - No response required 2. If areas below 500m² are impacted, Monthly monitoring of the following to ensure targets can be achieved and weed and pest species are suppressed: a. All injured animals are to be taken to vet / wildlife carer immediately; b. Preparation and implementation of a watering schedule; c. Assessing flora species regenerating (record species, health and growth levels); d. Mulching and monitoring erosion of bare soil, mulch may be required to stabilise the site; e. Monitoring water quality parameters with a focus on pH and turbidity to ensure stabilising after 6 months.  3. If areas above 500m² and less than 1ha are impacted new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be approved by Council Ecologist. a. All injured animals are to be taken to vet / wildlife carer immediately; b. Preparation and implementation of a watering schedule c. Weed and pest management is be undertaken weekly; d. Prepare planting schedule and mulching schedule for approval of Council Ecologist; e. Assessing naturally regeneration native flora species regenerating (record species, health and growth levels); f. Installation of sediment and erosion controls to stabiles the site and reduce water quality
		and ● Water quality parameters.	<ul> <li>f. Installation of sediment and erosion controls to stabiles the site and reduce water quality impacts.</li> <li>g. Monitoring water quality parameters with a focus on pH and turbidity to ensure stabilising after 6 – 12 months.</li> <li>4. If areas are above 1ha are impacted new Plan for impacted area is to be prepared to include plantings and additional monitoring. The Plan is to be review by Council Ecologist.</li> </ul>



Element	Trigger	Action	Response				
			a. All injured animals are to be taken to vet / wildlife carer immediately;				
			b. Preparation and implementation of a watering schedule.				
			c. Preparation of a new BSA for impacted area which should include but are not limited to:  i. Assessment of structural stability of dead canopy trees that may cause a threat to people, assets and unimpacted BSA lands;  ii. Preparation of a new planting schedule and mulching schedule for approval of Council Ecologist;  iii. Mulching;  iv. Development of new targets, timeframes monitoring and reporting.  d. Revised BSA to be approved by Council's Ecologist.				
			<ul> <li>Interim measures to stabilise the BSA Lands while above is being prepared Assessing naturally regeneration native flora species regenerating (record species, health and growth levels);</li> </ul>				
			i. Mulching and watering;				
			ii. Weed and pest management; and				
			iii. Installation of sediment and erosion controls.				
	Infestation of Weeds	Area of impact less	1. Assess BSA lands for flora health and implement controls outlined in the Baseline Report the				
	Species Recorded at	than 1,000m <sup>2</sup>	species within one to two growth seasons from the effective Area.				
	Baseline.		2. If weeds species are still persistent after two growth seasons a revised weed management				
			plan must be prepared and approved by Councils Ecologist.				
Weeds		Area of impact greater than 1,000m²	Project Ecologist and BRC meet on site to determine action plan.     Prepare step 1 of eradication plan;				
		,	<ul> <li>Email Council Ecologist to inform them of the infestation and step one of the control methods.</li> </ul>				
			c. Implement step one.				
			<ol><li>Preparation of new weed management plan for the species. The plan must be approved by Council Ecologist.</li></ol>				



Element	Trigger	Action	Response
	Infestation of Weeds Species not recorded at Baseline.	Assess area of infestation	Project Ecologist and BRC meet on site to determine action plan.     a. Prepare step 1 of eradication plan;     b. Email Council Ecologist to inform them of the infestation and step one of the control methods.     c. Implement step one.  Preparation of new weed management plan for the species. The plan must be approved by Council Ecologist.
	Infestation of Pathogen Species Recorded at Baseline.	Area of impact less than 1,000m <sup>2</sup> Area of impact greater than 1,000m <sup>2</sup>	Assess BSA lands for flora health and implement controls outlined in the Baseline Report the species within one to two growth seasons from the effective Area.      If weeds species are still persistent after two growth seasons a revised weed management plan must be prepared and approved by Councils Ecologist.      Project Ecologist and BRC meet on site to determine action plan.     a. Prepare step 1 of eradication plan;
Pathogen			b. Email Council Ecologist to inform them of the infestation and step one of the control methods.  c. Implement step one.  2. Preparation of new pathogen management plan for the species. The plan must be approved by Council Ecologist.
	Infestation of pathogen Species not recorded at Baseline.	Assess area of infestation	Project Ecologist and BRC meet on site to determine action plan.     a. Prepare step 1 of eradication plan;     b. Email Council Ecologist to inform them of the infestation and step one of the control methods.     c. Implement step one.  Preparation of new pathogen management plan for the species. The plan must be approved by Council Ecologist.
Pest Species	Increase records or evidence of Pest	Area of impact less than 1,000m²	Assess BSA lands for flora health and fauna health and implement controls outlined in the     Baseline Report the species within one seasons from the effective Area.



Element	Trigger	Action	Response
	Species Recorded at Baseline.		<ol> <li>If pest species are still persistent after one seasons a revised Pest management plan must be prepared and approved by Councils Ecologist.</li> </ol>
		Area of impact greater than 1,000m <sup>2</sup>	Project Ecologist and BRC meet on site to determine action plan.     a. Prepare step 1 of eradication plan;     b. Email Council Ecologist to inform them of the outbreak and step one of the control methods.     c. Implement step one.  Preparation of new pest management plan for the species. The plan must be approved by Council Ecologist.
	Increase records or evidence of Pest Species not Recorded at Baseline.	Assess area of infestation	Project Ecologist and BRC meet on site to determine action plan.     a. Prepare step 1 of eradication plan;     b. Email Council Ecologist to inform them of the infestation and step one of the control methods.     c. Implement step one.  Preparation of new pest management plan for the species. The plan must be approved by Council Ecologist.
Reduction in Native Fauna	Monitoring results show a decline in fauna species diversity previously recorded.	Not recorded for one monitoring round from previous (noting this may be seasonal).	<ol> <li>Project Ecologist monitoring for two monitoring rounds</li> <li>If the species is not observed / heard etc after three rounds of monitoring the following is to be implement:         <ul> <li>Increase is monitoring technique outline in Baseline Report such as 10 camera traps for 14 days, leave traps for 20 days, survey in a different season, etc</li> <li>Assess health and condition of habitat and foraging requirements;</li> <li>Assess predator population and numbers of recordings;</li> <li>Preparation of revised management strategies es such as installation of more nest boxes or ground habitat, for instance if the species reduction is a reptile installation of rocks in open canopy or improvements of fencing to reduce pest species are all considerations to encourage species to utilise the BSA Lands.</li> </ul> </li> <li>Preparation of new Species management plan for approval by Council Ecologist.</li> </ol>
Vehicle Strike	More than three fatal wildlife injuries observed in sixmonth period	Community Management Boars to record all wildlife injuries / fatalities recorded and reviewed to determine appropriate measures.	<ol> <li>Community Board is to encourage and increase knowledge within the community through social media, notifications and letter drops.</li> <li>If no reduction in incidents in twelve months from the Project Ecologist and Community board are to prepare a revised management plan incorporating more physical measures such as reduced speed limits, traffic slowing measures. The revised plans must be approved by Council's Ecologist and Planners.</li> </ol>



Element	Trigger	Action	Response	
Vandalism / Theft	BRC or Community Board or Resident or Project Ecologist identify vandalism or theft with the BSA Lands	All incidents must be reported to the Project Ecologist and Community Board.	2. N 3. I	Community Board is to encourage and increase knowledge within the community through social media, notifications and letter drops.  Vandalism such as cut fences, tracks, damage to vegetation or theft of plantings must be rectified within one month of incident.  If no reported incidents twelve months from the Project Ecologist and Community board are to prepare a revised management plan incorporating more physical measures such fencing to reduce access or increase in signage. The revised plans must be approved by Council's Ecologist
Growth Rate of Plantings (noting growth rates associated with flood, fire, drought as assessed above and not included in this element)	Reduced Growth of planted species over a twelve month period prior to reaching Level 5 of the targets.	Monitoring, assessment and Reporting	1. /	After twelve months of monitoring if growth rates increase - No response required if growth rates do not increase after 12 months of monitoring the following must be undertaken:  a. A specialist Arborist and / or Horticulturalist and / or Species Expert must be engaged to assess the species.  b. Preparation of the expert report, including recommendation to improve health and growth to implemented and reporting to be provided to Council for review.



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Appendix A – Weed Species Found within the BSA Lands



#### Weed Species present within the BSA Lands

	es present with	High		
Common name of Weed	Scientific name of Weed	Threat Weed Species (Y/N)	Description of infestation (e.g. intensity [% Projected Foliage Cover (PFC)] & location within zone)	Management Zone/s
Lantana	Lantana camara	Y	Low to high density infestations occur throughout all management zones. Highest densities occur within Zone 1 and 3 predominantly within wet sclerophyll/gullies, requiring significant primary control. Higher slopes grading to dry sclerophyll contain low to negligible infestations.  PFC 5-75%	High in Zone 2 and 4. Present in all zones.
Camphor Laurel	Cinnamomum camphora	Y	Low to high density infestations occur throughout the majority of management zones. Highest densities (mature individuals) occur within Zone 1 and 3, predominantly within wet sclerophyll/gullies, requiring significant primary control. Higher slopes grading to dry sclerophyll contain low to negligible infestations.  PFC 1-15%	All
Panic Veldtgrass	Ehrharta erecta	Y	Scattered occurrences at low densities, predominantly within Zone 1 and 2. Target during maintenance works.  PFC 0-3%	1, 2
Asparagus Fern	Asparagus aethiopicus	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1, 3
Small- leaved Privet	Ligustrum sinense	Y	High density in Zone 1, will require primary weeding. Target during maintenance works.  PFC 0-40%	1
Large- leaved Privet	Ligustrum Iucidum	Y	High density in Zone 1, will require primary weeding.  Scattered occurrences at low densities throughout Zone 2. Target during maintenance works.  PFC 0-25%	1, 2
Ochna	Ochna serrulata	Y	High density in Zone 1, will require primary weeding.  Scattered occurrences at low densities throughout Zone 2. Target during maintenance works.  PFC 0-10%	1, 2
Flatweed	Hypochaeris radicata		Scattered occurrences at low densities. Target during maintenance works.	1, 2



Common name of Weed	Scientific name of Weed	High Threat Weed Species (Y/N)	Description of infestation (e.g. intensity [% Projected Foliage Cover (PFC)] & location within zone)	Management Zone/s
			PFC 0-1%	
Japanese Sacred Bamboo	Nandina domestica		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1, 2
Common Passionfrui t	Passiflora edulis		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	2
Wild Tobacco	Solanum mauritianum		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
Black Nightshade	Solanum nigrum		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
Buffalo Grass	Stenotaphrum secundatum	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
Bird of Paradise	Strelitzia juncea		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1
Cocos Palm	Syagrus romanzoffiana		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
Trad	Tradescantia fluminensis	Y	High density occurrence in Zone 1. Primary weeding will be required. PFC 0-30%	All
Crofton Weed	Ageratina adenophora	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	1, 3
Indian Hawthorn	Raphiolepis indica		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
Blackberry	Rubus fruticosus	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All



Common name of Weed	Scientific name of Weed	High Threat Weed Species (Y/N)	Description of infestation (e.g. intensity [% Projected Foliage Cover (PFC)] & location within zone)	Management Zone/s
Cat's Claw Creeper	Dolichandra unguis-cati	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
Whisky Grass	Andropogon virginicus	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
Fishbone fern	Nephrolepis cordifolia		High localised density in Zone 1. Primary weeding will be required. PFC 0-60%	1
All Low abundance or sporadic individual weeds.	N/A	N/A	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All



**Appendix B – Supplementary Planting Schedule** 



#### Targeted Supplementary Planting Schedule at the Biodiversity Stewardship Site

Common name	Scientific name	Management Zone/s	Number of plants per area	Planting method	Timing (months or Year)
Red Bloodwood	Corymbia gummifera	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Smooth- barked Apple	Angophora costata	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Sydney Peppermint	Eucalyptus piperita	6	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Brown Stringybark	Eucalyptus capitellata	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Broad- leaved Scribbly Gum	Eucalyptus haemastoma	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Black She- oak	Allocasuarina littoralis	7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.



Common name	Scientific name	Management Zone/s	Number of plants per area	Planting method	Timing (months or Year)
Turpentine	Syncarpia glomulifera	6	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Old-man Banksia	Banksia serrata	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Tantoon	Leptospermum polygalifolium	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Slender Tea-tree	Leptospermum trinervium	7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Red- stemmed Wattle	Acacia myrtifolia	7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Mountain Devil	Lambertia formosa	7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Slender Rice Flower	Pimelea linifolia	7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Christmas Bush	Ceratopetalum gummiferum	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.



Common name	Scientific name	Management Zone/s	Number of plants per area	Planting method	Timing (months or Year)
Broad- leaved Geebung	Persoonia levis	6, 7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Prickly Moses	Acacia ulicifolia	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Narrow- leaved Geebung	Persoonia linearis	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
White Wattle	Acacia linifolia	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Blue Flax- lily	Dianella caerulea	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Wiry Panic	Entolasia stricta	6, 7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Spiny- headed Mat-rush	Lomandra Iongifolia	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Variable Sword- sedge	Lepidosperma Iaterale	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Lomandra obliqua	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine



Common name	Scientific name	Management Zone/s	Number of plants per area	Planting method	Timing (months or Year)
					subsidence remediation.
N/A	Themeda australis	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Ptilothrix deusta	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Lepyrodia scariosa	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.



# Appendix C - TFD CST

#### Total Fund Deposit Calculator

Site	name	
Site I	location (Lot/DP or address)	

Add row for 'Management action Add row for 'Other recurring cost' Discount rate
3.20%

				Timing												Ye	ar										Decount value of	secont weter -	
Management plan section	TFD item#	Management action Item	Start year	End year	Frequency	Estimated annual cost (\$)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Present value of payments for first 20 yrs		Present value all payments
sturbance and structure		Installation of pedestrian bridge. Design, construct and install 6.0m long x 1.5m wide pedestrian bridge. Includes provision for handrail/ballastrades or kickboards.	1	1	1	40,000	40,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40,000	0	4
sturbance and		Installation of new pedestrian boardwalk (Design, construct and install 40m long x 1.5m	1	1	1	350,000	350,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350,000	0	35
astructure isturbance and		wide boardwalk)	1			1 100,000	100,000	0	0	0	0	0	-	-	0	0	0	0	0	0	0	0	0	0	0	0	100,000	0	10
astructure Disturbance and		Installation of gates at 19 entrance points						-	- 0			-		-		-	-		-		-	-	- 0	-		-		0	
rastructure		Installation of new permenent fencing (1,553m @ \$20/m)	1	1	1	1 31,060	31,060	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31,060	0	31
Disturbance and irastructure		Installation of BSA (x19) and Pet Ownership Signage (x19) @ \$42.00/sign	1	1	1	1,596	1,596	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,596	0	1
Disturbance and rastructure		Montoring of new and existing permanent fences	2	!	5	500	0	500	0	0	0	0	500	0	0	0	0	500	0	0	0	0	500	0	0	0	1,554	1,771	3
Disturbance and rastructure		Maintenance for new permanent fencing (100m per 5 year period @ \$20/m)	2		5	2,000	0	2,000	0	0	0	0	2,000	0	0	0	0	2,000	0	0	0	0	2,000	0	0	0	6,216	7,083	13
Disturbance and		Maintenance of exisiting fencing (100m per 5 year period @ \$20/m)	5			2,000	0	0	0	0	2,000	0	0	0	0	2,000	0	0	0	0	2,000	0	0	0	0	2,000	5,656	6,445	12
rastructure Disturbance and		BSA and pet ownership Sign Replacment (x18 per 5-year period)	-			756					756			-		756				0	756			-	0	756	2,138	2,436	
rastructure Disturbance and		Installation of temporary fencing on tracks to be regenerated (five strand plain wire, star	5	1	-		0	0	0	0	/50	0	- 0	- 0	- 0	736	0	0	0	- 0	730	0	0	- 0	0	/50		2,430	
rastructure		picket) (2427m @ \$20/m)	1	1	1	1 48,540	48,540	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48,540	0	48
Disturbance and rastructure		Installation of Brush matting on tracks to be regenerated	1	1	1	5,000	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0	5
Disturbance and rastructure		Installation of Track regeneration signs (x46 @ \$42.00/sign)	1	1	1	1,932	1,932	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,932	0	1
Disturbance and		Monitoring and Maintenance of temporary fences	2	20	1	1,000	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	14,073	0	14
rastructure Disturbance and		Track regeneration sign replacement (x20 per 5-year period)	5	20		5 840	0	0	0	0	840	0	0	0	0	840	0	0	0	0	840	0	0	0	0	840	2,375	0	2
rastructure Disturbance and							-	-	-	-		-	-		-		-	-	-	-	-	-	-	-	-	-			
rastructure		Removal of fencing on regenerated tracks	5	20	1	1,000	0	0	0	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	11,256	0	11
Weed management and ntrol		Section 6 - Integrated Weed Management Plan - Primary Treatment All Zones	1	1	1	1 15,000	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,000	0	15
Weed management and ntrol		Section 6 - Integrated Weed Management Plan - Primary follow up Treatment All Zones	2	2	1	1 12,000	0	12,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11,628	0	11
Weed management and		Section 6 - Integrated Weed Management Plan on going (bi-annually) weed	3		1	5,000	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	65,522	85,883	151
ntrol Pest animal controls		management All Zones Baseline monitoring for pest control (30x motion sensor camera deployemnt for 2 week	1	1	1	5,000	5,000	0	0	0	0	0	0	n	0	0	n	0	0	0	0	n	0	0	0	0	5,000	0	5
		period) Pest Species Fauna Mointoring (includes camera trap, trapping for cats if required, and				-,	0,000	6.000	0.000	6 000	6.000	6.000	6.000	6.000	6.000	6.000	0000	6 000	6.000	6.000	6 000	0.000	6.000	6.000	6.000	0.000	84.441	402.050	187
Pest animal controls		baiting)	2		1	6,000		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000		103,059	
PCTs and TECs		Planting of mine subsidence areas and access tracks, including tree guard installation, watering for first 12 months and mulch	1	1	1	35,000	35,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35,000	0	35
PCTs and TECs		Monitoring and maintence of plantings in mine subsidence areas (includes replacement tree quards and species which are dead)	1	5	1	2,000	2,000	2,000	2,000	2,000	2,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,399	0	9
Weed management and ntrol		Active Restoration Zones - Primary weeding monthly, 12-months after initial planting	1	1	1	1 12,000	12,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,000	0	12
Weed management and		Active Restoration Zones - Weeding to occur every 3 months for the 1–5-year period	2		1	5,000	0	5,000	5,000	5,000	5,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,497	0	18
ntrol Fhreatened species		post initial planting				16,000	16.000					-	-	-	-					-				-			16.000		16
bitat Fhreatened species		Installation of 64 nest boxes by climbing ecologists	'			-,	10,000	0	- 0	0	- 0	0	- 0	- 0	- 0	- 0	0	- 0	0	- 0	- 0	0	0	- 0	- 0	- 0		0	
bitat		Monitoring and Maintenance of nest boxes annually	2	!	1	2,500	0	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	35,184	42,941	78
Monitoring and adaptive anagement		PCT Baseline Data Collection and establishment of monitoring points	1	1	1	12,000	12,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,000	0	12
Monitoring and adaptive anagement		Annual data collection at photo monitoring points	1		1	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	30,147	34,353	64,
Monitoring and adaptive		EMM VI plots and monitoring and reporting yrs 1-19	1	19		17,000	17,000	0	0	0	0	17,000	0	0	0	0	17,000	0	0	0	0	17,000	0	0	0	0	54,528	0	54,
anagement Monitoring and adaptive			20	20		7,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,000		0	
anagement  Monitoring and adaptive		EMM VI plots and monitoring year 20 top up	20		'		0	0	- 0	0	0	0	- 0	- 0	- 0	0	0	- 0	0	- 0	0	- 0	0	0					
anagement		EMM VI plots and monitoring ongoing	20	1	5	10,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,000	5,496	32,224	37,
Monitoring and adaptive anagement		Weed Management Plan monitoring	1		1	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	21,103	24,047	45,
Monitoring and adaptive anagement		Threatened flora species (TJ) monitoring	1		1	1 4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	67,831	77,294	145,
Monitoring and adaptive		Threatened fauna (Powerful Owl and Squirrel Glider) monitoring including nocuturals,	1		1	1 10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	150,735	171,765	322,
anagement Disturbance and		playcall back, installation of camera traps	- 1	ļ .		50,000	50,000	0		0	-	0			-	0	0	0	0	-		0			0		50,000	0	50,
rastructure Monitoring and adaptive		Installation of Bollards at 19 points (8x 90mm bollard at each gate)	'				50,000	0	0	0	- 0	0	- 0	- 0	- 0	- 0	0	0	0	- 0	0	0	0	- 0	0	0		0	
anagement		Monitoring of Gates	2	!		500	0	500	0	0	0	0	500	0	0	0	0	500	0	0	0	0	500	0	0	0	1,554	1,771	3,
Monitoring and adaptive anagement		Monitoring of Bridges	5		5	500	0	0	0	0	500	0	0	0	0	500	0	0	0	0	500	0	0	0	0	500	1,414	1,611	3,
Monitoring and adaptive anagement		Monitoring of tracks (Biannually)	1		1	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	7,537	8,588	16,
Monitoring and adaptive		Monitoring of signage	2		3	500	0	500	0	0	500	0	0	500	0	0	500	0	0	500	0	0	500	0	0	500	2,600	2,773	5,
anagement Monitoring and adaptive		Maintenance of Gates	2			3,000	0	3,000		0	0	0	3,000	0		0	0	3,000	0	0	0	0	3,000	0	0	0	9,324	10,625	
anagement Monitoring and adaptive					<u> </u>			3,000		0			3,000	- 0	-		- 0	3,000	-	-	-	- 0	3,000	-	-				
anagement		Maintenance of Bridges	5		10	3,000	0	0	0	0	3,000	0	0	0	0	0	0	0	0	0	3,000	0	0	0	0	0	4,575	5,213	
Monitoring and adaptive anagement		Maintenance of tracks (x20m/year)	2	2	1	1,000	0	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	14,073	17,177	31
Monitoring and adaptive anagement		Maintenance of signage (x5 @\$42.00/sign)	2		3	3 210	0	210	0	0	210	0	0	210	0	0	210	0	0	210	0	0	210	0	0	210	1,092	1,165	2
Monitoring and adaptive		Pest species monitoring baseline data review (6hrs)	1	1	1	1,500	1,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,500	0	1,
Monitoring and adaptive		Contingency	5		1	5,000	0	0	n	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	56,278	85,883	142.
anagement		Continguity	5				9	3	٥		5,000	0,000	0,000	3,000	3,000	3,000	3,000	3,000	3,000	5,000	0,000	3,000	5,000	3,000	5,000	3,000	30,210	00,003	142
Management plan section	TFD item#	Other recurring management items and costs				Estimated annual cost (\$)					,									,									
		Annual reporting fee (2023/24 financial year)	1		1	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	1,785	26,906	30,660	57,
Monitoring and adaptive anagement		Compliance mapping and reporting	1		1	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	5,600	84,411	96,189	180
Monitoring and adaptive		Insurance	1		1	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	22,610	25,765	48
anagement Monitoring and adaptive		5 yearly management plan review	5				0	0	0	0	5.000	0	0	0	0	5.000	0	0	0	0	5,000	0	0	0	0	5,000	14.139	16,112	
anagement  Monitoring and adaptive			-	1							.,	0	-			-,	-	-			_	-			-				
anagement		Variation fee	5	1	5	1,785	0	0	0	0	1,785	0	0	0	0	1,785	0	0	0	0	1,785	0	0	0	0	1,785		5,752	10
							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
							-	J	0	U	U	U	U	0	U	J	J	J	-	U	-	0	U	U	-	U		-	
				Site	management	cost in today's value	770,913	63,495	49,785	49,785	70,376	65,785	54,785	49,495	48,785	59,666	66,495	54,785	48,785	49,495	62,666	65,785	55,495	48,785	48,785	77,376			Total Trust Fu Deposit
				Present Valu	e (PV) of the s	ite management cost	770,913	61,526	46,745	45,296	62,045	56,199	45,351	39,701	37,918	44,938	48,528	38,742	33,430	32,864	40,320	41,014	33,526	28,558	27 673	42,530	1,577,816	898,586	2,476,
1																													

