

EGLINTON ESTATES

COMPLIANCE REPORT (EPBC 2010/5777) 4 NOVEMBER 2018 TO 3 NOVEMBER 2019

Prepared for: Eglinton Estates Pty Ltd

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Report No. 2019-489

The logo for pgv ENVIRONMENTAL is located at the bottom of the page. It features the letters 'pgv' in a large, bold, white sans-serif font. To the right of 'pgv', the word 'ENVIRONMENTAL' is written in a smaller, all-caps, white sans-serif font. The background of the logo area is a solid orange color with a subtle, wavy, textured pattern.

pgv
ENVIRONMENTAL

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1 INTRODUCTION

1.1 Background

The Eglinton Estates Pty Ltd (Eglinton Estates) landholding is located 45km north west of the Perth Central Business District (Figure 1). The landholding is being developed in accordance with a Local Structure Plan approved by the Western Australian Planning Commission.

In December 2010, the eastern portion of the Eglinton Local Structure Plan Area was referred to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) (now known as the Department of the Environment and Energy) for approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). In January 2011, the proposal (EPBC 2010/5777) was deemed a controlled action under the EPBC Act, requiring assessment and approval under that Act. The controlling provisions were identified as Listed Threatened Species and Communities (Sections 18 and 18a).

On 30 April 2013 the Minister for the Environment approved the clearing of approximately 298ha of native vegetation for the urban development of Lot 1007 and the eastern portion of Lot 1008 Pipidinnny Road, Eglinton, WA (Attachment 2). The approval was subject to 15 conditions relating to the action undertaken at Eglinton. The Graceful Sun-moth conservation status was downgraded in June 2013 and the DoEE issued a variation on the approval removing the conditions related to the Graceful Sun-moth (Attachment 3).

Eglinton Estates requested a variation to the approval conditions 12 and 13 in correspondence dated 25 May 2015. The variation was approved by the DoEE in accordance with the provisions of the EPBC Act on 20 October 2015 (Attachment 4). The original conditions 12 and 13 were replaced with new conditions.

Eglinton Estates is the approval Holder of the EPBC Act approval (EPBC 2010/5777). The company that has taken action on behalf of the proponent to date is Stockland WA Developments Pty Ltd (Stockland). The Public Transit Authority (PTA) has undertaken some preliminary works in the Yanchep Rail Extension Corridor and in the vicinity of the future Eglinton Station both of which are in the Proposal Site.

Woodsome Management Pty Ltd is the overall project manager for the Eglinton Project and is authorised on behalf of the proponent (Eglinton) to submit the Compliance Assessment Report and the Declaration of Accuracy.

1.2 Purpose of this document

This report has been prepared to satisfy Condition 3 of the EPBC 2010/5777 approval which requires the preparation of an annual Compliance Report. The reports provide an update on the progress of the project actions including conditions that have been fulfilled and conditions that remain ongoing.

1.3 Reporting Period

The reporting period is dated from 4 November 2018 to 3 November 2019. This Compliance Report will be made available to the public within 3 months of the reporting period (4 February 2019).

This report was prepared in December 2019 and is the sixth Compliance Report.

1.4 Revisions to Terminology

The following revisions to terminology have been provided:

- The WA Department of Parks and Wildlife (DPaW) is now known as the Department of Biodiversity, Conservation and Attractions (DBCA);
- The WA Office of the Environmental Protection Authority (OEPA) is now known as the EPA Services - Department of Water and Environmental Regulation (DWER);
- The area under development at Eglinton is known as 'Amberton';
The area referred to POS Area AA in Attachment A of the EPBC 2010/5777 approval notice is also referred to as POS 7

1.5 Key Dates

The following key dates have been provided:

- EPBC Approval Date – approved 30 April 2013 (Attachment 2);
- Variation to Approval Conditions – approved 17 July 2013 (Attachment 3);
- Commenced action - 4 November 2013;
- Commenced clearing in CBC habitat – 9 January 2014 (see Plate 1 Landgate Aerial Photography dated 29 January 2014);
- Condition 12 Clearing Revegetation Management Plan (CRMP) – approved 8 November 2013;
- Condition 10 Conservation Management Plan – approved 23 July 2014;
- First EPBC Compliance Report submitted to the Department - 10 December 2014;
- Variation to Approval Conditions 12 and 13 - approved 20 October 2015 (Attachment 4);
- Revised CRMP lodged with the Department - 22 December 2015;
- Funds have been provided to the DPaW for the purchase of an additional offset site in accordance with Condition 13 - 21 January 2016;
- 2016 Compliance Report was approved by the Department on the 25 February 2016;
- CRMP was approved by the Department on 9 May 2016;
- The Eglinton Local Structure Plan (LSP) Amendment 1 was approved by the Western Australian Planning Commission on 17 November 2017. The amendment recognises the EPBC Conservation Areas;
- 2017 Compliance Report was approved by the Department on the 29 June 2018;
- Variation to Approval Condition 10(b) approved 25 October 2018 (Attachment 6)
- 2019 Compliance Report was received by the Department on the 5 February 2019;
- Revisions to the Conservation Management Plan and Clearing and Revegetation Management Plan – approved by the Department on 5 June 2019 (Attachment 7);

- Section 143 to change the conservation POS area AG (conditions 9, 11, 12, 14, Attachments A, B and Attachment D) – approved by the Department 17 June 2019 (Attachment 7); and
- Lot 5001 purchased by Peet in February 2019 (entity is Peet 2018 No.1 Pty Ltd), EPBC approval over Lot 5001 has remained with Eglinton Estates.

1.6 Declaration of Accuracy

The declaration of accuracy is provided at Attachment 1.