		Year												Present value of payments during	Present value of payments after 20	Present value of							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	first 20 yrs	yrs	all payments
Annual site management costs in today's values	\$770,913	\$63,495	\$49,785	\$49,785	\$70,376	\$65,785	\$54,785	\$49,495	\$48,785	\$59,666	\$66,495	\$54,785	\$48,785	\$49,495	\$62,666	\$65,785	\$55,495	\$48,785	\$48,785	\$77,376	\$1,577,816	\$898,586	\$2,476,402
Annual reporting fee	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$1,785	\$26,906	\$30,660	\$57,566
Total amount payable to landowner (excluding GST)	\$769,128	\$61,710	\$48,000	\$48,000	\$68,591	\$64,000	\$53,000	\$47,710	\$47,000	\$57,881	\$64,710	\$53,000	\$47,000	\$47,710	\$60,881	\$64,000	\$53,710	\$47,000	\$47,000	\$75,591	\$1,550,910	\$867,926	\$2,418,835
GST payable to landowner	\$76,913	\$6,171	\$4,800	\$4,800	\$6,859	\$6,400	\$5,300	\$4,771	\$4,700	\$5,788	\$6,471	\$5,300	\$4,700	\$4,771	\$6,088	\$6,400	\$5,371	\$4,700	\$4,700	\$7,559	\$155,091	\$86,793	\$241,884
Total amount payable to landowner (including GST)	\$846,041	\$67,881	\$52,800	\$52,800	\$75,450	\$70,400	\$58,300	\$52,481	\$51,700	\$63,669	\$71,181	\$58,300	\$51,700	\$52,481	\$66,969	\$70,400	\$59,081	\$51,700	\$51,700	\$83,150	\$1,706,001	\$954,718	\$2,660,719



Appendix D - BSSAR Management Plan CST

### Attachment 4: Management Plan

# Instructions for completing the Biodiversity Stewardship Site Management Plan template

This Biodiversity Stewardship Site Management Plan template is to be filled in by the assessor, reviewed by the Owner and included in the Biodiversity Stewardship Site Assessment Report submitted to the BCT as part of an application to establish a Biodiversity Stewardship Site. The standard words and format provided in this template must be used for the management actions.

The BCT will review the management plan and make any necessary amendments in consultation with the Owner. The management plan will be incorporated into the Biodiversity Stewardship Agreement.

There are seven sections to this template:

- Section 1: Management Actions
- Section 2: Fire for Conservation Management Plan
- Section 3: Native Vegetation Management Plan
- Section 4: Threatened Species Habitat Management Plan
- Section 5: Integrated Feral Pest Management Plan
- Section 6: Integrated Weed Management Plan
- Section 7: Monitoring Plan

Orange boxes like this one provide instructions and examples and will be deleted by the BCT before the Biodiversity Stewardship Agreement is processed.

Yellow highlighted fields need to be customised by the Owner. Usually the Owner needs to provide the information required; sometimes the Owner will need to delete or retain provided options. It is important to ensure that, especially where fields are customised, that the management actions are certain, clear and specific so that it is clear what the requirements of the actions are.

The format and wording of standard and additional management actions must not be changed. Enter site specific information into the yellow highlighted fields as required.

Management actions are divided into 'required management actions' and 'active restoration management actions' in accordance with Subsections 13.3.2 and 13.3.3 of the BAM. Required management actions are those management actions that must be implemented on the biodiversity stewardship site to achieve the predicted management gain. Active restoration management actions are those management actions in addition to the required management actions that may be used to create biodiversity credits at a biodiversity stewardship site in addition to the biodiversity credits created for the required management actions.

Both required management actions and active restoration management actions, when included in this management plan for a biodiversity stewardship site, must be undertaken in accordance with the management plan.

#### **Definitions**

In this Management Plan, unless a contrary intention appears, a capitalised word or words has the meaning given in the corresponding row in the table below.

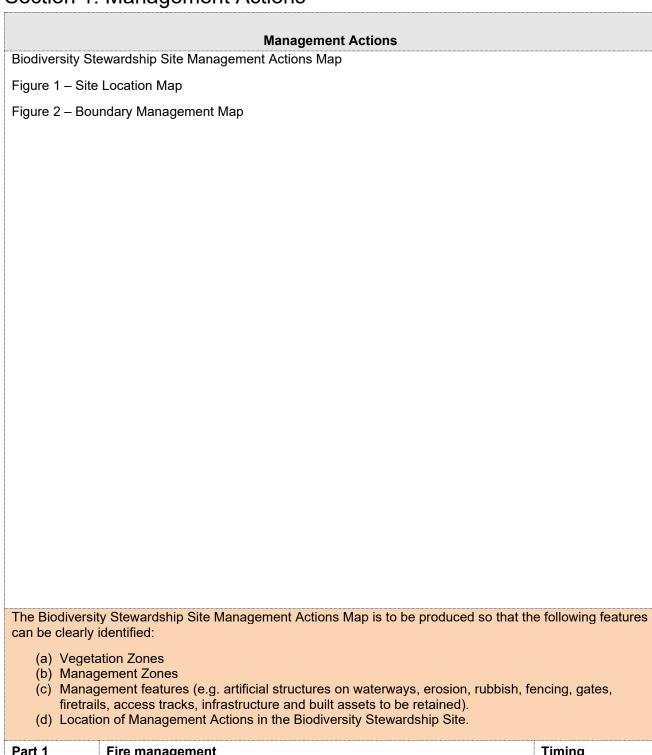
Other terms are defined in the Dictionary.

Word/s	Meaning
Biodiversity Stewardship Site Assessment Report	The document described in Error! Reference source not found.
Biodiversity Stewardship Site Management Actions Map	The map showing Management Zones, management features (e.g. firetrails) and the location of Management Actions in the Biodiversity Stewardship Site
Ecological Burn	Burning of Native Vegetation undertaken to help stimulate Native Plant regeneration, control weeds and enhance Biodiversity
Ecological Burn Map	The map included in the Fire for Conservation Management Plan identifying the areas of the Biodiversity Stewardship Site to be burnt, based on broad habitat zones, during each Ecological Burn
Ecological Burn Unit	An area within the Biodiversity Stewardship Site comprised of one or more Management Zones over which the same regime of ecological burning is applied
Ecosystem Credit	The meaning given in the Biodiversity Assessment Method  Note: This definition may change from time to time, with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was:  "a measurement of the value of threatened ecological communities, threatened species habitat for species that can be reliably predicted to occur within a PCT, and PCTs generally. Ecosystem credits measure the loss in biodiversity values at a development site and the gain in biodiversity values at a biodiversity stewardship site"
Feral Pest	Pest animal species not native to Australia including fox, cat, pig, goat, horse, avian pests and other miscellaneous species
Fertiliser	The meaning given in the <i>Biosecurity Act 2015</i> (NSW)  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "(a) a substance that consists of or contains nitrogen, phosphorus or potassium (or any combination of nitrogen, phosphorus or potassium) and is manufactured, represented, sold or used as a means for directly or indirectly supplying nutriment for the purpose of enhancing the development, productivity, quality or reproductive capacity of vegetation, other than a substance excluded from this definition by the regulations, or  (b) any other substance prescribed by the regulations to be a fertiliser"
Fire for Conservation Management Plan	The plan titled "Fire for Conservation Management Plan" included in Section 2 of this Management Plan
High Threat Exotic Plant Cover	The meaning given to it in the Biodiversity Assessment Method  Note: The definition may change from time to time, with changes in the Biodiversity Assessment Method, but on the Agreement Date this meaning was "plant cover composed of vascular plants not native to Australia that if not controlled will invade and outcompete native plant species"

Word/s	Meaning
High Threat Exotic Species	A vascular plant not native to Australia that if not controlled will invade and outcompete Native Plant species. Also referred to in this Attachment as High Threat Weed Species
Hollow- dependent Threatened Species	Threatened Species for which tree hollows (sometimes of a particular size or with particular characteristics) are a key component of their habitat and are critical for the persistence of that species in the landscape
Integrated Feral Pest Management Plan	The plan titled "Integrated Feral Pest Management Plan" included in Section 5 of this Management Plan
Integrated Weed Management Plan	The plan titled "Integrated Weed Management Plan" included in Section 6 of this Management Plan
Large Woody Debris	Large, fallen dead tree branches and trunks
Living Ground Cover	All living vegetation below 1m in height including native and non-native ground cover species
Local Land Services	The statutory corporation established under the <i>Local Land Services Act 2013</i> (NSW).
Monitoring Plan	The plan titled "Monitoring Plan" included in Section 7 of this Management Plan
Native Vegetation Management Plan	The plan titled "Native Vegetation Management Plan" included in Section 3 of this Management Plan
Other Weed Species	A plant not native to Australia and not otherwise identified as a High Threat Weed Species
PCT	Plant Community Type
Pesticide	The meaning given in Section 5 of the <i>Pesticides Act 1999</i> (NSW)  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "(a) an agricultural chemical product (within the meaning of the Agvet Code), or (b) a veterinary chemical product (within the meaning of the Agvet Code) that: (i) is represented as being suitable for, or is manufactured, supplied or used for, the external control of ectoparasites of animals, and (ii) is concentrated and requires dilution or mixing in water before use, and (iii) is not prescribed under the <a href="Stock Medicines Act 1989">Stock Medicines Act 1989</a> as a low-risk veterinary chemical product. a pesticide continues to be regarded as a pesticide even when it is mixed with some other substance (whether or not the other substance is a pesticide). However, a pesticide does not include a prescribed mixture or a mixture of a prescribed class or description"
Photo Point	A location within the Biodiversity Stewardship Site and identified in Part 9.2 of Section 1 of this Management Plan at which a series of photographs is taken in all directions (360°) for the purpose of monitoring change in vegetation condition over time
Rubbish	Any anthropogenic waste material other than that identified in this Management Plan as being used to achieve a specific biodiversity management purpose

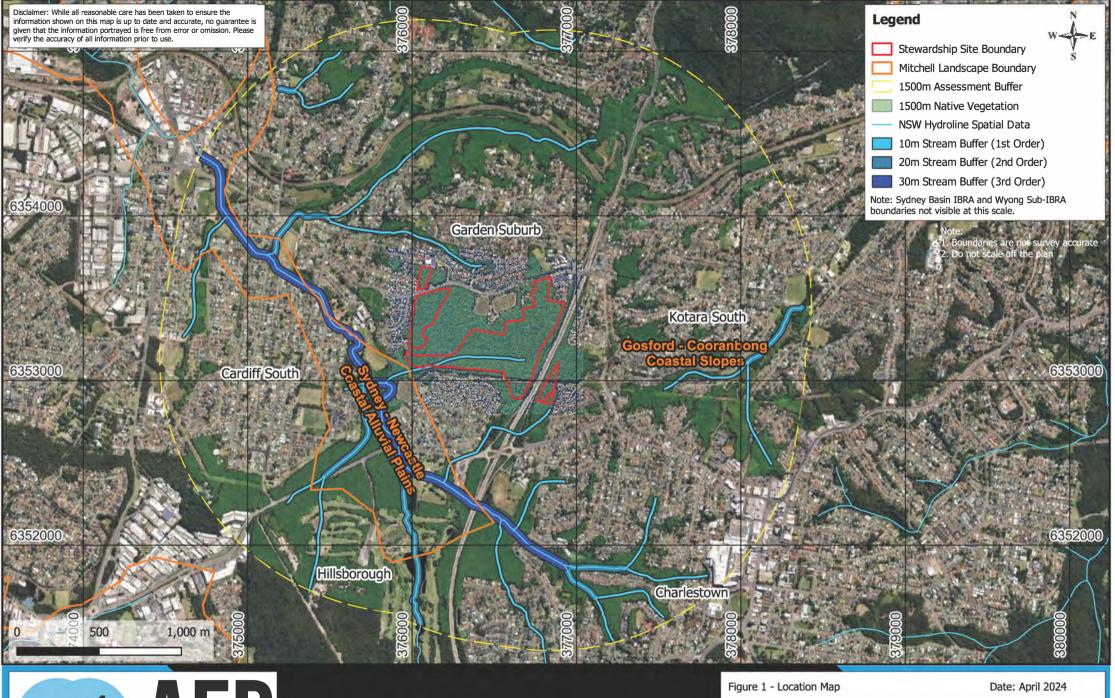
Word/s	Meaning
Sediment Trap	A temporary or permanent structure used to collect, trap and store sediment to prevent entry of sediment to a waterway
Species	The meaning given in the Biodiversity Assessment Method.
Credits	Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "the class of biodiversity credits created or required for the impact on threatened species that cannot be reliably predicted to use an area of land based on habitat surrogates. Species that require species credits are listed in the Threatened Biodiversity Data Collection"
Species Polygon	An identification of the area or count and location of the suitable habitat for a Species Credit species on the Biodiversity Stewardship Site, prepared as part of the Biodiversity Stewardship Site Assessment Report
Stock	The meaning given in the <i>Local Land Services Act 2013</i> (NSW), and including any animal declared to be stock under the <i>Local Land Services Regulation 2014</i> (NSW)
	Note: This definition may change from time to time with changes in Law, but on the Agreement Date the meaning was:  "cattle, horses, sheep, goats, camels, alpacas, llamas, pigs, deer, ostriches, emus or, in relation to any specified provision or provisions of this Act, any other kind of animal declared by the regulations to be stock for the purposes of that provision or those provisions"
Targeted Supplementary Planting	Planting of locally indigenous native plants in one or more areas of the Biodiversity Stewardship Site to:
Planting	<ul> <li>a) increase Native Plant species richness and foliage cover of a vegetation zone above the level determined for management gain, and/or</li> <li>b) restore or enhance the native plant species composition and structure of</li> </ul>
	recognisable PCTs, and/or c) improve habitat suitability for specific Threatened Species
Threatened Biodiversity Data Collection	The meaning given to it in the Biodiversity Assessment Method  Note: This definition may change from time to time with changes in the Biodiversity Assessment Method but on the Agreement Date the meaning was "part of the BioNet database, published by DPIE (previously the Office of Environment and Heritage) and accessible from the BioNet website at <a href="https://www.bionet.nsw.gov.au">www.bionet.nsw.gov.au</a> "
Threatened Species Habitat Management Plan	The plan titled "Threatened Species Habitat Management Plan" included in Section 4 of this Management Plan
Threatened Species Habitat map	The map of Threatened Species locations and Species Polygons within the Biodiversity Stewardship Site
Vegetation Integrity Survey Plot	The meaning given to 'plot' in the Biodiversity Assessment Method and described in Section 5.3.4 of the Biodiversity Assessment Method  Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "an area within a vegetation zone in which site attributes are assessed"
Vegetation Zone	The meaning given in the Biodiversity Assessment Method  Note: This definition may change from time to time with changes in the Biodiversity Assessment Method, but on the Agreement Date the meaning was "a relatively homogenous area of native vegetation on a development site, land to be biodiversity certified or a biodiversity stewardship site that is the same PCT and broad condition state"

## Section 1: Management Actions



Part 1	Fire management	Timing
1.1 (Required management action)	The Owner must implement and comply with the Fire for Conservation Management Plan.	Ongoing from Agreement Date.

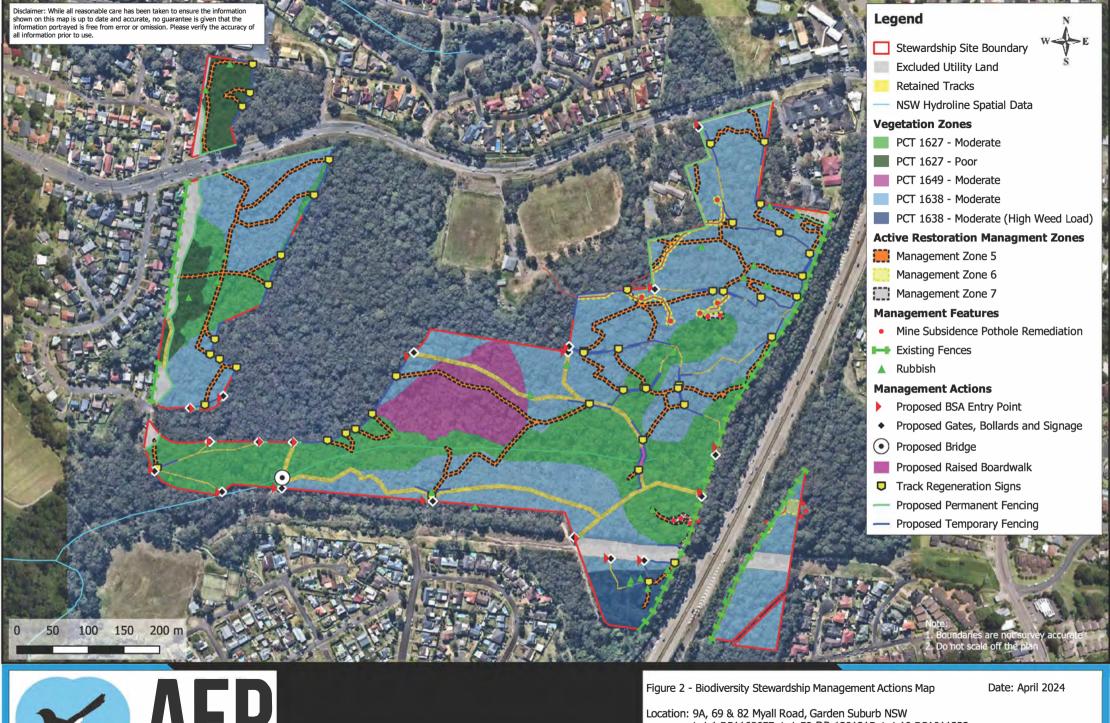
Management Actions										
Part 2	Grazing mar	nagement	Timing							
2.1 (Required management action)	(a)	The Owner must not graze Stock on the Biodiversity Stewardship Site.	Ongoing from Agreement Date.							





Location: 9A, 69 & 82 Myall Road, Garden Suburb NSW Lot 1 DP1168657, Lot 50 DP 1301215, Lot 10 DP1011323

AEP ref: 3043 Client: Landcom





Lot 1 DP1168657, Lot 50 DP 1301215, Lot 10 DP1011323

AEP ref: 3043 Client: Landcom

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	If no grazing is to be allowed, replace the above part with:	
	"The Owner must not graze Stock on the Biodiversity Stewardship Site."	
	Then delete the words in part 2.2 (but keep the numbering) and replace with: "This part is not applicable."	
2.2	This part is not applicable.	
(Required management action)		
2.3 (Required management action)	If, at any time, the Owner observes Stock in any area of the Biodiversity Stewardship Site, other than an area where grazing is permitted, the Owner must take necessary measures to remove the Stock from the area immediately.	Ongoing from Agreement Date
Part 3	Native Vegetation management	Timing
3.1 (Required management	Native Vegetation on the Biodiversity Stewardship Site must not be cut down, felled, thinned, logged, killed, destroyed, poisoned, ringbarked, uprooted, burnt or otherwise removed, except:	Ongoing from Agreement Date
action)	<ul> <li>(a) in accordance with Part 3.6.4 of this section;</li> <li>(b) it is specifically permitted or required as part of a Management Action; or</li> <li>(c) it is essential to a carry out an action permitted under clause 6 of this Deed.</li> </ul>	
3.2 (Required management action)	Where Part 3.1 of this section permits Native Vegetation on the Biodiversity Stewardship Site to be burnt, it may only occur in accordance with the Fire for Conservation Management Plan.	Ongoing from Agreement Date
3.3 (Required management action)	Native Vegetation must be managed on the Biodiversity Stewardship Site to improve Threatened Species habitat if required as part of a Management Action for Threatened Species on the Biodiversity Stewardship Site under this Deed.	Ongoing from First Payment Date.
3.4 (Required management action)	<ul> <li>(a) Except as permitted by Part 3.4(b), and to as far an extent practicable, the Owner must prevent nutrients from Fertilisers and other sources (other than those that would occur as a result of natural ecosystem function) from entering the Biodiversity Stewardship Site, including waterways within the Biodiversity Stewardship Site.</li> <li>(b) Fertilisers and Pesticides must not be applied on the Biodiversity Stewardship Site, except where permitted or required as part of a Management Action specified in the Native Vegetation Management Plan. Use of Fertilisers for establishing Native Vegetation through planting or seeding, use of herbicides for controlling weeds or use of Pesticides for controlling feral pests may be undertaken in accordance with best practice management when required to undertake Management Actions specified in the Native Vegetation Management Plan.</li> </ul>	Ongoing from Agreement Date
3.5	Native Vegetation and habitat management and augmentation must be implemented as set out in Part 3.6 (including sub-parts 3.6.1 to 3.6.5) and in Part 3.7 in accordance with Management Actions specified in the Native Vegetation Management Plan.	Ongoing from First Payment Date.

(Active restoration action)	If no native vegetation and habitat management and augmentation active restoration activities are proposed, replace the above part with: "This Part 3.5 is not applicable." and delete Part 3.6 (including subparts 3.6.1 to 3.6.5) and Part 3.7.					
3.6 (Active	Targeted Supplementary Planting must be undertaken in accordance with this Part 3.6 and the Native Vegetation Management Plan to:	Ongoing from First Payment				
restoration action)	<ul> <li>a) increase Native Plant species richness and foliage cover above the level determined for management gain, and/or</li> <li>b) restore or enhance the Native Plant species composition and structure of recognisable PCTs, and/or</li> <li>c) improve habitat suitability for specific Threatened Species.</li> </ul>	Date.				
	If no Targeted Supplementary Planting is proposed, replace the above part with: "This Part 3.6 is not applicable." and delete Parts 3.6.1 to 3.6.5.					
3.6.1 (Active restoration	The Owner must undertake Targeted Supplementary Planting of the species indicated in the planting schedule as set out in the Native Vegetation Management Plan for the Biodiversity Stewardship Site.	Ongoing from First Payment Date				
action)	If the Owner cannot complete the planting within the timeframe indicated in the planting schedule due to local weather conditions, the Owner must complete the planting as soon as possible after that date and must make a record of and retain the reasons why the planting was not completed by the required time.					
3.6.2 (Active restoration action)	The Native Vegetation Management Plan must specify the period following planting or seeding over which grazing must be excluded from areas of Targeted Supplementary Planting. The period may be expressed as a period of time prior to a specified date, or by reference to a minimum height of the plants that must be reached before grazing can occur.	Ongoing from First Payment Date				
	An area over which Targeted Supplementary Planting has occurred must not be grazed for the period referred to above.					
	After that date has occurred or height has been met, grazing in the areas of planting or seeding must be managed in accordance with Part 2 of this Section 1.					
	The Owner must make a record of the date when the height requirement for each relevant area of Targeted Supplementary Planting has been reached, and maintain that record in accordance with the record keeping requirements in Part 1 of Attachment 3 of this Deed and the Monitoring Plan.					
	Different years or heights for specific types of plants can be listed in the Native Vegetation Management Plan.					
3.6.3 (Active restoration action)	The Owner must monitor each area of Targeted Supplementary Planting in accordance with the Monitoring Plan and determine the success of planting relative to the performance indicators specified in the Native Vegetation Management Plan	Ongoing from First Payment Date.				
	The Owner must document whether the plantings have established and survived, and retain the findings in accordance with the record keeping requirements in Part 1 of Attachment 3 of this Deed and the Monitoring Plan.					
	If, after the first survey or subsequent surveys, the establishment and survival rate of plants in an area of planting are below those identified in relevant performance measures, the Owner must supplement the planting in the adversely affected areas within a reasonable timeframe (usually within 12 months, though this can be varied and recorded in a diary with reasons for variation, if the weather is unsatisfactory for the establishment and survival of plants or seeds).					
<b>2</b>		<u> </u>				

3.6.4 (Active restoration action)	All areas of Targeted Supplementary Planting must be managed as required to assist the establishment and survival of Native Plant species.  Management includes watering, slashing, scalping, spraying of weeds, plant replacement and strategic grazing by Stock (in accordance with Part 2 above) at strategic times of the year to control weeds to improve Biodiversity Values. The dates of planting must be recorded in accordance with the record keeping requirements set out in in Part 1 of Attachment 3 of this Deed and the Monitoring Plan.	Ongoing from Agreement Date
3.6.5 (Active restoration action)	Plants used for Targeted Supplementary Planting must be obtained from locally collected provenances, unless there are reasons to do otherwise (e.g. to ensure genetic variability or for adaptation to climate change).	Ongoing from Agreement Date
3.7 (Active restoration action)	Hydrology management must be implemented in accordance with the Native Vegetation Management Plan to aid the restoration of Native Vegetation in instances where the hydrology of the Biodiversity Stewardship Site has been disrupted or altered.	Ongoing from First Payment Date.
-	If no changes to hydrology are proposed as an active restoration action, replace the above part with: "This Part is not applicable."	
Part 4	Threatened Species habitat management and enhancement	Timing
4.1 (Required management	The Owner must protect breeding habitat features and sites for all Threatened Species for which Species Credits or Ecosystem Credits have been created.	Ongoing from Agreement Date
action)	Known breeding sites of Threatened Species on the Biodiversity Stewardship Site are shown on the Threatened Species Habitat map.	
4.2 (Required management action)	The Owner must undertake all Management Actions described in the Threatened Species Habitat Management Plan.  The Threatened Species Management Plan is to include all practical and relevant management actions identified in the Threatened Biodiversity Data Collection for a Threatened Species for which Species Credits or Ecosystem Credits have been created.	Ongoing from First Payment Date
4.3	This Part is not applicable	Ongoing from
(Active restoration action)	If no habitat enhancement active restoration activities are proposed, replace the above part with: "This Part is not applicable." and delete Parts 4.3.1 – 4.3.4.	First Payment Date
Part 5	Hydrology Management	
5.1	This part is not applicable	
(Active restoration action)	If hydrology management activities will only be set out in either the Threatened Species Habitat Management Plan or Native Vegetation Management Plan, delete reference to the other plan in the highlighted section of the above part. If hydrology management activities are to be set out in both plans, replace 'and/or' with 'and' in the highlighted section of the above part.	
	If no hydrology management is proposed as an active restoration action, replace the above part with "This part is not applicable" and delete Parts $5.2-5.5$ .	
Part 6	Integrated Feral Pest Control	Timing
6.1 (Required management action)	The Owner must implement and comply with the Integrated Feral Pest Management Plan.	Ongoing from First Payment Date

Part 7	Integrated weed management and control of High Threat Exotic Plants	Timing
7.1 (Required management action)	The Owner must implement the Integrated Weed Management Plan. The Integrated Weed Management Plan must include measures to:  (a) control the spread of High Threat Exotic Species and other weed species within the Biodiversity Stewardship Site.  (b) undertake fine-scale intensive removal of High Threat Exotic and other exotic vegetation.	Ongoing from First Payment Date
7.2 (Active restoration action)	This part is not applicable	
Part 8	Management of human disturbance	Timing
8.1 (Required management action)	<ul> <li>(a) Dead timber (whether standing or fallen and including branches and leaf litter) must not be removed from or moved within the Biodiversity Stewardship Site except for the personal (noncommercial) use by the Owner for firewood for one dwelling only or for repair of fencing (not for construction of fencing).</li> <li>(b) The Owner must document in writing any dead timber used for firewood or for fencing repair and keep such records in accordance with the record keeping requirements described in Part 1 Attachment 3 of the Deed and the Monitoring Plan. The Owner must record the approximate amount of dead timber collected from the Biodiversity Stewardship Site for use as firewood or for fencing (in lineal metres), the location from which the dead timber was collected and the date it was collected (month, year).</li> </ul>	Ongoing from Agreement Date

#### 8.2

(Required management action)

- The Owner must take all reasonable steps to prevent, control and remedy erosion on the Biodiversity Stewardship Site.
- Soil management for preventing and controlling erosion must be undertaken using best practice soil management techniques applied as relevant for the Biodiversity Stewardship Site.
- The Owner must manage existing erosion on the Biodiversity Stewardship Site, identified on the Biodiversity Stewardship Site Management Actions Map, by conducting:
- Identified mine subsidence locations on site will be remediated.
- Mine subsidence potholes will be filled and any impacts to vegetation will be subject to active restoration.

The following methodology and protocols will be utilised for restoration pothole mine subsidence remediation areas (Management Zones 6 and 7):

#### **Active Restoration**

Tracks created to undertake remediation will be temporarily fenced postremediation works to allow for vegetation restoration. The temporary fencing excluding access to the restoration area will be removed after 5 years.

Active restoration will consist of supplementary plantings throughout the entirety of Management Zone 6 utilising species listed in **Section 3: Targeted Supplementary Planting Schedule at the Biodiversity Stewardship Site.** Plantings will be undertaking in accordance with the following management actions and costed in the TFD:

- 1. Mulching
- 2. Initial planting, watering and installation of tree guards
- 3. Weekly water for 3 months after initial planting.
- 4. Monthly water 4-12 months after initial planting.
- 5. Watering cease 12months after initial planting.
- Primary weeding to occur monthly for 12months after initial planting.
- 7. Weeding to occur every 3 months for the 1–5-year period post initial planting.
- 8. Dead plants to be replaced monthly for 12months after initial planting.
- Dead plants to be replaced 6-monthly for the 2–5-year period post initial planting.
- 10. Tree guards to be replaced monthly for 12months after initial planting as required.
- 11. Tree guards to be replaced 6-monthly for the 2–5-year period post initial planting as required.
- 12. Tree guards to be removed 5 years after initial planting.

Active restoration measures and monitoring are detailed in **Section 1: Part 3**, **Section 3: Native Vegetation Management Performance Measures**, and **Section 7A.3** and **7A.4**.

#### **Hygiene Protocols:**

During all mine subsidence remediation works, biosecurity protocols will be implemented to prevent the introduction and spread of weeds and pathogens.

Hygiene control stations will be supplied for Plant, Machinery, Tools and Boots Hygiene, and the following hygiene controls will be employed:

Ongoing from First Payment Date

	<ul> <li>All plant/machinery is to be washed down upon entry to site and prior to exiting site;</li> <li>All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;</li> <li>Boots should be clean and free of soil and seeds before entry to site and before exiting site; and</li> <li>Boots should be sterilised in a similar manner to tools after soil and seed removal.</li> <li>Minimisation of work during excessively wet or muddy conditions;</li> <li>All plants and soils used/brought into site must be disease-free.</li> </ul>	
8.3 (Required management action)	The Owner must not:  (a) remove, or cause or permit to be removed, rocks from the Biodiversity Stewardship Site; or  (b) move, or cause or permit to be moved, rocks within the Biodiversity Stewardship Site.	Ongoing from Agreement Date
8.4 (Required management action)	<ul> <li>(a) Rubbish existing on the Biodiversity Stewardship Site at the Agreement Date is identified on the Biodiversity Stewardship Site Management Actions Map.</li> <li>(b) The Owner must remove Rubbish identified on the map described above in Part 8.4(a) from the Biodiversity Stewardship Site in an appropriate manner.</li> </ul>	Ongoing from First Payment Date
8.5 (Required management action)	The Owner must take all reasonable steps to remove Rubbish deposited by others on the Biodiversity Stewardship Site, or which is otherwise present on the Biodiversity Stewardship Site.	Ongoing from First Payment Date
8.6 (Required management action)	The Owner must not store, dispose of, or cause or permit to be disposed of, any Rubbish on the Biodiversity Stewardship Site.	Ongoing from Agreement Date

# 8.7 (Required management action)

The Owner must install and maintain fencing and signage to deter human disturbance including Rubbish dumping. Signage must be obtained from the NSW BCT.

When installing and maintaining fencing and signage, the Owner must meet the following requirements:

- Existing intact boundary fencing will be maintained. Approximate total length of 1170.24m (see Figure 2).
- Bollards and heavy swing gates are to be installed at each of the 19 BSA site pedestrian access points.
- Permanent fencing will be installed along the northern portion of the BSA site adjacent Myall Road, on the western portion to exclude residential APZs and at each BSA site pedestrian access (refer Figure 2). Fencing to be prefabricated 'hinged joint', galvanised wire mesh fence; mesh size will be in accordance with the BCT Essential Conservation Fencing Guide.
- Permanent fencing will be installed at each pedestrian access point (refer Figure 2). Fencing length and direction will consider native vegetation coverage at each pedestrian access point and be installed to avoid native vegetation removal. For the purposes of the TFD calculation, 20m of fencing (10m either side) has been mapped at each access point. Fencing to be prefabricated 'hinged joint', galvanised wire mesh fence; mesh size will be in accordance with the BCT Essential Conservation Fencing Guide.
- Total length of permanent fencing will be approximately 1552.77m.
- Temporary fencing and signage will be installed at the start of any walking trail proposed for restoration and will extend 30m either side of the trail (refer **Figure 2**). Fencing to be 5 strand plain wire steel post fence. The temporary fencing will remain in place for 5 years.
- A pedestrian access bridge will be installed across the creek in the south west at the existing walking trail crossings (refer Figure 2). TFD is estimated on a design of 6-10m long, 1500mm wide, balustrade/handrail, FRP Deck, 3kpa loading, concrete entry/exit ramp 5m long each end.
- A pedestrian boardwalk of approximately 40m will be installed across the creek in the south east at the existing walking trail crossings (refer Figure 2). TFD estimate based on 40m long boardwalk, 1500mm wide, no balustrades or handrails, includes kick rail, FRP Deck, Headstock subject to design and Geotechnical advice.
- Biodiversity Stewardship Site and Responsible Pet Ownership signage is to be displayed at each of the nineteen (19) BSA site pedestrian access points.

If only fencing or signage are to be installed and maintained delete reference to the other in the highlighted section of the above part. If both fencing and signage are to be installed and maintained, replace 'and/or' with 'and' in the highlighted section of the above part.

Signage should be located at points of access and other practical locations interfacing with adjoining properties. For Biodiversity Stewardship Sites that may be located fully within private landholdings, there should be at least one Biodiversity Stewardship Site sign to be placed at the main access gate to the site.

Signage must be installed within 2 months of the First Payment Date

All other requirements in Part 8.7 are ongoing from First Payment Date

8.8 (Required management action)	The locations of existing and proposed fencing, gates, firetrails and access tracks (where permitted or required by a Management Action) on the Biodiversity Stewardship Site, are identified on the Biodiversity Stewardship Site Management Actions Map.	On Agreement Date
8.9 (Required management action)	<ul> <li>(a) Existing firetrails and access tracks within the Biodiversity Stewardship Site (identified on the Biodiversity Stewardship Site Management Actions Map), where retained, must be maintained to permit the carrying out of Management Actions.</li> <li>(b) All existing firetrails and access tracks within the Biodiversity Stewardship Site must be maintained to control and minimise erosion.</li> </ul>	Ongoing from Agreement Date
Part 9	Monitoring	Timing
9.1 (Required Management action)	The Owner must undertake monitoring in accordance with the Monitoring Plan.	Ongoing as specified in Section 7 – Monitoring Plan
9.2 (Required	The Owner must establish permanent Photo Points at locations within the Biodiversity Stewardship Site as described in the Monitoring Plan.	Ongoing from Agreement Date
management action)	Fences, tracks and bridges must be inspected annual for maintenance requirements.	
	Nest boxes are to be inspected annual for maintenance requirements.	
9.3 (Required management action)	The Owner must conduct, or arrange for the conduct of, an inspection of the Biodiversity Stewardship Site at the times, and having regard to the purpose, set out in the Monitoring Plan.	Ongoing as specified in Section 7 – Monitoring Plan
9.4 (Required management action)	<ul> <li>(a) The Owner must establish permanent Vegetation Integrity Survey Plots within 12 months after the Agreement Date with the purpose of providing a baseline for assessing Biodiversity outcomes in the future.</li> <li>(b) The Vegetation Integrity Survey Plots must be permanently marked and labelled using steel posts (i.e. star picket or equivalent durable post).</li> <li>(c) The Owner must record the location and label of each of the Vegetation Integrity Survey Plots in the Monitoring Plan using the format described therein.</li> </ul>	Within 12 months of the Agreement Date and ongoing thereafter
9.5 (Required management action)	<ul> <li>(a) The Owner must monitor the Biodiversity Stewardship Site for evidence of plant disease or dieback within the Native Vegetation present on the site.</li> <li>(b) The Owner must report any evidence of plant or animal disease on the site to the NSW BCT as soon as practicable.</li> </ul>	Ongoing as specified in Section 7 – Monitoring Plan
9.6 (Active restoration action)	The monitoring plan must contain measurable performance targets related to the active restoration management actions such as:  • evidence of occupation of and condition of artificial hollows or relocated logs and stags  • persistence and abundance of species targeted by	Ongoing as specified in Section 7 – Monitoring Plan
	supplementary plantings or sowings.  If active restoration management actions are not proposed within the Biodiversity Stewardship Site, replace the above part with:	
	"This part is not applicable."	