Plate 1: Landgate Aerial Photography dated 29 January 2014

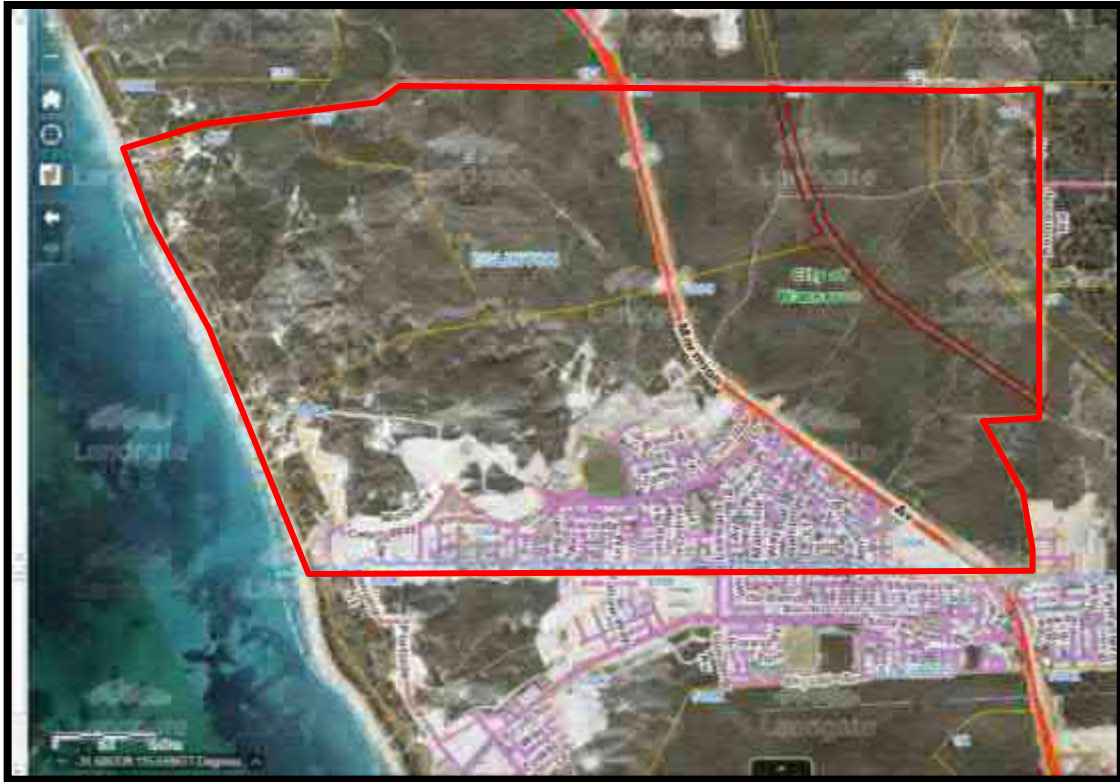


Plate 2: Landgate Aerial Photography dated August 2019

2 REVISIONS TO CONDITIONS OF APPROVAL AND MANAGEMENT PLANS

2.1 Variation Request Sale of Super Lot 5001

Eglinton Estates has sold Lot 5001 that is in the EPBC Referral Area to Peet (entity is Peet 2018 No.1 Pty Ltd). A section 143 was submitted to the DoEE on 28 September 2018 to vary the EPBC 2010/5777 conditions to reflect the change in ownership and Approval Holder for Lot 5001. Based on advice from DoEE, this variation remains on hold.

2.2 Variation to Condition 10.b)

A second variation was submitted to the DOEE on 16 October 2018 to address a potential non-compliance for condition 10b) which reads as follows:

*10 b) Within **5 years** of the substantial commencement of the action, the person taking the action must provide the department with written evidence, including certificates of title, that the POS Conservation areas have been transferred to the City of Wanneroo for the purpose of conservation.*

The five-year timeframe from commencement of action was due on 4 November 2018. Eglinton Estates requested that the timeframe for ceding be changed to 10 years as the development of the areas adjacent to the conservation areas has not commenced. DoEE approved the timeframe extension on 25 October 2018 (Attachment 6).

2.3 Variation to Change Shape of Conservation Area AG

A section 143 variation was submitted to the DoEE on the 17 April 2019 to change the shape of conservation AG to align with the conservation area AG in the Eglinton Structure Plan. The changes to conservation area AG are shown in Plate 3. The variation also removed the requirement of using native seed and topsoil from the proposal site for revegetation works in Yellagonga Regional Park. The variation required changes to conditions 9, 11, 12 and 14 and Attachments A, B and D.

The CMP and CRMP were revised as part of the variation process and the Department approved the revised management plans on the 5 June 2019 (Attachment 7)

The variation was approved by the Minister on 17 June 2019 (Attachment 7).

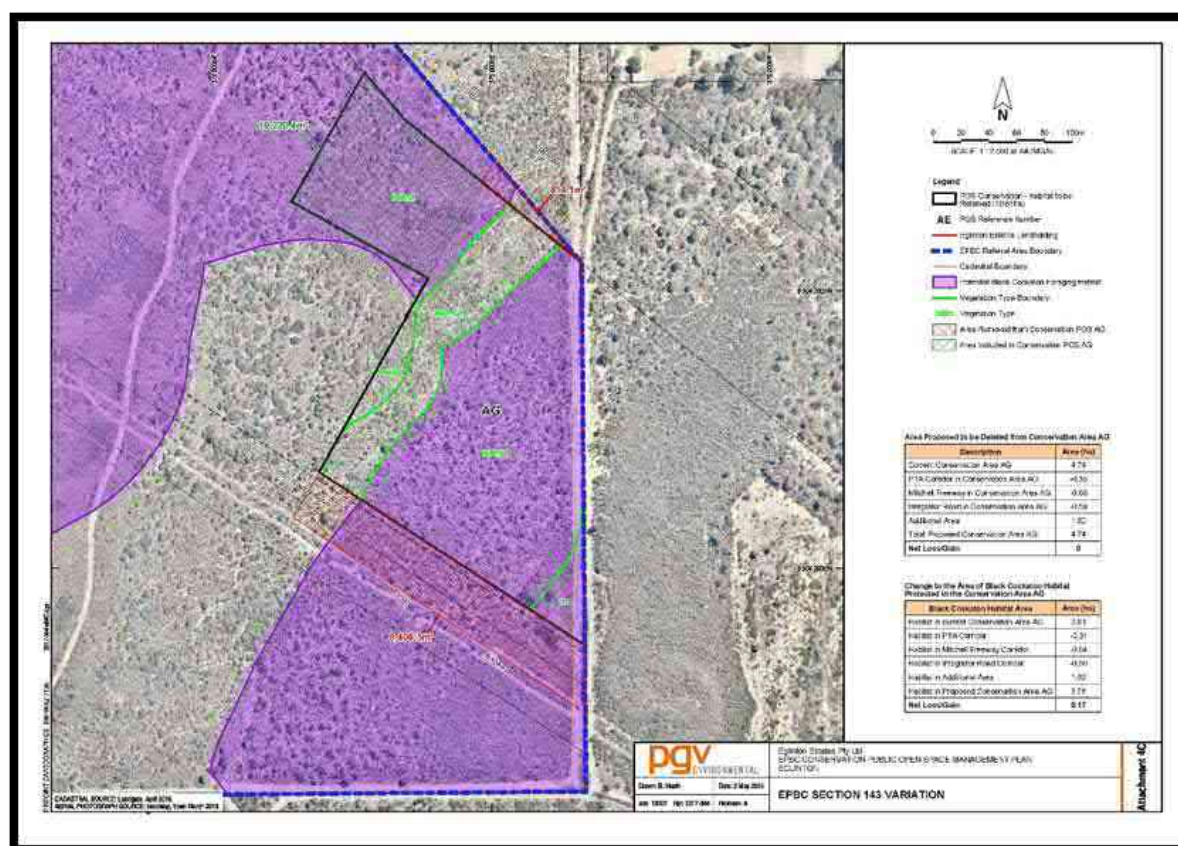


Plate 3: Variation to Conservation Area AG

The variation to conditions 9, 11, 12 and 14 and Attachments A, B and D was approved by the DoEE on 17 June 2019 (Attachment 7). As part of the variation process the Conservation Management Plan and Clearing Revegetation Management Plans were revised in accordance with condition 12. The DoEE approved the revised plans on the 5 June 2019 (Attachment 7). The specific change to conditions are detailed in Table 1.

Table 1: Change to approval conditions 9, 11, 12 and 14

Deleted Condition	Replacement Condition
EPBC Condition 3	
3. Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the department at the same time as the compliance report is published.	3. Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions.
	3.A. The person taking the action must notify the Department in writing of any non-

Deleted Condition	Replacement Condition
	<p>compliance with the conditions or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the non-compliance. The notification must specify:</p> <ul style="list-style-type: none"> a. the condition which is or may be in breach; and b. a short description of the non-compliance.
	<p>3.B. The person taking the action must provide to the Department the details of any non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the non-compliance, specifying:</p> <ul style="list-style-type: none"> a. any corrective action or investigation which the person taking the action has already taken or intends to take in the immediate future; b. the potential impacts of the non-compliance; and c. the method and timing of any remedial action that will be undertaken by the person taking the action.
Condition 9	
<p>9. To mitigate impacts to Carnaby's Black Cockatoo (<i>Calyptorhynchus latirostris</i>), the person taking the action must not clear any land that is proposed to be retained that is also habitat for Carnaby's Black Cockatoo, (as shown in Attachment B).</p>	<p>9. To mitigate impacts to Carnaby's Black Cockatoo (<i>Calyptorhynchus latirostris</i>), the person taking the action must not clear any land that is proposed to be retained that is also habitat for Carnaby's Black Cockatoo</p>
Condition 11	
<p>11. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must fully implement the revegetation of at least 12.7 ha of native vegetation (including primary feeding plants for Carnaby's Black Cockatoo) in the Yellagonga Regional Park (in consultation with the DEC) using seed and topsoil collected in accordance with the Clearing and Revegetation Management Plan required under condition 12.</p>	<p>11. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must fully implement the revegetation of at least 12.7 ha of native vegetation (including primary feeding plants for Carnaby's Black Cockatoo) in the Yellagonga Regional Park (in consultation with the DBCA) in accordance with the <i>Clearing and Revegetation Management Plan</i> required under condition 12.</p>
Condition 12	
<p>12. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must</p>	<p>12. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must</p>

Deleted Condition	Replacement Condition
<p>prepare and submit a Clearing and Revegetation Management Plan (the plan) for the Minister's approval. The plan must include:</p> <ul style="list-style-type: none"> a) A commitment to the staged collection of native seed prior to clearing from within Carnaby's Black Cockatoo foraging habitat as shown in Attachment B (checked in black, but excluding those areas shaded green in Attachment B), and the collection of topsoil from 33 ha of the project site, from within 73 ha of good or better condition Carnaby's Black Cockatoo habitat as shown in Attachment B (checked in black), for use in revegetation. b) A commitment to store native seed (excluding that which is required for revegetation on-site and within Yellagonga Regional Park) and transport it to a seed bank or receiving site(s) where revegetation is being undertaken by the DPaW or another receiving party (or parties). c) Detailed protocols for staged collection and use of native seed and topsoil required by conditions 12a, 12d and 12e to be developed in consultation with an independent revegetation expert (approved in writing by the Department) and the DPaW or other receiving party (or parties) including: <ul style="list-style-type: none"> i. The optimal methodology for native seed and topsoil collection from the proposal site; ii. How clearing will be staged to best utilise the native seed and topsoil resource for revegetation; iii. How native seed and topsoil will be stored and transported; iv. Measures to manage any topsoil from the site that contains invasive weeds (at a level that makes that soil not suitable for use in 	<p>submit a <i>Clearing and Revegetation Management Plan</i> (the plan) for the Minister's approval. The plan must include:</p> <ul style="list-style-type: none"> (a) a commitment to revegetate at least 1.9 ha of native vegetation within Public Open Space on the proposal site; (b) methodology for revegetation, both on-site, and in Yellagonga Regional Park (as required under condition 11) along with: <ul style="list-style-type: none"> i. survival targets proposed for plantings; ii. performance indicators and corrective measures; iii. roles and responsibilities; and iv. timeframes for the implementation and management of the above measures. (c) a commitment for at least 50% of plantings for trees and shrubs in street-scaping to consist of plants known to be primary feeding plants for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoos. <p>If the Minister approves the plan, then the approved plan must be implemented.</p>

Deleted Condition	Replacement Condition
<p>revegetation) or soil infestation such as Phytophthora; and</p> <p>v. On-site supervision and implementation of monitoring mechanisms.</p> <p>d) A commitment to revegetate at least 1.9 ha of native vegetation within Public Open Space on the proposal site.</p> <p>e) Methodology for revegetation, both on-site, and in Yellagonga Regional Park (as required under condition 11), using native seed and topsoil collected in accordance with the protocols require by condition 12c, along with:</p> <ul style="list-style-type: none"> i. Survival targets proposed for plantings; ii. Performance indicators and corrective measures; iii. Roles and responsibilities, and iv. Timeframes for the implementation and management of the above measures. <p>f) A commitment for at least 50% of planting of trees and shrubs in street-scaping to consist of plants known to be primary feeding plants for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoos.</p> <p>If the Minister approves the plan, then the approved plan must be implemented.</p>	
Condition 14	
<p>14. The person taking the action must not undertake any clearing of habitat for Carnaby's Black Cockatoo (as shown in Attachment B hatched in black) apart from of the area outlined in yellow in Attachment D, unless:</p> <ul style="list-style-type: none"> a) The Clearing and Revegetation Management Plan required under condition 12 has been approved by the Minister; and 	<p>14. The person taking the action must not undertake any clearing of habitat for Carnaby's Black Cockatoo (such habitat being designated in <u>Attachment B</u> as the areas hatched in black), except for the area designated in <u>Attachment D</u> by yellow outline, unless the <i>Clearing and Revegetation Management Plan</i> required under condition 12 has been approved by the Minister.</p>

Deleted Condition	Replacement Condition
<p>b) For each proposed clearing stage, the department has been provided written evidence that the DEC or other receiving party (or parties) agree(s) to utilise the seed and soil for the purposes of revegetation in accordance with the protocols developed under condition 12(c).</p>	

2.4 Future Variation Requests

The section 143 submitted to the DoEE on 28 September 2018 has been addressed in the above sections 2.1 and 2.2.

A Section 143 variation will be submitted for Conditions 10b) and Condition 12d) at the appropriate time to reflect the correct process for vesting in Western Australia.

The PTA will be commencing construction works for the Yanchep Perth Rail and associated infrastructure in the next reporting period. The rail corridor and Eglinton Station are in the Referral Area. Eglinton Estates and the PTA are currently working through the EPBC obligations and will advise the Department on the outcomes. PTA has provided the proposed footprint for the rail and Eglinton Station (Figure 2).