# **Section 2: Fire for Conservation Management Plan**

### Completing the fire for conservation management plan

A table is provided below for the fire conservation management plan. Add additional sections to the table if required. The plan must include, but is not limited to:

- a map identifying the areas to be burnt during each Ecological Burn (the Ecological Burn Map).
   Areas to be burnt are to be based on broad habitat zones across the Biodiversity Stewardship Site.
- the year the last fire went through, the type of fire and the extent of the fire and location, where known
- frequency of natural fires in the area of the Biodiversity Stewardship Site, where known
- a description of locations and Management Zones where Ecological Burns will be conducted and areas that will not be burnt
- the methods that will be used for Ecological Burns
- the fire frequency intervals recommended for the vegetation types and Threatened Species present, including any required adjustment to the schedule in the event of a wildfire or activities undertaken under the Rural Fires Act 1997 (NSW) to ensure minimum frequency between Ecological Burns
- the fire intensity for the recommended vegetation types
- the time of year suitable for Ecological Burns
- clear, measurable objectives and performance indicators to demonstrate how the management action will achieve gain on the Biodiversity Stewardship Site.

Requirements for monitoring the performance of the Fire for Conservation Management Plan are set out in Section 7 – Monitoring Plan and include:

- methods for monitoring the outcomes of Ecological Burns
- reporting and assessing the results from monitoring
- the diary for recording actions taken in accordance with the Fire for Conservation Management Plan
- 1. Previous known fire events affecting the land that is the Biodiversity Stewardship Site are described in the table in this plan titled 'Fire history for previous 20 years (or longer if known)' to provide an indication of local fire conditions including intensity and frequency.
- 2. The Owner must carry out Ecological Burns for each Management Zone according to the following:
  - (a) the method and frequency described in the table in this plan titled 'Ecological Burning actions';
  - (b) the areas to be burnt identified in the Ecological Burn Map;
  - (c) the requirements for each vegetation type or Threatened Species as described in the table in this plan titled 'Fire requirements for vegetation types and threatened species'.
  - (d) the following NSW Rural Fire Service publications:
    - (i) 'Rules and Notes for implementation of the Threatened Species Hazard Reduction List for the Bush Fire Environmental Assessment Code';
    - (ii) 'Threatened Species Hazard Reduction List Part 1 Plants';
    - (iii) 'Threatened Species Hazard Reduction List Part 2 Animals'; and
    - (iv) Threatened Species Hazard Reduction List Part 3 Threatened Ecological Communities'; and
  - (e) establish a mosaic-pattern of different burn ages (i.e. time since fire) across Ecological Burn Units (as displayed on the Ecological Burn Map) to ensure the Biodiversity Stewardship Site retains refuge areas for native fauna at all times.
- 3. The Owner must take the fire frequencies recommended in BioNet or other published sources of any Threatened Species on the Biodiversity Stewardship Site into consideration when determining the frequency of Ecological Burns.
- 4. The Owner must avoid areas containing Threatened Species when constructing fire containment lines.

- 5. The Owner must implement the activities (if any) described in the table in this plan titled 'Other fire management activities'.
- 6. The Owner must meet the performance measures described in the table in this plan titled 'Fire Management Performance Measures'.
- 7. The Owner must implement the monitoring and inspections of fires as described in the Monitoring Plan.

Where Species Credits are generated on the Biodiversity Stewardship Site the Species Polygon must be displayed on the Map of areas to be burnt during each Ecological Burn. Where the fire regime of the species credit species differs from that of the surrounding vegetation the management plan must demonstrate how the species polygon will be treated or excluded to ensure inappropriate fire regimes do not adversely impact the species;

Fire history	Fire history for previous 20 years (or longer if known)					
Year of fire	Hazard reduction	n, wildfire burn or Ecological B	urn and extent of t		Management Zone/s	
1996 - 1997	Wildfire					
Fire require	ments for vegetat	ion types and Threatened Spec	ies			
Vegetation type and/or Threatened Species	Fire frequency required  Time of year for burning required  Fire intensity required		red wi ac un the	ljustment quired due to Idfires or tivities dertaken under e <i>Rural Fires Act</i> 97 (NSW)		
NA – No fire r	nanagement plan pro	posed.	•			
		<b>Ecological Burning acti</b>	ions			
Manage	& ye extinguishin Eco			Time of year for Ecologial Bur	or y (years)	
NA – No fire r	nanagement plan pro	posed.				
	Other fire management activities (where required)					
NA – No fire r	NA – No fire management plan proposed.					

Ecological Burn Map					
NA – No fire management plan proposed.					

Fire Management Performance Measures			
Management Zone/s	Performance indicator (e.g. % Management Zone burnt)		
N/A	NA – No fire management plan proposed.		

## **Section 3: Native Vegetation Management Plan**

### **Completing the Native Vegetation Management Plan**

A table is provided below for completing the Native Vegetation Management Plan. Add additional fields to the table as required.

The description and location (Management Zones) of native vegetation management actions to be undertaken by the Owner are listed in the Native Vegetation Management Plan.

This plan includes some management actions listed as required Native Vegetation Management actions in Section 13.3.2 of the BAM (2016) ("Required management actions"). It may also include actions to manage and augment threatened Native Vegetation and Threatened Species habitat where approved as active restoration management actions (Section 13.3.3 of the BAM). Active restoration management actions may be approved where it can be demonstrated that management and/or augmentation is feasible for the target Plant Community Type or Threatened Species of the proposed active restoration activity.

The Native Vegetation Management Plan must:

- (i) identify the target PCTs for which management and augmentation will be undertaken and Management Zones where actions will be undertaken;
- (ii) specify the requirements for the ongoing management and maintenance within the Biodiversity Stewardship Site; and
- (iii) detail ongoing monitoring requirements for the relevant PCTs and include measures of success and contingencies in the event of failure.

Where hydrology management activities are proposed, the Native Vegetation Management Plan must:

- (i) identify the PCT for which hydrology management will be undertaken;
- (ii) specify the requirements for the ongoing management and maintenance of hydrology within the Biodiversity Stewardship Site; and
- (iii) detail ongoing monitoring requirements for the relevant PCT and include measures of success and contingencies in the event of failure.

The locations and extent of areas proposed for Native Vegetation Management must be clearly identified and mapped.

Where Targeted Supplementary Planting is proposed as an active restoration management action to manage and/or augment Native Vegetation or Threatened Species habitat, the Native Vegetation Management Plan must include detailed prescriptions for planting schedules, including:

- species list per Management Zone
- planting method specify whether plants are to be tubestock, direct seeding or another method
- number of plants per area for tubestock, the number of plants should be rounded to the nearest 100 if there are more than 1,000 plants or to the nearest 10 if there are 1,000 plants or fewer;
- timing described as the number of months (or Year if relevant) for completion of planting after First Payment Date.
- Management of supplementary planting includes watering, slashing, scalping, spraying of weeds, and plant replacement.

Appropriate site treatment (e.g. weed control) of each area of planting or seeding identified in the planting schedule must be identified in the Native Vegetation Management Plan and undertaken prior to such planting.

The Native Vegetation Management Plan must set out the period following planting or seeding over which grazing must be excluded from areas of Targeted Supplementary Planting. The period may be expressed as a date following planting or seeding, or as a minimum height that must be obtained by all planted or seeded plants before grazing is permitted.

The Native Vegetation Management Plan must contain clear, measurable objectives and performance indicators to demonstrate how the Management Action will achieve gain on the Biodiversity Stewardship site.

Requirements for monitoring the performance of the Native Vegetation Management Plan are set out in Section 7 – Monitoring Plan and include:

- methods for monitoring the outcomes of Native Vegetation Management
- reporting and assessing the results from monitoring
- the diary for recording actions taken in accordance with the Fire for Conservation Management Plan
- The Owner must carry out Native Vegetation Management for each Management Zone according to the method and frequency described in the table in this plan titled 'Native Vegetation Management Actions';
- 2. The Owner must undertake Targeted Supplementary Planting in accordance with the table in this plan titled 'Targeted Supplementary Planting Schedule at the Biodiversity Stewardship Site'.
- 3. The Owner must meet the performance measures described in the table in this plan titled 'Native Vegetation Management Performance Measures'.
- **4.** The Owner must implement the monitoring of Native Vegetation management as described in the Monitoring Plan.

Native Vegetation Management Actions					
Management Zone	Description of Vegetation Management action	Frequency and timing	Management Action Type (Required or Active)		
5	Fencing of tracks to be regenerated with five strand plain wire and star pickets in accordance with the BCT Essential conservation fencing infrastructure guidelines.  Regular inspection and maintenance of temporary fencing.  Restoration of existing walking trails via installation of brush matting.  Brush matting will be used to cover and seed walking trails in Management Zone 5.  The supply of Brush Matting material will be through the collection of small timber and seeded material from the adjacent development. The material will be collected and stored in large bins to retain seed material. The salvaged small timber, leafy material and seed matter will be dispersed over Management Zone 5.  Trail restoration will aim to achieve benchmark vegetation cover conditions across all trails from year 15+. Ongoing monitoring as per Section 7 will be undertaken to inform adaptive management actions and effectiveness of public education.  Public education to include signs providing information on Stewardship Site purpose, objectives and method to achieve objectives.  Fencing will be removed when performance indicators have been achieved.	Immediately after clearing associated with the adjacent development.  Biannual inspection until performance indicators are achieved and temporary fencing can be removed. Areas requiring maintenance will be repaired within two (2) months.	Required		
6, 7	Active Restoration following mine subsidence remediation works  Tracks created to undertake remediation will be temporarily fenced post-remediation works to allow for vegetation restoration. The temporary fencing excluding access to the restoration area will be	Year 1.  Monitoring of Management Zone 6 and 7 as per Section 7.	Active		

removed once performance indicators have been achieved.

Active restoration will consist of supplementary plantings throughout the entirety of Management Zone 6 and 7 utilising species listed in **Section 3: Targeted Supplementary Planting Schedule at the Biodiversity Stewardship Site.** Plantings will be undertaking in accordance with the following management actions and costed in the TFD:

- Mulching
- Initial planting, watering and installation of tree guards.
- · Weekly water for 3 months after initial planting.
- Monthly water 4-12 months after initial planting.
- · Watering cease 12months after initial planting.
- Primary weeding to occur monthly for 12months after initial planting.
- Weeding to occur every 3 months for the 1–5year period post initial planting.
- Dead plants to be replaced monthly for 12months after initial planting.
- Dead plants to be replaced 6-monthly for the 1–5-year period post initial planting.
- Tree guards to be replaced monthly for 12months after initial planting as required.
- Tree guards to be replaced 6-monthly for the 1–5-year period post initial planting as required.
- Tree guards to be removed 5 years after initial planting.

Active restoration measures and monitoring are detailed in Section 1: Part 3, Section 3: Native Vegetation Management Performance Measures, and Section 7A.3 and 7A.4.

### **Hygiene Protocols:**

During all mine subsidence remediation works, biosecurity protocols will be implemented to prevent the introduction and spread of weeds and pathogens.

Hygiene control stations will be supplied for Plant, Machinery, Tools and Boots Hygiene, and the following hygiene controls will be employed:

- All plant/machinery is to be washed down upon entry to site and prior to exiting site;
- All tools being utilised on site should be sterilised and washed free of soil before use and at the end of each day;
- Boots should be clean and free of soil and seeds before entry to site and before exiting site; and
- Boots should be sterilised in a similar manner to tools after soil and seed removal.
- Minimisation of work during excessively wet or muddy conditions; and
- All plants and soils used/brought into site must be disease-free.

Targe	Targeted Supplementary Planting Schedule at the Biodiversity Stewardship Site						
Species' common name	Species scientific name	Management Zone/s of planting	Number of plants per area	Planting method	Timing (months or Year)		
Red Bloodwood	Corymbia gummifera	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Smooth- barked Apple	Angophora costata	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Sydney Peppermint	Eucalyptus piperita	6	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Brown Stringybark	Eucalyptus capitellata	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Broad- leaved Scribbly Gum	Eucalyptus haemastoma	6, 7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Black She- oak	Allocasuarina littoralis	7	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Turpentine	Syncarpia glomulifera	6	3:1 ratio of replacement to impacted individuals during mine subsidence remediation	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		
Old-man Banksia	Banksia serrata	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.		

Tantoon	Leptospermum polygalifolium	6	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Slender Tea- tree	Leptospermum trinervium	7	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Red- stemmed Wattle	Acacia myrtifolia	7	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Mountain Devil	Lambertia formosa	7	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Slender Rice Flower	Pimelea linifolia	7	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Christmas Bush	Ceratopetalum gummiferum	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Broad- leaved Geebung	Persoonia levis	6, 7	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Prickly Moses	Acacia ulicifolia	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Narrow- leaved Geebung	Persoonia linearis	6	1/10m <sup>2</sup>	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
White Wattle	Acacia linifolia	6	1/10m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.

Blue Flax-lily	Dianella caerulea	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Wiry Panic	Entolasia stricta	6, 7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Spiny- headed Mat- rush	Lomandra longifolia	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
Variable Sword- sedge	Lepidosperma laterale	6	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Lomandra obliqua	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Themeda australis	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Ptilothrix deusta	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.
N/A	Lepyrodia scariosa	7	4/m²	A suitably qualified bush regenerator will be engaged	Within 1 month a mine subsidence remediation.

Native Vegetation Management Performance Measures					
Manage- ment Zone/s	Management Action	Performance indicator (e.g. % of Management Zone treated per year, % survival rate of plantings, species abundance).	Timing		
5	Restoration of existing walking trails	Vegetation cover equivalent to benchmark.	20 years		

		The temporary fencing excluding access to the restoration area removed once benchmark conditions have been achieved.  Temporary fence inspections conducted until fencing is removed.  Areas of fencing requiring maintenance repaired within two (2) months	Biannually	
		Restoration of vegetation condition to benchmark state.		
6, 7	Restoration	Vegetation cover equivalent to benchmark.	20 years	
	post-mine subsidence pothole remediation.	Temporary fencing excluding areas of subsidence restoration removed once performance indicators have been achieved.		
		Temporary fence inspections conducted until fencing is removed.	Bi-annually	
		Areas of fencing requiring maintenance repaired within two (2) months.		
		Restoration of vegetation condition to benchmark state.		
6, 7	Supplementary	Dead plants to be replaced monthly for 12months after initial planting.		
	planting maintenance	Dead plants to be replaced 6-monthly for the 1–5-year period post initial planting.		
		Tree guards to be replaced monthly for 12months after initial planting as required		
		Tree guards to be replaced 6-monthly for the 1–5-year period post initia required.	l planting as	
		Tree guards to be removed 5 years after initial planting.		

## **Section 4: Threatened Species Habitat Management Plan**

### **Completing the Threatened Species Habitat Management Plan**

A table is provided below for completing the Threatened Species Habitat Management Plan. Add additional fields to the table as required.

The description and location (Management Zones) of threatened species habitat management actions to be undertaken by the Owner are listed in the Threatened Species Habitat Management Plan.

This plan includes some management actions listed as required management actions in Section 13.3.2 of the BAM (2016) ("Required management actions"). It may also include actions to enhance and augment threatened species habitat where approved as active restoration management actions (Section 13.3.3 of the BAM).

Active restoration management actions relating to Threatened Species Habitat Management may be approved where it can be demonstrated that restoration of habitat is feasible for the target species of the proposed active restoration activity.

The Threatened Species Habitat Management Plan must:

- (i) identify the target Threatened Species for which habitat enhancement will be undertaken and the species polygon in which habitat enhancement actions will be implemented;
- (ii) specify the requirements for the ongoing management and maintenance of habitat enhancement within the Biodiversity Stewardship Site; and
- (iii) detail ongoing monitoring requirements for the relevant species and include measures of success and contingencies in the event of failure.

Where hydrology management activities are proposed, the Threatened Species Habitat Management Plan must:

- (i) identify the Threatened Species and their species polygon for which hydrology management will be undertaken;
- (ii) specify the requirements for the ongoing management and maintenance of hydrology within the Biodiversity Stewardship Site; and
- (iii) detail ongoing monitoring requirements for the relevant species and include measures of success and contingencies in the event of failure.

The locations and extent of areas proposed for threatened species habitat management must be clearly identified and mapped on the Threatened Species Habitat Map. Breeding sites identified on the Biodiversity Stewardship Site must also be mapped on the Threatened Species Habitat Map and protected from disturbance.

Where Targeted Supplementary Planting is proposed as an active restoration management action to improve habitat suitability for specific Threatened Species, this should be identified in the Threatened Species Management Plan with reference made to relevant activities in the Native Vegetation Management Plan.

Habitat enhancement measures may include the installation of artificial nesting boxes, breeding ponds, relocation of fallen logs, relocation and securing of dead hollow bearing stags and/or the relocation of rocks. The Threatened Species Habitat Management Plan must include detailed prescriptions for the ongoing management, replacement and maintenance of installed habitat structures.

Where habitat enhancement measures include the installation of habitat structures, the Threatened Species Habitat Management Plan must:

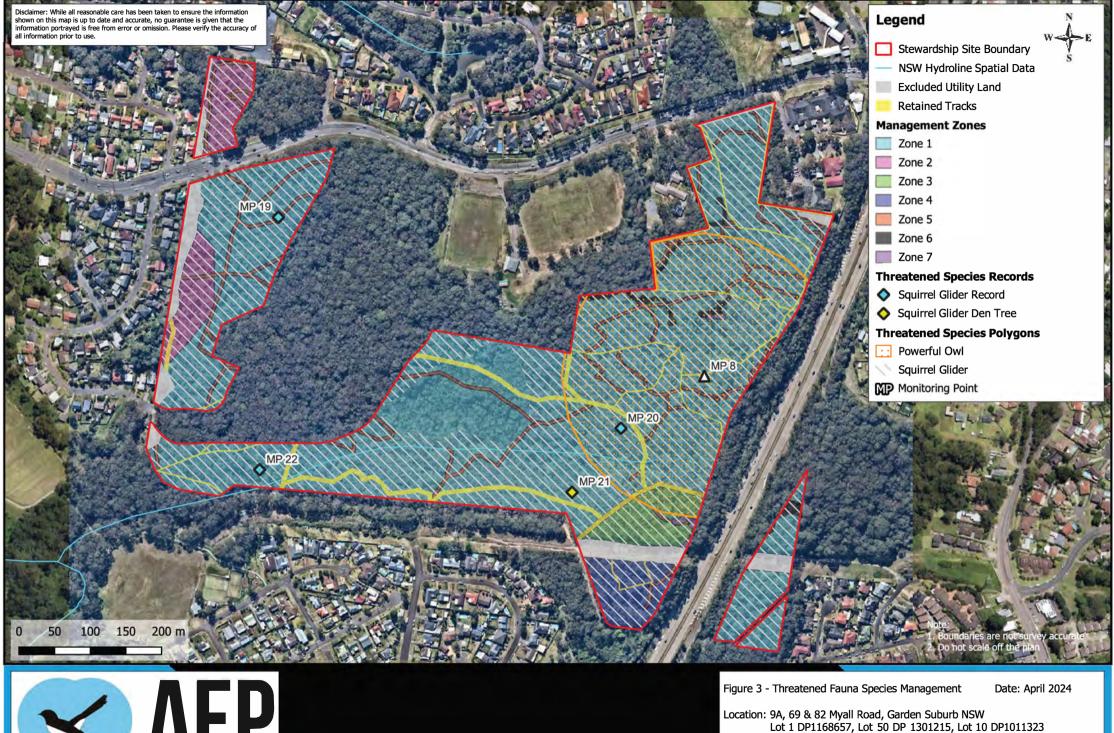
- (i) specify the target Threatened Species, and type of habitat structures to be installed.
- (ii) Specify the number and location of each type of habitat structure to be installed.
- (iii) provide for ongoing management, replacement and maintenance of the installed habitat structures.