3 CURRENT STATUS

3.1 Project Description

The project area subject to EPBC approval 2010/5777 is shown in Plate 1. The extent of clearing within the referral area to November 2019 (last flown aerial) is shown in Plate 2 and Figure 2.

Stockland is delivering the urban development project known as Amberton at the southern end of the Eglinton development.

The Amberton development will deliver the following:

- Residential Lots;
- Commercial Precinct;
- Schools;
- District and Local Public Open Space (recreational and drainage functions); and
- Conservation Public Open Space.

The PTA is constructing the Yanchep Rail Extension from Butler to Yanchep which will include the Eglinton Station. A portion of the works are located in the Referral Area. The works included in the Referral Area include construction of the rail, station, associated access roads, earthworks outside of the rail corridor associated with the rail alignment and a temporary carriage turning yard. The proposed finish date is December 2021. The Yanchep Rail Extension works are partly in land owned by the PTA and partly land owned by Eglinton Estates.

Lot 5001 which is partially in the Proposal Area has been purchased from Eglinton Estates by Peet 2018 No.1 Pty Ltd (Peet). Peet are preparing to develop Lot 5001 for residential lots, public open space, regional open space and associated infrastructure. The change in ownership and responsibility for compliance with EPBC 2010-5777 has been addressed in the above sections 2.1 and 2.2.

3.2 Current Project Activities

During this reporting period the construction of Phase 1 and 3 of Amberton has continued in the south west corner of the referral area. Figure 2 shows the referral area in November 2018. There has been no additional vegetation cleared in the referral area during this reporting period. There has been some vegetation slashing during the reporting period to allow for the UXO survey to be undertaken in the rail corridor and station areas.

To date, 36ha of native vegetation has been cleared in the referral area of which 15.56ha was CBC habitat.

The following tasks have been undertaken during the reporting period:

- Annual spring monitoring of the permanent quadrats in Conservation POS areas AE, AG and AH as identified in Figure 2 (Eglinton Conservation POS Monitoring Report – Year 2019 is attached at Attachment 8);
- Implementation of the Eglinton CRMP has continued (see section 5 for implementation status);

- Rehabilitation has continued in areas 1a and 1b (6.2ha) at Yellagonga Regional Park (YRP). Activity to date has included weed control, fencing, scarification, native seed broadcasting, planting of tubestock including CBC foraging species;
 - Annual monitoring of the re-vegetation monitoring plots (Yellagonga Regional Park Sites 1a and 1b Monitoring Report – Year 2018 attached at Attachment 9; and
 - ongoing weed control.
- CBC foraging species have been used in street plantings at Amberton;
 - Public Open Space 7 has been partially planted with Black Cockatoo species (4863m²) which is approximately 25% of the required 1.9ha of Black Cockatoo habitat required under the CRMP;
 - Vegetation reduction was undertaken by the Perth Transit Authority (PTA) in the Yanchep Rail Extension Corridor and in the vicinity of the future Eglinton Station. The vegetation reduction was required to undertake an Unexploded Ordinance Survey (UXO); and
 - Firebreaks were maintained in the referral area.

The City of Wanneroo are currently undertaking duplication upgrade works to Marmion Avenue which traverses the proposal area. As part of these works, two roundabouts have been constructed to provide access into Lot 5001, Lot 800 & Lot 801 (Figure 2). These works have resulted in a small area of Black Cockatoo habitat being cleared.

Works have not commenced on Lot 5001, however the City of Wanneroo has begun construction on two roundabouts that will provide access to the future development off Marmion Ave. Peet have provided a memo detailing the works (Attachment 10).

3.3 Project Activity Year 2020

Development east of Marmion Ave may commence in the next reporting period in an area called the Eglinton Hill Precinct. Works will include road and subdivision construction which will require clearing of Black Cockatoo habitat.

Construction works will also commence on the Yanchep Rail Extension and Eglinton Station project which traverses the EPBC Referral Area. These works will be undertaken by the PTA and will be in accordance with the EPBC 2010/5777 approval, the CMP and the CRMP. Implementation of CMP management actions along the interface of Conservation Area AG and the eastern boundary of the rail reserve will commence to protect the conservation area from construction works.

Subdivision works may commence on Lot 5001 over the next reporting period. Peet will be undertaking these works in accordance with the CRMP and CMP. Compliance with the management plans will be monitored by Peet's Environmental Consultant in consultation with Eglinton Estates and PGV Environmental.

Implementation of the listed tasks in section 3.2 will continue in Year 2020.

4 COMPLIANCE

4.1 Compliance Assessment Method

An audit of the Eglinton project was conducted on 15-25 November 2018 to facilitate the assessment of compliance against EPBC 2010/5777 Approval Conditions and the implementation of required management plans (CMP and CRMP). The audit was conducted by Belinda Heath of PGV Environmental.

The following personnel provided information during the audit:

- Paul van der Moezel (Project Botanist/Environmental Consultant);
- Tasio Cokis (Project Manager);
- Tom Barry (Stockland Project Manager);
- Zach Fried (Landscape Architect);
- Damian Grose (Rehabilitation Consultant);
- Julia Griffiths (Peet - Project Manager);
- Chris Lehman (Strategen JBS&G - Environmental Consultant to Peet); and
- Sarah Gerritzen (Public Transport Authority)

The terminology used during the audit to define the level of compliance is listed below:

1. **Compliant:** Implementation of the proposal has been carried out in accordance with the requirements of the audit.
2. **Not Applicable/Not Required:** The requirements of the audit element were not triggered during the reporting period or were no longer applicable to the reporting period.
3. **Partially non-compliant:** Implementation of the proposal has been partially implemented, however has not been carried out in accordance with all of the requirements of the audit element.
4. **Non-compliant:** Implementation of the proposal has not been carried out in accordance with the requirements of the audit element.
5. **Complete:** The condition has been fulfilled.

The information reviewed, and the evidence obtained during this audit has been presented within the Compliance Audit Table (Table 1), along with additional information gathered during a desktop study/investigation.

4.2 Compliance Audit Table

4.2.1 Section 143 variation to Conditions

The section 143 variation approved by the DoEE on 17 June 2019 resulted in a change to conditions 3, 9, 11, 12 and 14 and Attachments A, B and D to the approval. The conditions have been updated accordingly in the Compliance Audit Table.

The Compliance Audit Table has been updated to reflect compliance with conditions during the reporting period (Table 2).

Table 2: Compliance Audit Table (note: for each EPBC Condition listed below, the reference to attachments relates the actual EPBC Approval 2010/5777 document that is appended to this report at Attachment 2).

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
EPBC Condition 1	<i>Within 30 days after the commencement of the action, the person taking the action must advise the department in writing of the actual date of commencement.</i>				
1.1 Submission of written advice from Eglinton regarding commencement within 30 days of the commencement of action	Letter sent on 13 August 13 informing DoEE that commencement was likely in November 2013. Letter sent to DoEE on 11 Feb 2014 informing actual commencement date of 4 Nov 2013.	Documents 10007_136_BH (2) 10007_162_BH V2	Evidence of advice to DoEE	Sighting of the written advice and proof of transmittal	Complete
EPBC Condition 2	<i>The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the department. Such records may be subject to audit by the department or an independent auditor in accordance with section 458 of the EPBC Act or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the department's website. The results of audits may also be publicised through the general media.</i>				
2.1 Records maintained substantiating all associated or relevant activities	In accordance with Condition 2 of the approval, records of all activities relating to the conditions of approval are being maintained on behalf of Eglinton Estates by Woodsome Management and PGV Environmental. This compliance report provides an overview of all the actions relating to each condition.	Records are maintained	Evidence of Eglinton Estate's records	Sighting of all relevant records	Compliant
2.2 Records to be made available to DoEE upon request	DoEE has not requested records form Eglinton Estates	N/A	Evidence of request and availability	Sighting of DoEE request and proof of	Not required

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
				transmittal of records	
EPBC Condition 3	<p><i>Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions.</i></p> <p><i>3.A. The person taking the action must notify the Department in writing of any non-compliance with the conditions or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the non-compliance. The notification must specify:</i></p> <p><i>a. the condition which is or may be in breach; and</i></p> <p><i>b. a short description of the non-compliance.</i></p> <p><i>3.B. The person taking the action must provide to the Department the details of any non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the non-compliance, specifying:</i></p> <p><i>a. any corrective action or investigation which the person taking the action has already taken or intends to take in the immediate future;</i></p> <p><i>b. the potential impacts of the non-compliance; and</i></p> <p><i>c. the method and timing of any remedial action that will be undertaken by the person taking the action.</i></p>				
3.1 Compliance report published on project website within 3 months of every 12 month anniversary of the commencement of action.	This report will be published on the project website and updated annually for the duration of the approval.	The compliance report can be found at https://www.stockland.com.au/residential/wa/amberton/buying-and-building	Evidence of publication	Viewed on website	Compliant

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
3.2 Report addresses compliance with each of the conditions of the approval.	This report provides an overview of all the actions relating to each approval condition	This report	Report complies with this requirement	Review Report	Compliant
3.3 Report addresses implementation of management plans specified in the approval.	This report addresses the implementation of management plans specified in the approval.	This report	Report complies with this requirement	Review report	Compliant
3.4 Inform the Department in writing of any potential and or non-compliance with the approval conditions or commitments made in the CMP and CRMP as soon as practical and no later than 2 business days 2 days after becoming aware of the non-compliance at the same time as the compliance report is published	Review any potential or non - compliance issues as soon as they become known and provide a short summary of the non-compliance. Detail which conditions or commitments are impacted in the non-compliance.	Prepare written correspondence detailing the non-compliance	Provide correspondence to the Department	Acknowledgment that the Department has received correspondence	Compliant
3.5 Prepare a report within days 10 days of becoming aware of the non-compliance addressing the following: <ul style="list-style-type: none"> non-compliance with conditions impacted; 	The non-compliance report will provide the detail about the non-compliance, any investigations required to inform remedial action by the Proponent.	Non-compliance report	Provide report to the Department	Acknowledgment that the Department has received the report.	Compliant

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
<ul style="list-style-type: none"> any investigations that have been implemented, what corrective actions will be taken in the future, and the method and timing of any remedial action to be undertaken by the person taking the action. 					
3.6 Date of publication of the compliance report provided to DoEE at the same time as the report is published.	<p>This report will made available to the public in the first week of February. The report can be found on the Stockland website.</p> <p>https://www.stockland.com.au/residential/wa/amberton-beach/news-and-events/conservation-at-amberton</p>	Email to the DoEE dated 5 February 2020.	Email correspondence with DoEE	Sighting of email correspondence	Compliant
EPBC Condition 4	<p><i>Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.</i></p>				
4.1 If requested by the Minister an independent auditor will be will	The Minister has not requested an independent audit of compliance with approval conditions	Letter from the Minister	Evidence of compliance	Sighting of Minister letter	Not Required

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
undertake an audit of compliance with the approval conditions.					
4.2 The Minister must approve the independent auditor	N/A	Eglinton Estates to provide letter to the Minister informing of independent auditor	Letter correspondence to the Minister	Sighting of letter to Minister.	Not required
4.3 Audit criteria must be prepared and approved by the Minister prior to the audit being undertaken.	N/A	Independent auditor to provide audit criteria to Minister for approval	Letter to Minister	Sighting of letter	Not required
4.4 The audit report must address the criteria to the satisfaction of the Minister.	N/A	Independent auditor to provide audit report addressing the agreed audit criteria to the Minister	Audit report provided to the Minister	Sighting of report and transmittal	Not required
EPBC Condition 5	<i>If the person taking the action wishes to carry out any activity otherwise than in accordance with the management plans as specified in the conditions, the person taking the action must submit to the department for the Minister's written approval a revised version of that management plan. The varied activity shall not commence until the Minister has approved the varied management plan in writing. The Minister will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan, the revised management plan must be implemented in place of the management plan originally approved.</i>				
5.1 If any activity other than those identified in management plans as specified in the conditions, a written request must be made to	In accordance with this condition Eglinton Estates will notify the DoEE of any changes to the management plans.	N/A	The CRMP has been approved by the DoEE	Sighting of correspondence Attachment 7	Compliant

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
the DoEE to revise the management plan.	The CRMP was revised during the last reporting period to reflect the variation on approval condition 12(a).				
5.2 The varied action will not commence until the minister has approved the variation top the management plan.	The CRMP was revised on the 10 May 2016 The CRMP and CMP were revised and submitted to the Department on 2 June 2019	This Report	CRMP, CMP and this Compliance Report provided to DoEE	Sighting of reports	Compliant
5.3 On the Minister's approval the revised management plan must be implemented in place of the original management plan	The revised CRMP and CMP were approved by the Minister and are being implemented	This Report and Letter form DoEE dated 17 June 2019	Verify conformance with approved revised management plan	Sighting of evidence verifying implementation of management plans	Compliant
EPBC Condition 6	<i>If the Minister believes that it is necessary or convenient for the better protection of listed threatened species to do so, the Minister may request that the person taking the action make specified revisions to the management plan/s specified in the conditions and submit the revised management plants for the Minister's written approval. The person taking the action must comply with any such request. The revised approved management plans must be implemented. Unless the Minister has approved the revised management plants, then the person taking the action must continue to implement the management plan/s originally approved, as specified in the conditions.</i>				
6.1 Management Plans to be revised as specified in the Ministers request.	No revisions to the Management Plans have been requested by the Minister	N/A	Correspondence from the Minister	Sight correspondence from the Minister	Not required
6.2 Revised management plans to be submitted to the Minister for written approval.	No revisions to the Management Plans have been requested by the Minister	N/A	Correspondence to the DoEE	Sight correspondence to the DoEE	Not required