- (iv) detail the ongoing monitoring requirements for the installed habitat structures and include measures of success and contingency actions in the event of failure of the habitat structures to improve roosting and breeding habitat for target Threatened Species; and
- (v) provides reference material to support evidence of the target Threatened Species' use of the habitat structures.

The Threatened Species Habitat Management Plan must contain clear, measurable objectives and performance indicators to demonstrate how the Management Action will achieve gain on the Biodiversity Stewardship site.

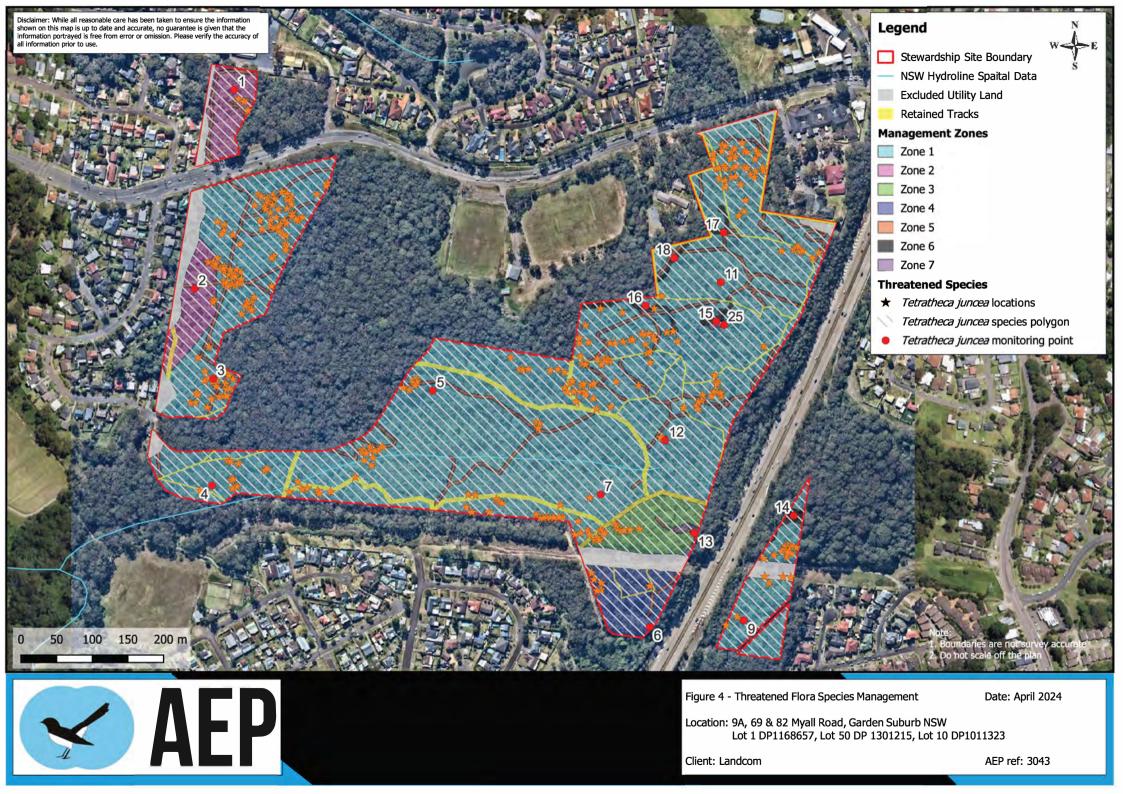
Requirements for monitoring the performance of the Threatened Species Habitat Management Plan are set out in Section 7 – Monitoring Plan and include:

- methods for monitoring the outcomes of Threatened Species Habitat Management
- · reporting and assessing the results from monitoring
- the diary for recording actions taken in accordance with the Threatened Species Habitat Management Plan
- 1. The Owner must carry out the Management Actions for each Management Zone according to the method and frequency described in the table in this plan titled 'Threatened Species Habitat Management Actions';
- 2. The Owner must meet the performance measures described in the table in this plan titled 'Threatened Species Habitat Management Performance Measures'.
- 3. The Owner must implement the monitoring of Threatened Species habitat management as described in the Monitoring Plan.



AEP

Client: Landcom AEP ref: 3043



	Threatened Species Habitat Management Actions						
Name of Threatened Species	Description of habitat management action	Manage- ment Zone/s	Frequen cy and timing	Manageme nt Action Type (Required or Active)			
Squirrel Glider	Ensure plain wire fencing is utilised for installation of temporary fencing.  Monitoring detailed in Section 7: Monitoring Plan.	All	Ongoing	Required			
T. juncea (Black- eyed Susan)	Reduce and maintain weed densities at low levels to ensure minimal competition with weed species.  Any weed management action will consider known locations of <i>T. juncea</i> .  Weed control methods are to be limited to the following in areas of known <i>T. juncea</i> habitat, subject to target weed species requirements:  • Hand removal; • Gas guns; • Scrape and paint; • Cut stump method; • Stem injection; and • Weed wipers.	All	As per Section 6 - Integrate d Weed Manage ment Plan	Required			
Powerful Owl	Monitor nest sites for breeding activity.	4	Ongoing	Required			
Hollow- dependant species	A total of sixty-four (64) small, medium salvaged hollows and large nestboxes will be installed within the BSA lands to satisfy the conditions of consent for the adjacent development. The small and medium hollows will be arboreally installed within the BSA area. Due to size and weight, nestboxes will be used to offset large and extralarge arboreal hollows. Large and extralarge salvaged hollows will be installed as ground habitat within the BSA area.  Salvaged hollows and nestboxes will be installed to provide even coverage across the BSA lands as is practicable. Appropriate trees, and installation heights and positions will be determined by the climber/installer on the day of installation.  Monitoring detailed in Section 7: Monitoring Plan.	All	Within 6 months of first payment	Required (to satisfy the conditions of consent for the adjacent developme nt)			
Hollow- dependant species	The condition of nestboxes will be monitored and assessed annually post installation and replaced if the nestbox is deemed unusable.	All	Annually	Required (to satisfy the conditions of consent for the adjacent developme nt)			

# **Threatened Species Habitat Management Performance Measures**

Manage- ment Zone/s	Manage- ment Action	Performance indicator (e.g. % of Management Zone treated per year, % survival rate of plantings, species abundance, number of nestboxes occupied).	Timing
All	Squirrel Glider (Petaurus norfolcensis)	Confirmation of habitat usage on site to be determined by results of Camera Trap monitoring of 5-yearly surveys. Monitoring to be undertaken in accordance with recommendations in the EMM Operations Manual and as detailed in Section 7.	Annually / 5 years
	Powerful Owl ( <i>Ninox</i> strenua)		
All	Tetratheca juncea	Ecological condition of <i>T. juncea</i> habitat (species polygon) is improving. Monitoring methodology detailed in Section 7. <i>T. juncea</i> counts within VI Plots will be undertaken as per LMCC (2012) <i>Flora and Fauna Survey Guidelines</i> , and following methodology as described by Payne, Stevenson, and Wellington (2002).	5 years  Monitoring surveys to occur in September-October as per TBDC survey guidelines.
All	Nestbox installation	All 64 nest boxes and salvaged hollows installed by a suitably qualified arborist/ ecologist.  Note: The installation of salvaged hollows has been undertaken to satisfy the Conditions of Consent from the adjacent development.	Within six months of first payment
All	Nestbox Monitoring	20% occupancy of nest boxes across the site by arboreal fauna.	Ongoing

# **Section 5: Integrated Feral Pest Management Plan**

### Completing the compulsory Integrated Feral Pest Management Plan

A table is provided below for the integrated feral pest management plan. Add additional fields to the table if required. The plan must include, but is not limited to:

- a description of the target fauna species e.g foxes, cats, pigs, goats, avian pests, horses, other miscellaneous species as relevant
- consideration of relevant current DPIE and other pest management programs
- the methods of feral pest control in each Management Zone determined in accordance with best management practice
- the frequency and timing of pest control actions in each Management Zone
- clear, measurable objectives and performance indicators to demonstrate how the management action will achieve gain on the Biodiversity Stewardship site.

All pest species identified as requiring management on a Biodiversity Stewardship site must be included in the integrated feral pest management plan.

Separate management plans may be developed for each pest species.

When the management plan is reviewed, control activities may be amended, deleted or added to take into account pest species found on the site at that time.

Details of monitoring to assess the effectiveness of Integrated Feral Pest Management activities are to be described in Section 7 – Monitoring Plan and are to include:

- methods for monitoring the success of pest animal control actions
- · reporting and assessing the results from monitoring
- a timetable and measures for inspections to identify new pest species that may negatively impact on Threatened Species on the Biodiversity Stewardship site
- a diary for recording actions taken in accordance with the integrated feral pest management plan
- 1. Feral Pests existing on the Biodiversity Stewardship Site, and their extent or severity of impact, as at the Agreement Date are listed in the table below titled "Feral pests".
- 2. The table below titled "Methods considered" lists possible methods of control of Feral Pests and the suitability of such methods to the Biodiversity Stewardship Site.
- 3. The Owner must control Feral Pests for each Management Zone according to the method and frequency described in the table below titled "Methods of control". The methods of control will apply to the Feral Pests listed in the 'Feral pests' table.
- 4. The Owner should seek advice from Local Land Services on how to effectively and legally implement Feral Pest control prior to commencing any control methods on the Biodiversity Stewardship Site. If any methods advised or recommended by Local Land Services differ from those identified in this Integrated Feral Pest Management Plan, the Owner must advise the NSW BCT in writing prior to commencing control activities.
- 5. The Owner must carry out such activities as are specified (if any) in the table below titled "Other Management Activities".
- 6. The Owner must implement monitoring of existing and new Feral Pests on the Biodiversity Stewardship Site, as described in the Monitoring Plan and with reference to the performance measures specified in the table below titled "Integrated Feral Pest Management Performance Measures".
- 7. The Owner must complete the templates in the Monitoring Plan titled "Diary template for Feral Pest management" and "Template for reporting of monitoring activities Feral Pest management" to record implementation of this Integrated Feral Pest Management Plan and monitoring activities.

Feral Pests							
Pest	Name of Feral Pest	Description of extent/severity of impact	Management Zone/s				
	(e.g. foxes, cats, pigs, goats, avian						

	species)		er miscellaneous		
А	Hare / F	Rabbits		None observed, assumed intermittent presence.	All
В	Cat			None observed, assumed intermittent presence.	All
С	Dog / F	None observed. No active den sites observed. Assumed intermittent presence. In accordance with conditions of consent, on lead dog walking is permissible on walking trails only. Signage at entrance points is to include information regarding these restrictions.			All
D	Feral D	eer / Goa	its / Pigs	None observed, no evidence of activity/herbivory observed, assumed not present.	All
E	Misc., F	Horses, w ck etc.	andering	None observed, no evidence of activity/herbivory observed, assumed not present.	All
Method	s consi	idered			
Pest type	Name and description of program or method  Describe suitability				Describe suitability
А	If required bait with pindone poison in line with Local Land Services (LLS)  Shooting poses lower off target threat to native herbivores and secondary poisoning of higher order predators.				
В	Trap with fresh meat baits free of poison.  Cage trapping is simple and effective over small areas. Shooting is highly specialised and labour intensive.				
С	Bait with 1080 poison in line with Local Land Services (LLS) guidelines.  Baiting most likely to be successful, trapping and shooting pose lower off target threat to native carnivores				
D	Shoot on sight along tracks or where previously observed, or in accordance with local directives from LLS.  Shooting is highly specialised and labour intensive. Not suitable in a highly urbanised setting or on a site extensively used by the public				
Method	s of cor	ntrol			
Management Zone/s		Feral Pest type	Method of cor	ntrol	Frequency and timing

All	A, B & C	Conduct baseline monitoring for the presence of pest vertebrate species utilising baited and unbaited remote motion sensing camera traps within the site over a two-week period.	Base line data to be collected within 6 months of the first payment date, then ongoing monitoring biannually
All	A, B & C	If during routine monitoring, pest species are found at higher abundances than baseline or are impacting on biodiversity values within a specific management zone, additional remote motion sensing cameras should be deployed. Furthermore, monitoring and control frequency should be increased until pest species numbers are observed to have either reached or fallen below baseline abundance in that management zone.	Bi-annually, or quarterly if increased pest species abundances (i.e. from baseline data) are recorded during bi- annual monitoring.
All	В	To date no cats have been recorded within the BSA Lands, however it is assumed that there are present at intermittent numbers. Cage trapping is proposed as it is a simple and effective method over small areas and is deemed more ethical than baiting and shooting in urban environments. The highly urban location and high pedestrian use of the site restricts the use of shooting as a method in this area and therefore is not being considered a method for the site. It is also noted that the method is highly specialised and labour intensive. If during routine monitoring, pest species are found at higher abundances than baseline or are impacting on biodiversity values within a specific management zone, additional remote motion sensing cameras should be deployed. Furthermore, monitoring and control frequency should be increased until pest species numbers are observed to have either reached or fallen below baseline abundance in that management zone. Any cat caught during cage trapping is to be transported to a local veterinarian for microchip identification and returned to the owner. If no microchip is present the animal will be taken to a reputable animal shelter or rescue group.	Upon capture.
All	С	Bait with 1080 poison in line with Local Land Services (LLS) guidelines.	Within 1 month of detection of vertebrate pest species

### Other management activities

A pest control program will be implemented when monitoring detects pest vertebrate species within the site. This program will aim to reduce pest vertebrate numbers and their associated impacts on native biodiversity. Consideration will be given to the presence of domestic animals and returned to the owners where captured. An educational flyer will be developed, and provided to the owners of captured animals, outlining the importance of BSS and the negative impacts pest vertebrate species can have on native biodiversity. The pest control program should be conducted:

- In accordance with NSW Codes of Practice and Standard Operating Procedures for the effective and humane management of pest animals (accessed: https://www.dpi.nsw.gov.au/biosecurity/vertebrate-pests/publications/standard-operating-procedures)
- In accordance with PestSmart Code of Practice (COP) outlining the best practice management for specific pest vertebrate species.
- The Landholder will cooperate with surrounding landholders, LLS, NPWS or other relevant agencies or local groups conducting feral pest management to maximise effectiveness.
- By experienced and suitably qualified personnel.

Four baited motion sensor cameras will be deployed annually for 10 nights, spread evenly across the BSA site. The presence of pest vertebrate species will be recorded.

Community engagement and education through educational flyers and signage outlining importance of BSS, the potential negative impacts pest vertebrate species can have on native biodiversity and the proposed pest vertebrate management actions that will be conducted within the site

• Installation of educational signage throughout the site should be installed at all locations outlined in the Biodiversity Stewardship Site Management Actions Map in year 1. Signs are to be inspected for presence,

condition and maintenance requirements during annual monitoring events. Any signs that are missing or cannot be maintained should be replaced within 3 months.

# Integrated Feral Pest Performance Measures Feral Pest species Performance indicator (e.g. numbers treated/year, level of threat abatement to be achieved, total area to be treated (in hectares)). Dog / Fox Level of activity/sign absent or reduced from baseline data. Cat Level of activity/sign absent or reduced from baseline data. All educational signage is installed throughout the site during year 1. Signs that are missing or cannot be maintained are replaced within three months.

# **Section 6 - Integrated Weed Management Plan**

### Completing the compulsory Integrated Weed Management Plan

A table is provided below for the Integrated Weed Management Plan. Add additional sections to the table if required.

The plan must include, but is not limited to:

- a description of the high threat weeds and other weeds present on the Biodiversity Stewardship Site and their locations, linked to each Management Zone where weeds are present
- the method/s of weed control in each Management Zone
- the frequency of weed control activities at the site, taking into account management practices where weeds are providing habitat for native species
- the timing of any planting of native plant species required in each Management Zone to provide alternative habitat for native species affected by weed control activities

When the management plan is reviewed, weed control activities may be amended, deleted or added to take into account the weed species on the site at the time of the review.

The Integrated Weed Management Plan must contain clear, measurable objectives and performance indicators to demonstrate how the weed management actions will achieve gain on the Biodiversity Stewardship Site.

Details of monitoring to assess the effectiveness of Integrated Weed Management activities are to be described in Section 7 – Monitoring Plan and are to include:

- methods for monitoring the success of integrated weed management
- reporting and assessing the results from monitoring
- a timetable/measures for inspections to identify new weed species
- a diary for recording actions taken in accordance with the Integrated Weed Management Plan
- 1. The weeds present, and their locations, on the Biodiversity Stewardship Site as at the Agreement Date are listed in the table below titled "Weed Species present".
- 2. The permitted methods of control of weeds on the Biodiversity Stewardship Site for each weed type are listed in the table below titled "Methods of Weed control".
- 3. Other Management Actions to control weeds (if any) are specified in the table below titled "Other Weed management activities".
- 4. The Owner must implement the monitoring and inspection of existing and new weeds on the Biodiversity Stewardship Site as described in the Monitoring Plan and with reference to the performance measures listed in the table below titled "Integrated Weed Management Performance Measures".

### Weed species present

	Common name of Weed	Scientifi c name of Weed	High Threat Weed Species (Y/N)	Description of infestation (e.g. intensity [% Projected Foliage Cover (PFC)] & location within zone)	Management Zone/s
A	Lantana	Lantana camara	Y	Low to high density infestations occur throughout all management zones. Highest densities occur within Zone 1 and 3 predominantly within wet sclerophyll/gullies, requiring significant primary control. Higher slopes grading to dry sclerophyll contain low to negligible infestations.	High in Zone 2 and 4. Present in all zones.

				PFC 5-75%	
В	Camphor Laurel	Cinnamo mum camphor a	Y	Low to high density infestations occur throughout the majority of management zones. Highest densities (mature individuals) occur within Zone 1 and 3, predominantly within wet sclerophyll/gullies, requiring significant primary control. Higher slopes grading to dry sclerophyll contain low to negligible infestations.  PFC 1-15%	All
С	Panic Veldtgrass	Ehrharta erecta	Y	Scattered occurrences at low densities, predominantly within Zone 1 and 2. Target during maintenance works.  PFC 0-3%	1, 2
D	Asparagus Fern	Asparagu s aethiopic us	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1, 3
Е	Small- leaved Privet	Ligustru m sinense	Y	High density in Zone 1, will require primary weeding. Target during maintenance works. PFC 0-40%	1
F	Large- leaved Privet	Ligustru m lucidum	Y	High density in Zone 1, will require primary weeding.  Scattered occurrences at low densities throughout Zone 2. Target during maintenance works.  PFC 0-25%	1, 2
G	Ochna	Ochna serrulata	Y	High density in Zone 1, will require primary weeding. Scattered occurrences at low densities throughout Zone 2. Target during maintenance works. PFC 0-10%	1, 2
Н	Flatweed	Hypocha eris radicata		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1, 2
I	Japanese Sacred Bamboo	Nandina domestic a		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1, 2
J	Common Passionfrui t	Passiflor a edulis		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	2
K	Wild Tobacco	Solanum mauritian um		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
L	Black Nightshade	Solanum nigrum		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
М	Buffalo Grass	Stenotap hrum secundat um	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All

N	Bird of Paradise	Strelitzia juncea		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	1
0	Cocos Palm	Syagrus romanzof fiana		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All
Р	Trad	Tradesca ntia fluminens is	Υ	High density occurrence in Zone 1. Primary weeding will be required.  PFC 0-30%	All
Q	Crofton Weed	Ageratina adenoph ora	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	1, 3
R	Indian Hawthorn	Raphiole pis indica		Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
S	Blackberry	Rubus fruticosus	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
Т	Cat's Claw Creeper	Dolichan dra unguis- cati	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
U	Whisky Grass	Andropo gon virginicus	Y	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-5%	All
V	Fishbone fern	Nephrole pis cordifolia		High localised density in Zone 1. Primary weeding will be required.  PFC 0-60%	1
W	All Low abundance or sporadic individual weeds.	N/A	N/A	Scattered occurrences at low densities. Target during maintenance works.  PFC 0-1%	All

Methods of V	Veed control		
Management Zone/s	Weeds	Method of Weed control	Frequency and timing

### Note:

All weed control methods to be in accordance with NSW WeedWise Website and NSW Weed Control Handbook.