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
6.3 The approved revised plan must be implemented.	No revisions to the Management Plans have been requested by the Minister	N/A	Verify implementation of revised management plans	Sight records to Confirm implementation of the revised approved management plan.	Not required
6.4 If the Minister has not approved the revised management plan, the original management plan must be implemented.	No revisions to the Management Plans have been requested by the Minister	N/A	Verify implementation of the original management plan	Sight records to confirm implementation of the management plan.	Not required
EPBC Condition 7	<i>If, at any time after 5 years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.</i>				
7.1 If the action has not commenced after five years from the approval date written agreement must be given by the Minister before commencement of action.	The project has commenced, and the Minister has been informed.	Letters to DoEE 10007_136_BH (2) 10007_162_BH V2	Commencement of action on 4 Nov 2013	Letter to DoEE sighted	Complete
EPBC Condition 8	<i>Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved.</i>				
8.1 Approved management plans published on website of person taking the action	Following the approval of all management plans, the plans will be published on the project website for the duration of the approval.	The management plans can be found at	Verify management plans are on the website	Approved management plans are sighted on the website	Compliant

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
within one month of approval.	The revised CRMP and CMP was placed on the website on 9 August 2019.	https://www.stockland.com.au/residential/wa/amberton-beach/news-and-events/conservation-at-amberton			
EPBC Condition 9	<i>9. To mitigate impacts to Carnaby's Black Cockatoo (Calyptorhynchus latirostris), the person taking the action must not clear any land that is proposed to be retained that is also habitat for Carnaby's Black Cockatoo</i>				
9.1 Land identified in Attachment B of the approval must not be cleared.	Clearing has commenced in the Project area (see Figure 2) in accordance with the approval conditions. Figure 2 shows that no land has been cleared in the conservation areas identified in Attachment B of the approval.	Figure 2 provides evidence of the clearing to November 2019.	Figure 2 confirms that the areas identified for protection in Attachment B have not been cleared.	View Figure 2	Compliant
EPBC Condition 10	<i>To protect and enhance habitat for listed threatened species that is retained on the proposal site, the person taking the action must:</i> <ul style="list-style-type: none"> <i>(a) Prepare and submit, within 12 months of the date of this approval, a Conservation Management Plan detailing management of habitat for listed threatened species that is retained on the proposal site for the Minister's approval. The plan must include:</i> <ul style="list-style-type: none"> <i>i. Measures to physically delineate (through fencing or other means) areas that will be retained;</i> <i>ii. Erosion and dust control measures during construction;</i> <i>iii. The management of weeds, phytophthora dieback, bushfire and feral animals;</i> <i>iv. Identification of any degraded habitat for listed threatened species and revegetation of those areas;</i> <i>v. A monitoring program for listed threatened species and their habitat;</i> <i>vi. Performance indicators and corrective actions;</i> <i>vii. Roles and responsibilities;</i> <i>viii. Time frames for the implementation of the above measures; and</i> <i>ix. How condition 10(b) will be implemented, including who will be responsible for the long-term management of the retained land, and how the land will protected in the long-term.</i> 				

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
	<p><i>If the Minister approves the plan, the approved plan must be implemented.</i></p> <p><i>(b) within 10 years of the substantial commencement of the action, the person taking the action must provide the department with written evidence, including certificates of title, that the 'POS Conservation' areas (marked in green in Attachment A) has been transferred to the City of Wanneroo for the purpose of conservation.</i></p>				
Criteria 10.1	To protect habitat for listed threatened species, the person taking the action must prepare and submit a Conservation Management Plan(CMP) detailing management of POS (designated Conservation POS at Attachment B), for the approval by the Minister.				
10.1.1 The CMP prepared detailing management of the areas identified in Attachment B of the approval.	In accordance with the timeframes required by condition 10 the CMP was prepared	Hard copy of the CMP	CMP prepared	Review CMP	Complete
10.1.2 The CMP must be submitted for approval by the Minister.	In accordance with the timeframes required by condition 10 the CMP was submitted on 29 April 2014. A revised CMP was approved by the Minister on 5 June 2019	Email to the Department on 29 April 2014.	Correspondence to the DoEE	Sight correspondence to the Department	Complete
Criteria 10.2	Measures to physically delineate (through fencing or other means) areas that will be retained				
10.2.1 The conservation POS areas will be surveyed and fenced.	The CMP includes the action to survey and fence the areas identified for conservation POS. Fencing will be constructed prior to vegetation clearing for adjacent development areas. No vegetation clearing has occurred in the Referral Area during the reporting period.	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.3	Erosion and dust control measures during construction				
10.3.1 Erosion and dust control measures are provided in the CMP	Provision for the control of erosion and dust are provided in the CMP .	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
Criteria 10.4	The management of weeds, Phytophthora dieback, bushfire and feral animals				
10.4.1 Management of weeds, phytophthora dieback, bushfires and feral animals are provided in the CMP	Provision for the management of weeds, Phytophthora dieback, bushfires and feral animals are provided in the CMP.	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.5	Identification of any degraded habitat for listed threatened species and revegetation of those areas				
10.5.1 Degraded habitat within the conservation POS is identified in the CMP.	The CMP identifies degraded areas within the conservation POS.	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
10.5.2 The degraded areas will be rehabilitated using primary CBC foraging species	The CMP identifies the species to be used in revegetation of the degraded areas.	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.6	A monitoring program for listed threatened species and their habitat				
10.6.1 Monitoring Program for CBC and their habitat	Monitoring measures are provided in the CMP	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.7	Performance indicators and corrective actions				
10.7.1 Performance Indicators	The CMP includes performance indicators	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
10.7.2 Corrective Measures	The CMP includes corrective measures	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.8	Roles and responsibilities				
10.8.1 Roles and Responsibilities	The CMP includes roles and responsibilities	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.9	Time frames for the implementation of the above measures				