Any weed management action will consider known locations of *T. juncea*. Weed control methods are to be limited to the following in areas of known *T. juncea* habitat, subject to target weed species requirements:

- Hand removal
- Gas guns
- Scrape and paint

<ul> <li>Stem</li> </ul>	stump method n injection d wipers		
All	Lantana Camphor Laurel Coral Tree Small- leaved Privet Large- leaved Privet	Primary Weeding.  Undertake primary removal of HTW and other priority weeds (in particular Lantana & Camphor Laurel) from all management zones within areas mapped as moderate to high density.	Year 0 - 1
	Blackberry Cat's Claw Creeper Whisky Grass	Follow-up Primary Weeding.  Undertake follow up primary weeding of HTW from previously treated areas.	Year 1 - 2
All	All	Maintenance Weeding. Undertake ongoing maintenance of HTW and other priority weeds in all management zones, including previous primary treatments, and areas mapped as low density.	Year 3+ - Ongoing Bi- annually
All	Lantana	Manual removal of smaller plants which can be hand pulled and left to dry off the ground.	Primary works within the first
		Cut and paint application of larger plants.	year.
		Large patches can be controlled via foliar application of herbicide during active growing period. Chemical selection to be fit for purpose, i.e. selective where possible to limit off target damage to native vegetation.	Ongoing maintenance bi- annually post- primary works.
		Spraying leaves	Avoid excessively
		Small plants less than 2 m can be sprayed at any time of the year as long as they are actively growing. Stressed plants don't take up much herbicide. Treat regrowth from burning, cutting, slashing or frost when plants are 30 cm to 1 m high. Spray mature lantana (>2 m high) between February and the first frost. Early morning or late afternoon is the best time to spray during Autumn.	hot days or prolonged dry conditions
		Gas or splatter-gun	
		Splatter-guns use small amounts of highly concentrated herbicide. A five-litre bottle of mixed herbicide should cover about 0.2 hectares of lantana. The splatter gun:	
		<ul> <li>works best on dense infestations at least 300 mm high</li> <li>limits off-target plant damage</li> <li>is good for hard-to-access and steep areas</li> <li>can be used year-round if plants are actively growing, but works best during summer</li> <li>is cheaper than traditional foliar spray methods.</li> </ul>	
		Spray before 10 am and after 3 pm when it's cool. Angle the gun at 45 degrees and spray an arc over the top of the plant and down the front face. Apply 2 squirt lines per half a metre of plant height. The amount to apply will depend on the herbicide concentration. Do not spray until herbicide runs off. Do not use the splatter-gun:	
		<ul><li>in wet weather</li><li>when there is water or dew on the plants</li><li>on spindly lantana regrowth.</li></ul>	
		Spraying stems	

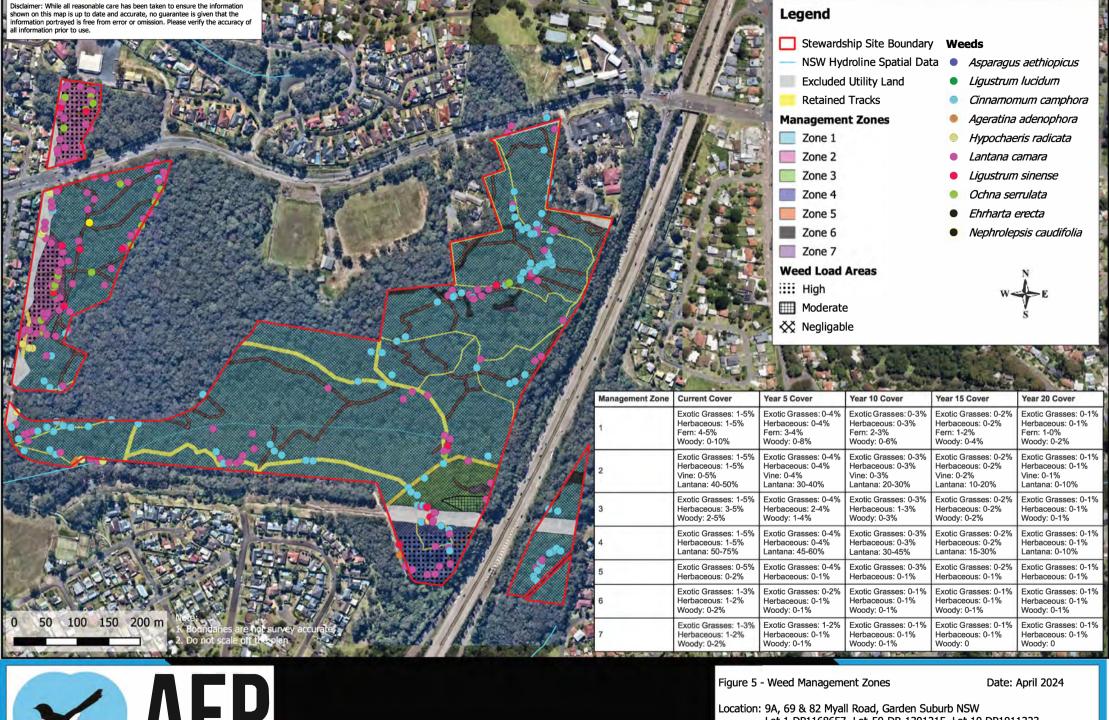
		Applying herbicide to the stems is called 'basal barking'. It's effective at any time of year. Mix herbicide with diesel. Apply around all stems from the ground up to 30 cm high by:  • spraying at low-pressure • painting on with a brush.  Cut stump method  Cut stems off at about 15 cm from the ground. Apply herbicide to the cut surface of the stump within 15 seconds. Treat every cut stem because lantana regrows vigorously from untreated stems.  Weed control effort to initially prioritise Management Zone 1 and 3. Ongoing management in all zones.	
All	Camphor Laurel	Manual removal of small plants where they can be pulled from the soil with roots intact.  Larger individual plants to be treated with cut-stump or 'drill and frill' application.  Chemical control is an effective way of controlling existing infestations. Herbicides can control trees without the need to disturb soil or other vegetation.  In areas to be cleared, prior herbicide control allows easy removal of the dead stumps and hastens the revegetation process.  Effective control of camphor laurel can be achieved by using either the cut stump, stem injection, capsule injection, basal bark or foliar spray application techniques. The method used depends on the site situation, tree size, access and personal preferences.  For large, dense infestations cut trees into manageable pieces and pile in such a manner to prevent regrowth from cuttings. Should occur outside fruiting period to reduce seed dispersal.	Primary works within the first year  Ongoing maintenance biannually postprimary works.  Spring to Autumn when actively growing
All	Small- leaved Privet	Manual removal of small plants where they can be pulled from the soil with roots intact.  Larger individual plants to be treated with cut-stump or 'drill and frill' application.  For large, dense infestations cut trees into manageable pieces and pile in such a manner to prevent regrowth from cuttings. Should occur outside fruiting period to reduce seed dispersal.  Spraying  Spraying is suitable for plants up to 3 m tall and those in dense infestations when there is no risk of spraying desirable vegetation. Spray actively growing plants that are not under any heat or moisture stress. Completely cover all the foliage for successful control.  Splatter gun  Gas or splatter guns apply low volumes of high concentration herbicide to plants 6–10 m away. Add marker dye to help identify treated areas. This method minimises off target damage because only a small number of leaves need to be treated and large sized droplets are used.  Basal barking  Check the label for the maximum treatable diameter as it varies between herbicides (5- 10 cm). Paint or spray the herbicide mix all the way around every trunk and lower stem from the ground up to a height of 30 cm. Wet thoroughly to the point of runoff. Do not apply to wet stems as this can repel the diesel mixture.  Cut stump method	Primary works within the first year Ongoing maintenance bi- annually post- primary works. Spring to Autumn when actively growing

		This method is effective on plants of various sizes. Cut trunks or stems within 15 cm of the ground if possible. Spray or paint on herbicide to the stumps within 15 seconds of cutting. Treat every stump.  Stem injection  This method is suitable for large plants. It is cost effective in terms of labour and volume of herbicide required. Drill or make cuts into the sapwood and fill with herbicide within 15 seconds of making the cut. Treat every stem.  Stem injection with capsules  Capsules are injected into the stem's sapwood and then sealed. Use on actively growing trees.	
All	Large- leaved Privet	Manual removal of small plants where they can be pulled from the soil with roots intact.  Larger individual plants to be treated with cut-stump or 'drill and frill' application.  For large, dense infestations cut trees into manageable pieces and pile in such a manner to prevent regrowth from cuttings. Should occur outside fruiting period to reduce seed dispersal.  Foliar treatments can be made to flushes of seedlings and groups of plants up to 3 m high. Plants should be actively growing, not under heat or moisture stress, and complete coverage of the foliage is necessary to ensure successful control. Foliar treatments are appropriate where infestations contain dense stands of privet and little or no other valuable vegetation.  Basal bark applications are appropriate for treating larger individual plants in amongst other vegetation. Every trunk or stem arising from the ground should be treated.  Stem injection is also appropriate for treating larger individual plants in amongst other vegetation. Stem injection has been found to be the most cost-effective method of control in terms of volume of herbicide and labour costs. It is also most effective in terms of reducing off-target herbicide damage to other vegetation.  Capsule stem injection is also available for privet trees.  Where is it possible or desirable to completely remove whole plants, herbicide treatment of the cut stumps should be carried out in order to prevent regrowth from stumps. Cut-stump application of herbicides is very effective for controlling young plants, suckers or regrowth.	Primary works within the first year  Ongoing maintenance biannually post-primary works.  Spring to Autumn when actively growing
2	Ochna	Dig out small plants (under 20 cm) making sure that all the roots are removed. Do not try to pull out plants as they will break off where the root kinks and the plant will regrow. Dig out small plants and seedlings (under 20 cm tall) if the soil is sandy or soft enough. Remove as much of the roots as possible.  Spot spray individuals below knee height to the point of visible wetness.  Gas gun (Splatter Gun) individuals up to 1m tall by applying a small amount of concentrated herbicide and marker dye to foliage. Apply herbicide mixture in a cross-hatch pattern.  Scrape and paint small plants with thin stems. Scrape the stem exposing the green layer under the bark, starting at the base of the plant and scraping as high as possible, apply herbicide.  Cut stump method is suitable for plants with thick stems. Cut trunks as close as possible to the ground and apply herbicide to the stump within 15 seconds of being cut.	Primary works within the first year. Ongoing maintenance biannually postprimary works.

		Stem injection drill holes around the lower stem of the plant using a 10mm drill bit. Fill holes with herbicide within 15 seconds of drilling. Remove and bag any fruit from the plant and dispose of appropriately	
		Control plants before they fruit (plants take at least three years to produce fruit)	
		Check and follow-up initial control efforts as this weed is very hardy and often re-sprouts.	
2	Trad	Manual removal and destruction of whole plant (small plants).  Weed wipers can be used for Trad growing amongst native plants to avoid off target damage from spray drift.	Primary works within the first year. Ongoing maintenance biannually postprimary works.
1	Fishbone Fern	Manual removal of isolated, small seedlings can be attempted by hand pulling or digging them up. This is only practical for a small number of plants.  Chemical control  Fishbone fern can be spot sprayed. Plants are often hard to kill with herbicides so follow up with inspections and re-treat if necessary.  It is important to remove the whole root system if possible, otherwise the plant can regrow.	Primary works within the first year. Ongoing maintenance biannually postprimary works.
All	Exotic Grasses	Knock back via foliar spraying, Chemical selection to be fit for purpose, i.e. selective where possible to limit off target damage to native forbs/shrubs.	At least 6 months Prior to revegetation, with follow up applications Ongoing maintenance bi- annually post- primary works.

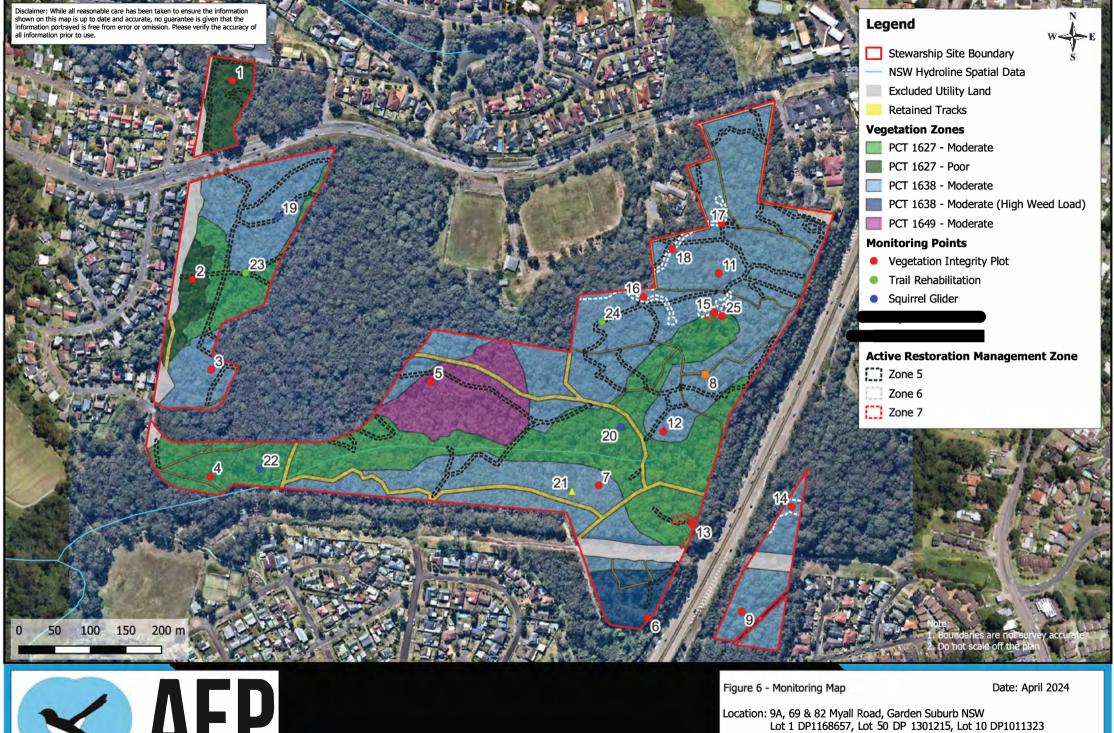
Other Weed I	Other Weed Management Actions			
Management Zone/s	Weeds	Management Action	Frequency and timing	
6	All	Primary and ongoing weeding	<ul> <li>monthly for 12months after initial planting.</li> <li>every 3 months for the 1–5-year period post initial planting.</li> </ul>	
7	All	Primary and ongoing weeding	<ul> <li>monthly for 12months after initial planting.</li> <li>every 3 months for the 1–5-year period post initial planting.</li> </ul>	

Integrated Weed Management Performance Measures			
Management Zone/s	Weeds	Performance indicator (e.g. % of Management Zone treated per year, weed PFC/abundance remaining per Management Zone).	
All	All HTW	HTW foliage cover <1% within moderate to high infestations within the first 3 years.	
All	All	Continual suppression (maintenance weeding) is undertaken to ensure weeds remain absent/supressed within the Stewardship site, following primary removal.	
All	All	Moderate to high HTW infestations removed and replaced with the currently displaced resilient native vegetation community via natural regeneration.	



Lot 1 DP1168657, Lot 50 DP 1301215, Lot 10 DP1011323

Client: Landcom AEP ref: 3043



AEP

Client: Landcom AEP ref: 3043

# **Section 7 - Monitoring Plan**

- 1. The Owner must implement monitoring as described in Section 7A.
- 2. The Owner must complete the diary templates and reports of monitoring activities contained in the more recent of:
  - a) the templates contained in section 7B or;
  - b) the templates published from time to time on the BCT website.

The completed diary templates and reports of monitoring activities relating to a Reporting Period must be submitted with the Annual Report.

	Section	7A – Monitorin	g methods and frequency					
7A.1- Photo Points	(a) The Owner must establish permanent Photo Points at locations specified below within the Biodiversity Stewardship Site and ensure that photographs are taken from each point within 12 months of the Agreement Date and then at least every 12 months thereafter.  (b) The Owner must take photographs according to the specifications below and at the locations listed below.  Locations of Photo Points  Projected coordinate system: [GDA 2020 Zone 56]							
	Photo Point reference number	Northing	Easting					
	1	376086	6353658					
	2	376039	6353411					
	3	376056	6353253					
	4	376055	6353103					
	5	376364	6353236					
	6	376668	6352905					
	7	376600	6353091					
	8	376749	6353246					
	9	376866	6353042					
	11	376768	6353388					
	12	376690	6353167					
	13	376730	6353037					
	14	376870	6353061					
	15	376762	6353333					
	16	376663	6353355					
	17	376772	6353458					
	18	376703	6353422					
	19	376150	6353468					
	20	376631	6353172					

	21	376562	6353	3083						
	22	376124	6353							
	23	376105	6353	3389						
	24	376604	6353	3320						
	25 376773 6353328									
	26-90 Nest box location to be recorded as installed.									
	Note: Photo points will be established at each of the vegetation integrity monitoring plots and weed density locations listed below in table 7A.3  Each photo point will be visited Annually. If necessary, additional photo locations may be added to capture specific management actions or unpredicted changes within the BSS.									
	The photograp	hs must:								
	(i) be taken in all directions (360°) from the Photo Point. (ii) be taken at the same location, with the same starting direction for the commencement and direction of the sweep, with the camera held at the same location, height and angle; (iii) show exactly the same field of view each monitoring event, to									
		able comparison across clear and of suitable res		on to show detail, and taken at						
	ар	appropriate light conditions to display optimal contrast.								
	ref	be dated, and labelled with the corresponding Photo Point reference number.								
	` ,	(vi) retained by the Owner for the duration of the Deed.								
7A.2 - Biodiversity Stewardship Site inspections				te must be undertaken by a aving regard to the purpose, set						
	Site inspectio	n								
	A. Purpose			B. Interval (starting from the Agreement Date)						
	To determine the percentage of Living Ground Cover present on the Biodiversity Stewardship Site for the purposes of grazing Stock in accordance with part 2.1 of section 1 of the Management Plan (if applicable).  To determine the physical condition of fencing and gates and whether they are maintained to a standard that can:  - control the movement of Stock if required under Part 2.2 of Section 1 of the Management Plan  - control human disturbance if required under Part 8 in Section 1 of the Management Plan									
	required	ol the movement of Feral Pests if red under Part 6.1 of Section 1 of the agement Plan								
İ	1									

To determine any human disturbance on the Biodiversity Stewardship Site  Note: Part 8 of section 1 of the Management Plan and clause 4 of this Deed place restrictions on human activities on the Biodiversity Stewardship Site	Every 6 months
To determine the physical condition of access tracks within the Biodiversity Stewardship Site, their navigability and evidence of erosion.	Every 6 months
The Owner must also document any evidence of erosion within other areas of the Biodiversity Stewardship Site.	
Note: Parts 8.2 and 8.9 of Section 1 of the Management Plan contain requirements for erosion control	
To determine the presence of Rubbish on the Biodiversity Stewardship Site	Every 6 months
Note: Part 8.3 and 8.6 of Section 1 of the Management Plan contains requirements for storing and disposing of Rubbish on the Biodiversity Stewardship Site	
Baseline Biodiversity monitoring	Every 5 years
To assess the effectiveness of Threatened Species habitat management actions	Every 12 months or as specified in the Threatened Species Habitat Management Plan
To detect the presence of vertebrate pest species.	Every 12 months