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
10.9.1 Time frames for the implementation of the above measures	The CMP includes time frames for the implementation of the above measures	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.10	How condition 10(b) will be implemented, including who will be responsible for the long-term management of the retained land, and how the land will protected in the long-term				
10.10.1 How condition 10(b) will be implemented	The CMP provides an implementation schedule	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
10.10.2 Long term management	The CMP identifies those responsible for the long-term management of the conservation POS	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
10.10.3	The CMP identifies the process for the long-term protection of the conservation POS.	Hard copy of the CMP	The CMP includes this requirement	Review CMP	Compliant
Criteria 10.11	If the Minister approves the plan, the approved plan must be implemented.				
10.11.1 Approval of the CMP	The Minister approved the CMP The revised CMP was approved by the Department on the 5 June 2019	Letter from DoEE dated 23 July 2014 Letter from DoEE dated 20 June 2019	Correspondence from the Minister	Sighting DoEE letter	Complete
10.11.2 Implement the CMP	The CMP will be implemented as approved (see Table 2 for CMP implementation status)	Implementation of management CMP actions	Verify conformance with CMP	Sight evidence to confirm implementation of the CMP .	Compliant
Criteria 10.12	Within 10 years of the substantial commencement of the action, the person taking the action must provide the department with written evidence, including certificates of title, that the 'POS Conservation' areas (marked in green in Attachment A) has been transferred to the City of Wanneroo for the purpose of conservation.				
10.12.1 Within five years of commencement of action provide written evidence that the conservation POS has	Transfer of conservation POS will occur as part of the subdivision process for the adjacent development areas.	Letter to the Department informing of transfer of conservation POS to the City of Wanneroo.	Verify that conservation POS has been transferred to the City of Wanneroo for conservation	Sighting letter and Certificate of Titles.	Not required

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
been transferred to the City of Wanneroo for the purpose of conservation	To date there is no development adjacent to the conservation POS.	Transfer of certificate of Titles	purposes by 4 November 2018		
EPBC Condition 11	<i>11. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must fully implement the revegetation of at least 12.7 ha of native vegetation (including primary feeding plants for Carnaby's Black Cockatoo) in the Yellagonga Regional Park (in consultation with the DBCA) in accordance with the Clearing and Revegetation Management Plan required under condition 12.</i>				
11.1.1 Four sites (12.7ha) have been identified in the Yellagonga Regional Park that requires full rehabilitation.	The four sites are identified in the CRMP.	Hard copy of the CRMP	CRMP includes this requirement	Review CRMP	Compliant
EPBC Condition 12	<p><i>12. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must submit a Clearing and Revegetation Management Plan (the plan) for the Minister's approval. The plan must include:</i></p> <p><i>(a) a commitment to revegetate at least 1.9 ha of native vegetation within Public Open Space on the proposal site;</i></p> <p><i>(b) methodology for revegetation, both on-site, and in Yellagonga Regional Park (as required under condition 11) along with:</i></p> <p><i>i. survival targets proposed for plantings;</i></p> <p><i>ii. performance indicators and corrective measures;</i></p> <p><i>iii. roles and responsibilities; and</i></p> <p><i>iv. timeframes for the implementation and management of the above measures.</i></p> <p><i>(c) a commitment for at least 50% of plantings for trees and shrubs in street-scaping to consist of plants known to be primary feeding plants for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoos.</i></p> <p><i>If the Minister approves the plan, then the approved plan must be implemented.</i></p>				
Criteria 12.1	To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must prepare and submit a Clearing and Revegetation Management Plan (the plan) for the Minister's approval				

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
12.1.1 A CRMP must be prepared and approved by DPaW and submitted to DoEE.	The CRMP has been prepared in consultation with DPaW within the given timeframes.	Hard Copy of the CRMP 10007_118_BH	CRMP prepared and approved by the DPaW on 9 August 2013.	Review Plan and DPaW approval. DPaW 2006/005833-1	Complete
12.1.2 The CRMP was submitted to DoEE for the Ministers approval	The CRMP was submitted to the Minister for approval. A revised CRMP was submitted to the Department in December 2015. A revised CRMP was submitted to the Department on the 2 June 2019	Email and hardcopy of the CRMP lodged with DoEE Hard Copy of the CRMP submitted to DoEE 10007_118_BH Electronic copy	CRMP approved by DoEE on 8 November 2013 CRMP approved by the DoEE on 9 May 2016 Revised CRMP approved by the Department on 5 June 2019	Review CRMP and DoEE email approval	Complete Compliant Compliant
Criteria 12.2	A commitment to revegetate at least 1.9 ha of native vegetation within Public Open Space on the proposal site				
12.2.1 The CRMP identifies areas where the 1.9ha of revegetation can occur.	A commitment was made in the CRMP to revegetate 1.9ha of POS at Eglinton.	Hard Copy of the CRMP 10007_118_BH V9	CRMP includes this requirement	Review Plan	Complete
Criteria 12.3	survival targets proposed for plantings				
12.3.1 The survival targets are provided in the CRMP	Survival targets were prepared in consultation with Tranen and DPaW.	Hard Copy of the CRMP	CRMP includes this requirement	Review Plan	Complete
Criteria 12.4	performance indicators and corrective measures				
12.4.1 Performance measures and corrective measures are provided in the CRMP	Performance measures are being prepared based on nearby reference site spring survey conducted in 2017 and the final species list.	Hard Copy of the CRMP Attachment 13 to this report	CRMP includes this requirement	Review Plan Review Attachment 13	Complete

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
Criteria 12.5	A commitment for at least 50% of plantings for trees and shrubs in street-scaping to consist of plants known to be primary feeding plants for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoo.				
12.5.1 A commitment to at least 50% of street scapes being planted with CBC foraging species has been made in the CRMP	The landscape architects will include 50% of plantings in streetscapes with CBC foraging species.	Hard Copy of the CRMP	CRMP includes this requirement. Attachment 14 provides the masterplan for street planting in the Referral area to date.	Review Attachment 14.	Compliant
12.5.2	Site selection for street scaping with CBC species is considered in the CRMP .	Hard Copy of the CRMP .	CRMP includes this requirement	Review Plan	Complete
Criteria 12.6	If the Minister approves the plan, then the approved plan must be implemented.				
12.6 The approved CRMP will be implemented	The CRMP will be implemented as per the listed management actions and implementation schedule (see Table 4 for implementation status).	Implementation of CRMP management actions	Verify conformance with CRMP	Sight Monitoring Report for YRP.	Compliant
EPBC Condition 13	<p><i>To offset the loss of habitat for Carnaby's Black Cockatoo, within 12 months of the date of this approval, the person taking the action must, by January 2016:</i></p> <p><i>(a) Provide monies to the DEC to fully fund. the acquisition of:</i></p> <p style="padding-left: 40px;"><i>i. An offset property (or properties) that contains at least 886 ha of good quality foraging habitat for Carnaby's Black Cockatoo, that is within the 'Regans Ford' or Gingin area; or</i></p> <p style="padding-left: 40px;"><i>ii. Another parcel of land approved in writing by the department; and</i></p> <p><i>(b) Provide the department with a textual description and map clearly defining the location and boundaries of the offset property described in condition 13(a), which must be accompanied with the offset attributes and a shapefile.</i></p>				
Criteria 13.1	<p>Provide monies to the DEC to fully fund the acquisition of:</p> <p style="padding-left: 40px;">i. an offset property that contains at least 886 ha of good quality foraging habitat for Carnaby's Black Cockatoo, that is within the 'Regans Ford' locality according to Landgate's WA Atlas; or</p> <p style="padding-left: 40px;">ii. another parcel of land approved in writing by the department</p>				