7A.3 - Ecological response monitoring	Permanent ecological response monitoring points (including vegetation integrity survey plots) must be established with the purpose of assessing biodiversity outcomes over time, consistent with the BCT Ecological Monitoring Module (EMM) Operational Manual, as specified below.	
	Note: Area (ha) = Managament Zona	

Managem ent Zone	Monitorin g Point	Target biodiversi ty	MZ Area (ha)	Managem ent intensity	Monitorin g metric(s)	Monitorin g method	Number of points	Eastings	Northings	Monitorin g Frequenc y	Baseline state	Target state
MZ2	1	PCT 1627 - Poor	1.30	Moderate	VIS	Vegetation Integrity Plot	1 (BAM Plot 14)	376086	6353658	5 Years	58.9	81.0
MZ1-6	1-7, 9, 11-18, 25	Tetratheca juncea habitat	26.85	Moderate	VIS  Abundance (Count) within monitoring plots to be undertaken as per LMCC (2012) Flora and Fauna Survey Guidelines, and follow methodology as described by Payne, Stevenson, and Wellington (2002).	Vegetation Integrity Plots	18	376086 376039 376056 376055 376364 376668 376660 376866 376768 376790 376762 376663 376772 376703 376773	6353658 6353411 6353253 6353103 6353236 63532905 6353091 6353042 6353388 6353167 6353037 6353061 6353333 6353355 6353458 6353422 6353328	5 Years	BAM Plot current Vegetation Integrity Score	BAM Plot future Vegetation Integrity Score with Management

MZ2	2	HTW	1.30	Moderate	Abundance (Cover %)	Vegetation Integrity Plot	1 (BAM Plot 7)	376600	6353091	5 Years	75%	0%
MZ1	3	PCT 1638 <sup>V</sup> - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 8)	376056	6353253	5 Years	58.9	79.9
MZ1	4	PCT 1627 - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 9)	376055	6353103	5 Years	58.9	81.0
MZ1	5	PCT 1649 - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 1)	376364	6353236	5 Years	52.4	57.6
MZ4	6	PCT 1638 <sup>V</sup> – Moderate (HWL)	0.85	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 16)	376668	6352905	5 Years	52.8	73.6
MZ1	7	PCT 1638 <sup>V</sup> -Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 2)	376600	6353091	5 Years	58.9	81.0
MZ1	8	Powerful Owl	22.02	Moderate	Presence	Songmeter	1	376749	6353246	5 Years	Species Present	Continued Presence
MZ1	9	PCT 1638 <sup>V</sup> - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1 (New Plot required)	376800	6352914	5 Years	58.9	79.9
MZ1	11	PCT 1638 <sup>V</sup> - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 10)	376800	6353427	5 Years	58.9	79.9
MZ1	12	PCT 1638 <sup>V</sup> - Moderate	22.02	Moderate	VIS	Vegetation Integrity Plot	1(BAM Plot 17)	376690	6353166	5 Years	58.9	79.9

MZ7	13	PCT 1627 – Moderate	0.07	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376730	6353037	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA commence ment.	BAM-C future VIS to be determined from baseline data.
MZ6	14	PCT 1638 <sup>V</sup> - Moderate	0.27	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376870	6353061	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA commence ment.	BAM-C future VIS to be determined from baseline data.
MZ6	15	PCT 1638 <sup>V</sup> · Moderate	0.27	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376762	6353333	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA commence ment.	BAM-C future VIS to be determined from baseline data.
MZ6	16	PCT 1638 <sup>V</sup> - Moderate	0.27	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376663	6353355	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA commence ment.	BAM-C future VIS to be determined from baseline data.
MZ6	17	PCT 1638 <sup>V</sup> - Moderate	0.27	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376772	6353458	5 Years	Baseline VI Plot to be undertaken within 6	BAM-C future VIS to be determined

											months of BSA commence ment.	from baseline data.
MZ6	18	PCT 1638 <sup>V</sup> Moderate	0.27	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376703	6353422	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA commence ment.	BAM-C future VIS to be determined from baseline data.
MZ1	19	Squirrel Glider	22.02	Moderate	Presence	Camera Trap	1	376150	6353468	5 Years	Present	Present
MZ1	20	Squirrel Glider	22.02	Moderate	Presence	Camera Trap	1	376631	6353172	5 Years	Present	Present
MZ1	21	Squirrel Glider	22.02	Moderate	Presence	Camera Trap	1	376562	6353083	5 Years	Present	Present
MZ1	22	Squirrel Glider	22.02	Moderate	Presence	Camera Trap	1	376124	6353114	5 Years	Present	Present
MZ5	23	PCT 1627 - Moderate	1.49	High	Cover	Photo Point	1	376105	6353389	5 Years	<5%	Vegetation cover equivalent to benchmark
MZ5	24	PCT 1638 <sup>V</sup> - Moderate	1.49	High	Cover	Photo Point	1	376604	6353320	5 Years	<5%	Vegetation cover equivalent to benchmark
MZ7	25	PCT 1627 - Moderate	0.07	High	VIS	Vegetation Integrity Plot	1(New Plot required)	376773	6353328	5 Years	Baseline VI Plot to be undertaken within 6 months of BSA	BAM-C future VIS to be determined from

											commence ment.	baseline data.
All	All 64 nest boxes	Native roosting / nesting fauna	-	Low	Occupancy	Camera on pole for photo	64	Location of e and salvage h be recorded u installation.	ollow is to	Annual	No occupancy	20% occupancy

- (i) Zones may be either vegetation zones or species polygons;
- (ii)
- management intensity is defined as per the EMM Operational Manual (i.e. *high* or *moderate*); baseline state is subject to change if new data are collected when active management begins (>2 years after initial BAM assessment); (iii)
- monitoring points may be added to the Biodiversity Stewardship Site Management Actions Map; (iv)

additional monitoring activities should only be specified under Section 7A.4 below if/where they do not replicate those specified above.

7A.4 - Monitoring				nst the performance cy specified below.				
	Monitoring Fire for conservation management							
	Performance Measure	Management Zone/s	_		Timing			
	N/A	N/A No Fire Management Proposed						
	Monitoring Na	ative Vegetatio	n Managem	ent				
	Performance indicator	Management zone(s)	Method of	monitoring	Timing			
	PCTs increasing to reflect benchmark levels  Vegetation cover equivalent to benchmark	All 5	Plots All BSSAR initial base Each plot I with 1500n	ocation to be marked nm star picket with cap.	5 -yearly  Year 1, 5, 10, 15 & 20  From year 21 onwards, plot monitoring should continue at half the frequency (i.e. every 10 years) and half the density (i.e. 50% of plots per zone will be randomly selected for continued monitoring [where only one plot has been allocated to a zone, that plot will continue to be monitored.  Bi-Annually until performance indicator achieved			
	Vegetation cover equivalent to benchmark	6, 7	Photo mon	itoring point.	Monthly Year 0-1 3-monthly Year 2-5 5 -yearly Year 6+			
	Restoration of vegetation condition to benchmark state.	6, 7	Vegetation Plots	Integrity Monitoring	5 -yearly			
	Monitoring 1	Threatened S	pecies Hab	itat Management				
	Performance indicator	Managemen t Zone/s	Threatene d species	Method of monitoring	Timing			
	Increase in population health	All	Tetratheca juncea	Monitoring Point 1-7, 9-18, 25 VI Plots.	5-yearly  Monitoring survey to occur in September-			

(species BSA site is October as per TBDC count) considered to be survey guidelines. suitable T. juncea Habitat habitat. This is due to the variable records (ecological across the site each condition) is year. Some records preserved or show most of the site improved and other show pockets. It has been assumed this is due to rainfall during the winter months, however consistent recorded monitoring should assist in determining why there is annual variation. Section 7A.3 of the Management Plan sets out the criteria that will be used to measure the ecological condition of the Black-eyed Susan habitat. including the metrics; Target biodiversity, Management intensity - 5m transects undertaking a count of the species. T. iuncea counts will be undertaken as per LMCC (2012) Flora and Fauna Survey Guidelines, and follow methodology as described by Payne, Stevenson, and Wellington (2002). Clumps will assume one (1) plant where there is a gap greater than 0.30m and this will be counted as a separated plant. Condition will be recorded by estimating the cover of each plant, visual appearance, such as flowering and colour. Each plant will be numbered for identification in accordance with the associated monitoring point and provide details incl. Eastings and Northings, Monitoring Frequency, Baseline ecological state, and

	ntegrated We	eeu wanag	ement	
Level of feral animal signs is not increasing	All	Fox/Wild Dog	Utilise camera traps as part of baiting program to observe night time activity along tracks or edges.	As required
Level of feral animal signs is not increasing	All	All		Annually 5-yearly
Monitoring In Performance indicator	ntegrated Fe  Managemen t Zone/s	ral Pests N Pest species	lanagement  Method of monitoring	Timing
Salvaged hollow and nestbox occupancy	All	Squirrel Glider Powerful Owl	Nestboxes are to be checked for occupancy and signs of use.  The condition of nestboxes is to be monitored and replacements are to be installed as required.	Annually
Habitat is preserved or improved	All	Squirrel Glider	Deploy baited cameras at locations where Squirrel Gliders previously recorded and den tree (Tree HT207) as identified by Conacher 2013 BDAR.	5-yearly  TBDC survey guidelines indicate survey can occur all year, however each monitoring survey should occur approximately 12 months apart over the monitoring period.
Habitat is preserved or improved	1	Powerful Owl	Deploy song meter and stag watch at nest sites during breeding season.	5-yearly  Monitoring to occur May- June as per TBDC survey guidelines.
	i	i .	state.	i

HTW foliage cover <1% within moderate to high infestations within the first 3 years.	All	All	Vegetation Integrity Monitoring Plot	5 Yearly
HTW's replaced with resilient native vegetation community through natural regeneration.	All	All	Vegetation Integrity Plot monitoring – increase in VIS.	Bi-annually
Continual suppression (maintenance weeding) is undertaken to ensure weeds remain absent/supres sed within the Stewardship site, following primary removal.				

# Section 7B - Templates for reporting monitoring activities Diary template for fire management The Owner must complete this template following any fire event (including prescribed ecological burns, wildfire and arson) within the Biodiversity Stewardship Site. Completed templates must be submitted with the next Annual Report. Completed by: Date of fire: Cause of fire: Management Zone/s affected: Area burnt (hectares) (attach map): Canopy scorched (%): Leaf litter remaining (%): Intensity of fire: Other comments/observations: Template for the reporting of monitoring activities – Integrated Fire management The Owner must complete this template for each Management Zone. The template must be completed each year and submitted with the Annual Report. It is required to be completed by a suitably qualified ecologist or bush regenerator. Completed by: Date:

Diary template for Native Vegetation management
The Owner must complete this template to record the details of any Native Vegetation Management Actions implemented on the Biodiversity Stewardship site.
Completed templates are to be submitted with the next Annual Report.
Completed by:
Date of activity:
Management Zone/s:
<b>Description and type of action undertaken</b> Include details of the Targeted Supplementary Planting, site treatment and other actions.
Assessment of results of management actions (refer to performance measures). Include details of the results of the action and how it could be improved in future
Minor variations from management plan (if any) (Include details and reasons)

T	! <b>- £</b> ! <b>4</b> !	4!!4! NI-4!	Vegetation managem	1
Lambiata for report	INA AT MANITARINA	2011//11/06 - 8/21///	Vadatation manadam	Δnt
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The Owner must complete this template to record the outcomes of Native Vegetation Management Actions implemented on the Biodiversity Stewardship site.

The template must be completed each year and submitted with the Annual Report.

Management Zone/s	Date	Observations and assessment of monitoring against performance measures

Diary Template for the reporting of monitoring activities - threatened species habitat management
The Owner must complete this template to record the details of any Threatened Species Habitat Management Actions implemented on the Biodiversity Stewardship site.
Completed templates are to be submitted with the next Annual Report.
Completed by:
Date of activity:
Management zone/s:
Description and type of management undertaken Include details of the target species and the management activity used.
Assessment of effectiveness of threatened species habitat management action (refer to performance
measures). Include details of the results of the management activity implemented and how it could be improved in future
Minor variations from management plan (if any) (Include details and reasons)

Tamamlata famman		g activities – Threatene	al Cassins Habitat	· Managarana 4
I emplate for ren	Artina at manitarin	n activities 🗕 i nreatene	n Species Habitat	riviananement
i cilipiate for rep		g activities initiations	a opecies i labitat	. Management

The Owner must complete this template to record the outcomes of Threatened Species Habitat Management Actions implemented on the Biodiversity Stewardship site.

The template must be completed each year and submitted with the Annual Report.

Management Zone/s	Date	Observations and assessment of monitoring against performance measures

Diary template for Feral Pest management
The Owner must complete this template to record the details of any Feral Pest management control actions implemented on the Biodiversity Stewardship site.
Completed templates are to be submitted with the next Annual Report.
Completed by:
Date of activity:
Management zone/s:
Description and type of control undertaken Include details of the target species and the control technique used.
Assessment of results of control technique action (refer to performance measures). Include details of the results of the control technique and how it could be improved in future
Minor variations from management plan (if any) (Include details and reasons)

### Template for reporting of monitoring activities – Feral Pest management

The Owner must complete this template to record the outcomes of Feral Pest management control actions implemented on the Biodiversity Stewardship site.

The completed template must be submitted with the next Annual Report.

Manage- ment Zone/s	Date	Current level of impact on vegetation or threatened fauna species  This column must record impact as Negligible, Minimal, Moderate or High	Observations and assessment of monitoring against performance measures

Diary	Template	Integrated	Weed	managemen	t
Diai v	lelliblate	IIIIculateu	VVCCU	IIIaliaucilicii	

This template must be completed to record the details of any Integrated Weed Management actions implemented on the Biodiversity Stewardship site. The template must be completed by a suitably qualified bush regenerator or ecologist on behalf of the Owner.

Completed templates are to be submitted with the next Annual Report.

Completed by:
---------------

Date of activity:

#### Management Zone:

#### Description and type of control undertaken

Provide a summary of all weed control activities undertaken within the previous 12 months. As a minimum, this should include number of person hours worked, methods used, type and quantity of chemical used, approximate area (ha) of primary weed treatment and follow-up weed treatment, and the main weeds that were treated. Attach a map of locations worked.

Assessment of results of control technique action (re weed control activities and how they could be improved in future performance measures for the management zone.	fer to performance measures). Include details of the results of Assess effectiveness through evaluation against the relevant
Minor variations from management plan (if any) (Include	de details and reasons)
Template for the reporting of monitoring	g activities – integrated weed management
Template for the reporting of monitorin  This template must be completed annually for each Managemen	
	t Zone by a suitably qualified bush regenerator or ecologist.
This template must be completed annually for each Managemen	t Zone by a suitably qualified bush regenerator or ecologist.
This template must be completed annually for each Managemen  The completed template must be submitted with the next Annual	t Zone by a suitably qualified bush regenerator or ecologist.
This template must be completed annually for each Managemen The completed template must be submitted with the next Annual  Management Zone:	t Zone by a suitably qualified bush regenerator or ecologist.  Report.
This template must be completed annually for each Managemen The completed template must be submitted with the next Annual  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the management.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person
This template must be completed annually for each Managemen The completed template must be submitted with the next Annual  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the management.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up
This template must be completed annually for each Management.  The completed template must be submitted with the next Annual.  Management Zone:  Completed by:  Weed control summary  Provide a summary and review of all weed control activities under evaluation against the relevant performance measures for the month ours worked, methods used, type and quantity of chemical used.	t Zone by a suitably qualified bush regenerator or ecologist.  Report.  Date:  ertaken within the previous 12 months and their effectiveness through an agement zone. As a minimum, this should include number of person d, approximate area (ha) of primary weed treatment and follow-up

Description and recommendations for remaining weed infestations				
Provide a summary of the type and density of the main weeds that remain in the Management Zone, their location (mark on a map if necessary), and describe the recommended techniques for controlling these weeds.				
Condition  Record each of the following condition			e or frequent when asse	ssed across the part of
the management zone where active in	egrated weed manageme	ent has commenced		
	Absent	Occasional	Moderate	Frequent
Regeneration of native canopy species				
Regeneration of native shrubs				
Regeneration of native groundcovers				
Dieback of native species				
Erosion				
Comments on condition				
Provide any additional comments on the planting or erosion control is required of	e condition of the Manag or has occurred (mark on	ement Zone, including r a map where necessary	reference to areas where	supplementary

## **Annual Reporting Template**

Biodiversity Stewardship Site Annual Report					
Location details					
Biodiversity Stewardship Agreement ID:			Name of Owner/s:		
Reporting period:			Property address:		
Management action	Required completion time and frequency	Action completed (Yes/No)	Actual completion date/s	Description of actions undertaken (including where undertaken (including reference to Management Zones), any variations and the reasons for variation)	Visual observations and other comments (including reasons for non-completion)
1 Management of fire for conservation					
2 Management of grazing for conservation					
3 Native vegetation management					
4 Threatened species habitat management					
5 Hydrology management					
6 Integrated feral pest management					
7 Integrated weed management					
8 Management of human disturbance					
9 Monitoring					

Rec	ords submitted with this report
☐ Photographs taken at the Photo Point locations specified in the M	Management Plan in the Biodiversity Stewardship Agreement
□ Results of any monitoring, inspections or surveys required to be conducted under the Biodiversity Stewardship Agreement. This should include all completed diary templates and completed templates for the reporting of monitoring activities.	
Signature and certification	
I hereby declare that the information supplied in this report is accurate	e and complies with the reporting requirements under the Biodiversity Stewardship Agreement
Note: If the land that forms the Biodiversity Stewardship Site is owner	d by multiple persons, each Owner must sign this Annual Report
Signed:	Signed:
Date:	Date:

## Attachment 5: Dictionary

In this Deed, unless a contrary intention appears, a capitalised word or words has the meaning given in the corresponding row in the table below:

Note: Definitions used only within the Management Plan are defined within the Management Plan and are not defined in this Dictionary

Word/s	Meaning
Aboriginal Objects	The same meaning that "Aboriginal objects" has in the NPW Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "Aboriginal object means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains"
Aboriginal Places	The same meaning that "Aboriginal places" has in the NPW Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "Aboriginal place means any place declared to be an Aboriginal place under section 84" of the NPW Act
Accredited Person	The meaning given to it in section 1.6 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meant a person accredited to prepare biodiversity assessment reports in accordance with the Biodiversity Assessment Method, under the scheme for the accreditation that is prepared in draft by the Environment Agency Head and published by the Minister on the NSW legislation website
Agreement Date	The date on which the last party executes the Deed, being the date set out in Error! Reference source not found.
Annual Contribution	The annual contribution payable in relation to the Biodiversity Stewardship Site, determined in accordance with clause 6.27 of the Biodiversity Conservation Regulations
Annual Report	An annual report for each Reporting Period in the form of, and attaching the information and documents required by, the Annual Reporting Template

Word/s	Meaning
Annual Reporting Template	The form entitled "Annual Reporting Template" which has been available to the Owner by whichever is the most recent of the following:  — as attached to this Deed in
	Attachment 4  - on the NSW BCT website  - as supplied to the Owner by the Minister's Representative from time to time
Assessment Date	The date on which the assessment for the preparation of the Site Assessment Report commenced
Attachment	A numbered attachment at the end of this Deed
Authorised Entrant	Any one or more of the following:  - the Minister  - the Minister's Representative  - the Environment Agency Head  - an officer of DPIE or the NSW BCT  - any other person that the Minister, the Environment Agency Head or an officer of DPIE or the NSW BCT requests the Owner to allow onto the Land to carry out Research and/or Monitoring where the Owner has consented to such request (such consent not to be unreasonably withheld or delayed)
Authorised Officer	A person who is appointed as an authorised officer under Part 12 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date, the Environment Agency Head may appoint any person (including a class of persons) as an authorised officer
Authority	Any federal, state or local government authority, body or department having jurisdiction in relation to the Premises or this Deed and includes any governmental or semi-governmental or local governmental authority, administrative or judicial body or tribunal, department, commission, public authority, agency, minister, statutory corporation or instrumentality

Word/s	Meaning
Biodiversity	The meaning given to it in section 1.5 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "the variety of living animal and plant life from all sources, and includes diversity within and between species and diversity of ecosystems"
Biodiversity Assessment Method	The method established under section 6.7 of the Biodiversity Conservation Act
Biodiversity Conservation Act	The Biodiversity Conservation Act 2016 (NSW) and any regulations from time to time in force under that Act
Biodiversity Conservation Regulations	The Biodiversity Conservation Regulation 2017 (NSW)
Biodiversity Credit	A biodiversity credit created under this Deed
Biodiversity Stewardship Payments Fund	The fund established under Part 6 of the Biodiversity Conservation Act to hold funds from the transfer or retirement of Biodiversity Credits, and other funds
Biodiversity Stewardship Site	The area described in Error! R eference source not found. beside the words "Biodiversity Stewardship Site"

Word/s	Meaning		
Biodiversity Values	The meaning given to it in section 1.5 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "- vegetation integrity—being the degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state, - habitat suitability—being the degree to which the habitat needs of threatened species are present at a particular site, - threatened species abundance—being the occurrence and abundance of threatened species or threatened ecological communities, or their habitat, at a particular site, - vegetation abundance—being the occurrence and abundance of vegetation at a particular site, - habitat connectivity—being the degree to which a particular site connects different areas of habitat of threatened species to facilitate the movement of those species across their range, - threatened species movement—being the degree to which a particular site contributes to the movement of threatened species to maintain their lifecycle, - flight path integrity—being the degree to which the flight paths of protected animals over a particular site are free from interference, - water sustainability—being the degree to which water quality, water bodies and hydrological processes sustain threatened species and threatened ecological communities at a particular site"		
Business Day	A day that is not:  - a Saturday, Sunday, public holiday or bank holiday in Sydney, Australia; or  - 24, 27, 28, 29, 30 or 31 of December		
Claim	Any claim, damage, demand, liability, Cost, loss, suit, proceeding (whether actual or potential), right of action and claim for compensation		
Cost	Any cost, expense, charge, payment, outgoing, loss or other expenditure of any nature whether direct, indirect or consequential and whether accrued or paid and includes legal costs and expenses on whichever is the higher of a full indemnity basis or solicitor and own client basis		

Word/s	Mooning
CPI	Meaning  The Consumer Price Index All Groups number relating to Sydney published from time to time by the Australian Bureau of Statistics (or if that index ceases to be published then such other index which is, in the reasonable opinion of the Minister, a similar index which reflects changes in the cost of living in Sydney at the relevant time)
Deed	This deed and includes any attachments, annexures or schedules attached to this deed
Development	The meaning given to it in section 1.6 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was:  "(a) the use of land, and (b) the subdivision of land, and (c) the erection of a building, and (d) the carrying out of a work, and (e) the demolition of a building or work, and (f) any other act, matter or thing referred to in section 26 of the Environmental Planning and Assessment Act 1979 (NSW) that is controlled by an environmental planning instrument, but does not include the demolition of a temporary structure"
Dictionary	This Attachment 5 and includes any replacement or updated component of such Attachment from time to time
Disclosure Information	The information contained in this Deed, including a copy of the Deed and details of the location of the Land and Management Actions and Management Payments under this Deed
Dispute	A dispute, difference or claim in connection with this Deed (but excluding any dispute, difference or claim in connection with clause Error! R eference source not found.)
Dispute Notice	A notice setting out:  — the nature, or subject matter, of the Dispute, including a summary of any efforts made to resolve other than in accordance with the Dispute Resolution Process;  — the identity of any other person centrally involved in the Dispute;  — the intent to invoke the Dispute Resolution Process; and  — (if practicable) the outcomes which the notifying party wishes to achieve
Dispute Resolution Process	The process set out in clauses Error! R eference source not found. and Error! Reference source not found.
DPIE	The Department of Planning, Industry and Environment

Word/s	Meaning	
Environment Agency Head	The meaning given to it in section 1.6 of the Biodiversity Conservation Act	
	Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "the Secretary of the Department of Planning, Industry and Environment"	
First Payment Date	The date of the first occasion when the balance in the Relevant Account is equal to or greater than 100% of the Total Fund Deposit	
Force Majeure Event	An event that is beyond the reasonable control of the Owner, including any natural disaster, fire, flood, accident, war, riot, act of terrorism, biohazard, a serious epidemic, or a change in legislation, but only to the extent that such events were beyond the Owner's reasonable control. A force majeure event does not however include any obligation to pay money, a labour dispute or shortage of materials or labour	
Formal Review	A review conducted by an Accredited Person or by an appropriately qualified person to consider the efficacy of the Management Plan, including the Management Actions, and any amendments to the Management Plan that the reviewer considers appropriate to ensure the conservation of Biodiversity and of Biodiversity Values on the Biodiversity Stewardship Site and a written report summarising the findings of that review	
Fund Manager	The person appointed from time to time under Part 6 of the Biodiversity Conservation Act as the "fund manager" in respect of the Biodiversity Stewardship Payments Fund, and who, as at the Agreement Date, is the person listed in Error! Reference source not found.	
Funding Acknowledgement Guidelines	The Funding Acknowledgement Guidelines for recipients of NSW Government infrastructure grants published by the NSW Government and as updated from time to time	
GST Act	A New Tax System (Goods and Services Tax) Act 1999 (Cth).  The expressions "GST", "Input Tax Credit", "Recipient", "Supply", "Tax Invoice" and "Taxable Supply" have the meanings given to those expressions in the GST Act and "Supplier" means the party who made the Taxable Supply	

Word/s	Meaning	
Identified Legal Requirements	Any one or more of the requirements listed below:  - under the Biosecurity Act 2015 (NSW): + an emergency order under section 44; + a control order under section 62; + a requirement to assist an authorised officer under section 103; or + a biosecurity direction under section 128; + a weed control notice issued under and prior to the repeal of the Noxious Weeds Act 1993 (NSW); - under the Local Land Services Act 2013 (NSW): + a pest control order under section 130, + an eradication order under section 144, + a requirement for destruction of pests under section 152, or + a requirement to assist an authorised officer under section 179 + a direction under section 37A of the State Emergency and Rescue Management Act 1989 (NSW) in relation to a state of emergency or a direction under section 22A of that Act, under the Rural Fires Act 1997 (NSW): + any notified steps under section 63, + a direction under section 45 for the prevention, control or suppression of any bush fire, + a bush fire hazard reduction notice under section 66, + an emergency fire fighting act within the meaning of that Act, + emergency bush fire hazard reduction work within the meaning of that Act, + otherwise as part of any managed bushfire hazard reduction work within the meaning of that Act, + otherwise as part of any managed bushfire hazard reduction work within the meaning of that Act, + otherwise as part of any managed bushfire hazard reduction work that is carried out in accordance with a current bushfire hazard reduction certificate that applies to the work or the provisions of any bushfire code applying to the land	
Item	A numbered item in the terms schedule at the beginning of this Deed	
Land	The land described in Error! R eference source not found. beside the word "Land"	
Law	The common law, any requirement of any rule, statute, proclamation, regulation, ordinance or by-law, present or future, and whether state, federal or otherwise and the requirements of any Authority	

Word/s	Meaning
Management Action	An obligation to act or an obligation to refrain from doing something set out in section 1-7 of the Management Plan
Management Payments	A payment to be made to the Owner in accordance with clause Error! R eference source not found.
Management Plan	The management plan attached to this Deed in Attachment 4 and includes any replacement or updated component of such Attachment from time to time
Management Zone	An area of a given vegetation zone within the Biodiversity Stewardship Site subject to the same regime of management identified as a management zone on the map immediately below the words "Property Management Actions" included in the Management Plan
Minister's Representative	The person nominated by the Minister to be his or her representative from time to time and who, as at the Agreement Date, is the person set out in Error! Reference source not found.
Monitoring	Observing and making records (in any form) of any one or more of the following:  - the status of and changes to Biodiversity and Biodiversity Values  - the success of the Management Plan in improving Biodiversity  - compliance by the Owner with this Deed and the Biodiversity Conservation Act
Native Plant	The meaning given to it in section 5 of the NPW Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "native plant means any tree, shrub, fern, creeper, vine, palm or plant that is native to Australia, and includes the flower and any other part thereof"
Native Vegetation	The meaning given to it in section 1.6 of the Biodiversity Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meant any plants (including trees, saplings, shrubs, scrub, groundcover) native to New South Wales (ie established in New South Wales before European settlement)
New Owner	Any transferee, assignee or novatee of part or all of the Owner's interest under this Deed, including by way of a sale of the Land, or any part of the Land

Word/s	Meaning
Nominated Bank Account	The bank account nominated by the Owner in accordance with clause Error! Reference source not found. or as updated from time to time in accordance with clause Error! Reference source not found.
Note	Any indented or italicised text in this point 8 font and prefaced by the word "Note:"
Notice Address	The address set out in Error! R eference source not found., Error! Reference source not found. Error! Reference source not found. or Error! Reference source not found. b eside the words "Address for service of notices" for the party to whom the notice is to be given
Notified Occupant	Any Occupant that the Minister is aware of because the Owner has provided the notification required under clause Error! Reference source not found.
NPW Act	The National Parks and Wildlife Act 1974 (NSW) and any regulations from time to time in force under that Act
NSW BCT	The Biodiversity Conservation Trust of New South Wales established under the Biodiversity Conservation Act
Occupancy Agreement	Any lease or licence or other agreement which permits entry to or occupancy of any part of the Land (including the Biodiversity Stewardship Site)
Occupant	Any person who occupies any part of the Land pursuant to an Occupancy Agreement (but does not include an Owner)
Ongoing	In relation to the timing of carrying out a Management Action means commencing on the Agreement Date or First Payment Date (as indicated) and continuing in perpetuity, unless specified otherwise
Operational Deficit	The meaning given to it in the Biodiversity Conservation Regulations
	Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meant the balance of the biodiversity stewardship site account is less than the total present value of all scheduled management payments in respect of the biodiversity stewardship site for the period starting from the most recent anniversary of the date on which the biodiversity stewardship agreement was entered into and extending to perpetuity.

Word/s	Meaning
Operational Deficit Threshold	The meaning given to it in the Biodiversity Conservation Regulations  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meant:  (a) 20% of the total present value of all scheduled management payments in respect of the biodiversity stewardship site for the period starting from the most recent anniversary of the date on which the biodiversity stewardship agreement was entered into and extending to perpetuity, or  (b) such other amount as the Minister determines, having regard
Owner	to the advice of the Fund Manager  The person described as "Owner" at Part A at the beginning of this Deed, any successor or assign under clause Error! Reference source not found. a nd any person who is an "owner" within the meaning given to that term in section 1.6 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was that owner of land
	includes:  (a) every person who, either at law or in equity:  (i) is entitled to the land for any estate of freehold in possession, or (ii) is a person to whom the Crown has lawfully contracted to sell the land under the Crown Lands Act 1989 (NSW) or any other Act relating to the alienation of lands of the Crown, or (iii) is entitled to receive, or is in receipt of, or if the land were let to a tenant would be entitled to receive, the rents and profits in respect of the land, whether as beneficial owner, trustee, mortgagee in possession or otherwise, and
	(b) a person who leases land under the Crown Lands Act 1989, the Crown Lands (Continued Tenures) Act 1989 (NSW) or the Western Lands Act 1901 (NSW), and  (c) any other person who, under the regulations, is taken to be the owner of the land,  but (unless the regulations otherwise provide) does not include a beneficiary of a trust relating to the land

Word/s	Meaning	
Owner Associate	Any representative, servant, contractor, consultant, agent, lessee, licensee or invitee of the Owner	
Ownership Change Date	The date that the Minister's Representative is notified of a change in Owner of the Land	
Payment Amount	Each amount set out in, or calculated in accordance with, the Payment Tables for a Payment Year, increased in accordance with the method set out in clause Error! Reference source n ot found.	
Payment Tables	The tables in Error! Reference s ource not found. and Error! Reference source not found.	
Payment Year	Each 12 month period:  - commencing on the First Payment Date; and - each yearly anniversary of the First Payment Date	
Permitted Exception	An activity specified in the table in Error! Reference source not found., p rovided it is carried out in accordance with the requirements within that table, and only in the Management Zones for which the activity is permitted	
Protected Animal	The same meaning that it has in section 1.6 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning was "an animal of a species listed or referred to in Schedule 5 of the Biodiversity Conservation Act" and "animal means any animal, whether vertebrate or invertebrate and in any stage of biological development, but does not include:  (a) humans, or  (b) fish within the meaning of the Fisheries Management Act 1994 (NSW)"	
Protected Person	Each and all of the following:  the Minister  the Minister's Representative  the Environment Agency Head  the employees or officers of DPIE  the NSW BCT  the members and committees of the Board of the NSW BCT  the employees and officers of the NSW BCT  any other person acting under the delegation, direction or control of the Minister, the Minister's Representative, the Environment Agency Head or the NSW BCT for any purpose  the Crown in right of the State of New South Wales	

Word/s	Meaning	
Registration	Registration of this Deed, or the variation or termination of this Deed, in the Register kept under the <i>Real Property Act 1900</i> (NSW) and includes, where the context allows, an application to register this Deed and "Register" has a corresponding meaning	
Registration Date	The date on which the Minister receives notification from the Registrar-General that this Deed has been registered under Section 5.12 of the Biodiversity Conservation Act	
Relevant Account	The biodiversity stewardship site account within the Biodiversity Stewardship Payments Fund kept by the Fund Manager in accordance with the Biodiversity Conservation Regulations	
Reporting Obligations	The reporting and record keeping requirements as set out in Attachment Error! Reference source not found.	
Reporting Period	Each of the following:  - prior to the First Payment Date: + the 12 month period commencing on the Agreement Date; and + each subsequent 12 month period commencing on each anniversary of the Agreement Date  - on and from the First Payment Date: + the 12 month period commencing on such First Payment Date; and + each subsequent 12 month period commencing on each anniversary of the First Payment Date	
Research	The investigation into and study of facts relating to Biodiversity and Biodiversity Values, and the conservation of Biodiversity and Biodiversity Values	
Review Date	<ul> <li>Until the first Ownership Change Date, each 5th anniversary of the Agreement Date</li> <li>On and after the Ownership Change Date, on the Ownership Change Date and each 5th anniversary of the Ownership Change Date</li> </ul>	
Sell	To sell, transfer, gift, assign or otherwise dispose of and "Sale" has a corresponding meaning	
Site Assessment Report	The report described in Error! R eference source not found.	
Site Sketch Plan	A plan in registrable form which is part of this Deed showing the boundaries of the Biodiversity Stewardship Site, but not a deposited plan or subdivision plan which is separate to this Deed	

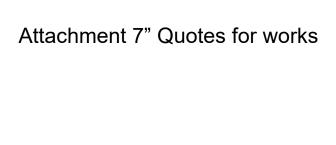
Word/s	Meaning	
Site Splitting	A gifting or transfer of part only of the Land, including a Subdivision in preparation for such a gift or transfer  Note: For example, if the Owner wanted the Owner's children to each own part of the Land	
Special Conditions	The terms and conditions set out in Error! Reference source not found.	
Standard Provisions	Clauses Error! Reference source not f ound. to Error! Reference source not found. of this Deed, and this Dictionary	
Subdivide	To physically or legally (or both) split or separate the Land into portions or to make any application to an Authority for such a split or separation	
Templates	The Templates available on the NSW BCT website	
Threatened Ecological Community	Vegetation communities that are:  - known to occur within the Conservation Area and specified as a threatened ecological community in the Site Values Report; or - listed in Schedule 2 to the Biodiversity Conservation Act; or - listed in accordance with the Environment Protection and Biodiversity Conservation Act 1999 (Cth)	
Threatened Species	The same meaning as in section 1.6 of the Biodiversity Conservation Act  Note: This definition may change from time to time with changes in Law, but on the Agreement Date a list of threatened species was available at <a href="https://www.legislation.nsw.gov.au/#/view/act/2016/63/sch1">https://www.legislation.nsw.gov.au/#/view/act/2016/63/sch1</a>	

Word/s	Meaning
Total Fund Deposit	The meaning given to it in section 6.21(7) of the Biodiversity Conservation Act and for this Biodiversity Stewardship Site is the amount specified in Error! Reference source not found.
	Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meant, for a site, an amount determined (subject to the regulations) by the Environment Agency Head as the present value of the total of all scheduled management payments in respect of the site (under the biodiversity stewardship agreement) during the life of the agreement. The present value is to be determined by applying the discount rate determined and published by the Environment Agency Head from time to time.
Waste	The meaning given to it in the Protection of the Environment Operations Act 1997 (NSW)
	Note: This definition may change from time to time with changes in Law, but on the Agreement Date this meaning included:
	<ul> <li>(a) any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment, or</li> </ul>
	(b) any discarded, rejected, unwanted, surplus or abandoned substance, or
	(c) any otherwise discarded, rejected, unwanted, surplus or abandoned substance intended for sale or for recycling, processing, recovery or purification by a separate operation from that which produced the substance, or
	(d) any processed, recycled, re- used or recovered substance produced wholly or partly from waste that is applied to land, or used as fuel, but only in the circumstances prescribed by the regulations, or
	(e) any substance prescribed by the regulations to be waste.
	A substance is not precluded from being waste merely because it is or may be processed, recycled, reused or recovered

# Attachment 6: Reference Papers

Payne, R. J., Stevenson, D. A., & Wellington, R. (2002). A standardised method for counting Black-Eyed Susan populations. Unpublished technical note.

Economos, R. (2012) Flora and Fauna Survey Guidelines. Lake Macquarie City Council.





# Appendix E - CVs



## The reporting for the VMP was undertaken by:

Staff	Title/Qualification	Tasks
Craig Anderson	Managing Director BAppSc(EAM)	Report Approval, Technical advice
Natalie Black	Senior Environmental Manager BSc (Hons), Master Planning, Cert IV (TA) BAAS: 19076	Reporting, review and accredited assessor for BSA.
Kelly Drysdale	Ecology Project Manager Ass Dip App Sc, Grad Cert BA, TAE	Project Manager, Technical review, contributing author
Yann Buissiere	Senior Ecologist Bres&EnvMgmt, Dip ConsLandMgmt	Report Review
Matt Booker	Ecologist BEnvScMgt	Reporting



EPBC Management Plan Guidelines Checklist	
Guideline Topic	VMP Addressed
Cover page and declaration of accuracy	Cover page and page (pg) i
Cover page detailing:	
• EPBC number	
• project name	
• proponent /approval holder and ACN or ABN	
the proposed/approved action	
location of the action	
• date of preparation of the environmental	
management plan	
• person accepting responsibility for the environmental management plan – signed declaration (see below).	
Document version control	Pg i
Table of contents	Pg ii-iv
Table of contents page detailing:	
all section headings and page numbers	
• all figures, tables, plans and maps (should be numbered)	
• all appendixes (with meaningful titles, including for	
sub-appendixes if any). If the appendixes contain a collation of data, include summary of the contents.	
•	Section 1
Executive summary or introduction	
Conditions of approval reference table	Section 1.2
Project Description	Section 2.1
Objectives	Section 2.1
Environmental management roles and responsibilities	Section 2.2
Reporting	Section 4.9 and 5.5
Environmental training	Section 4.2
Emergency contacts and procedures	Section 4.2.1
Potential environmental impacts and risks	Section 4 and 5
Environmental management measures	Section 5.5 – 5.6.1
Audit and review	Section 5.8
Glossary	Pg v-viii
Evaluating risk	5.7
Each page of the environmental management plan should include the name of the project, the date of the environmental management plan and sequential page numbering.	Each pg contain the information as requested.
General requirements	Updated figures