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
13.1.1 Within 12 months provide monies within 12 months of the date of the approval to DPaW for the acquisition of an offset property not less than 850ha of good quality CBC habitat that is within 'Regans Ford' locality according to Landgate's WA Atlas	Alex Errington (DPaW) confirmed receipt of funds for the acquisition of a property that contains at least 850ha of good quality CBC habitat in the Regan's Ford locality within 12 months of the approval date. Eglinton Estate's request confirmation from DoEE that condition 13 (a) has been cleared	DPaW email correspondence dated 22 August 2013 confirming transfer of funds. DoEE provide correspondence that condition has been cleared 14 January 2014.	Provide funds to the DPaW	Sighting of DPaW correspondence Sighting of DoEE correspondence	Complete
13.1.2 Variation requires that additional funds are to be provided to DPaW by January 2016 to purchase 36ha of CBC habitat in the Regan's Ford or Gingin locality.	Additional funds to be provided to the DPaW to purchase an additional 36ha of CBC habitat at Wannamal.	DPaW invoiced Eglinton Estates on the 20 January 2016	Provide funds to the DPaW	Sighting of DPaW Receipt Number 58771.	Complete
Criteria 13.2	Provide the department with a textual description and map clearly defining the location and boundaries of the offset property described in condition 13(a), which must be accompanied with the offset attributes and a shapefile.				
13.2.1 Within 12 months of the date of approval provide the DoEE with a textual description and map clearly defining the location and boundaries of the offset property, which must be accompanied with the offset attributes and a shapefile.	Alex Errington (DPaW) provided the information relating to the property to Sam Wagstaff (DoEE).	DPaW email 22 August 2013. DoEE provide correspondence that condition has been cleared 14 January	Provide property information to DoEE	Sighting of DPaW correspondence Sighting of DoEE correspondence	Complete

EPBC 2010/5777 Approval	Comment	Evidence	Requirement	Verification Method	Status
13.2.2 By January 2016 provide the DoEE with a textual description and map clearly defining the location and boundaries of the offset property, which must be accompanied with the offset attributes and a shapefile.	Alex Errington (DPaW) has committed to provide the information relating to the property to the DoEE on 29 January 2016.	DPaW email 22 January 2016 confirming that payment has been made and that textual description will be provided by the DPaW	Provide property information to DoEE	Sighting of DPaW correspondence	Complete
EPBC Condition 14	14. The person taking the action must not undertake any clearing of habitat for Carnaby's Black Cockatoo (such habitat being designated in <u>Attachment B</u> as the areas hatched in black), except for the area designated in <u>Attachment D</u> by yellow outline, unless the <i>Clearing and Revegetation Management Plan</i> required under condition 12 has been approved by the Minister .				
Criteria 14.1	The person taking the action must not undertake any clearing of habitat for Carnaby's Black Cockatoo (as shown in <u>Attachment B</u> hatched in black) apart from of the area outlined in yellow in Attachment D, unless the Clearing and Revegetation Management Plan required under condition 12 has been approved by the Minister; and:				
14.1.1 No clearing of CBC habitat is allowed in areas apart from those outlined in yellow in Attachment D.	No clearing occurred in CBC habitat apart from the areas identified with yellow boundaries in Attachment D prior to the CRMP being approved.	Compliance Report 1.	Requirement of CRMP	Sighting of Figure 2 in Compliance Report 1	Complete

4.3 Reporting on Instances of Potential Non-compliance or Non-Compliance

Based on the information received and reviewed, the Proponent has demonstrated compliance with all of the conditions of EPBC approval 2010/5777.

The Proponent has met all commitments as listed within the CRMP and CMP for this reporting period.

There are no potential or non-compliance issues during this reporting period.

5 COMPLIANCE WITH MANAGEMENT PLANS

The Eglinton Estates CMP and CRMP have been partially implemented during this reporting period. Audit Tables 3 and 4 provide the status of the management actions for each of the management plans.

A number of the activities/commitments associated with implementation of the CMP (Table 3) and CRMP (Table 4) were not relevant for the current reporting period as they were not part of the current years' work schedule. These items were reported as Not Applicable/Not required.

5.1 Conservation Management Plan

The CMP was approved on 23 July 2014 and some management actions have been implemented since then. Development has not occurred within vicinity of the EPBC Conservation POS areas in this reporting period 2017/18, therefore the CMP has not required to be fully implemented.

Construction of the Yanchep Rail Extension by the PTA will commence in the 2020 reporting period. Management actions will be implemented during this reporting period to protect the adjoining Conservation Area AG.

The duplication of Marmion Avenue by the City of Wanneroo has commenced and will continue in the 2020 reporting period.

5.1.1 Compliance with Management Actions

Table 2 below provides the status of the management actions for the CMP. Many of the actions were not relevant to this reporting period.

The Vegetation and Flora Survey and Baseline Weed Surveys for the EPBC Conservation POS areas were completed in spring 2014.

Vegetation monitoring was undertaken in spring 2019 (Report attached at Attachment 8).

5.1.2 Amendments to Plan

The section 143 change to conditions 3, 9, 11, 12, and 14 required the CMP to be revised. The main changes to the CMP included the change to the boundary of conservation area AG.

Table 3 has been revised to reflect the newly approved version of the CMP.

5.1.3 Potential Non-Compliance or Non-Compliance

There are no potential or non-compliances during the report period 2018-19.

Table 3: Conservation Management Plan - Compliance Audit Table

Action		Comment	Evidence	Requirement	Verification Method	Status
1	Retain the 16.45ha of vegetation in the POS conservation area as shown in Figure 3 and manage as POS conservation. Within these areas, no clearing of trees or understorey will be permitted other than for approved paths, boardwalks, seating, lookout points and educational signage which where possible will be established on existing tracks.	The LSP will be updated in 2016 to reflect some changes in the boundaries of conservation area AG. LSP Amendment process has not been completed during this reporting period.	WAPC LSP Amendment Approval	EPBC Approval 2010/5777	Sight WAPC Approval (Attachment 12)	Complete
2	Negotiate and document the procedure for ceding the POS conservation to the City of Wanneroo for the purpose of preservation of bushland.	The procedure for ceding the POS conservation areas will be documented when planning for subdivisions adjacent to the POS conservation is commenced. Ceding will occur at the relevant stage of subdivision adjacent to the conservation areas. CoW will not accept the conservation POS prior to subdivision. Subdivision planning adjacent to the POS conservation areas is not anticipated in the next reporting period.	CoW Subdivision Approval	EPBC Approval 2010/5777	Sight CoW subdivision approval.	Not required

Action		Comment	Evidence	Requirement	Verification Method	Status
3	Mitigate the impact of subdivision by fronting the POS conservation area with single fronted roads (to be designed by the developer).	Conservation POS areas will have a hard interface (i.e. road or dual use path) separating them from the development.	CoW Subdivision Approval	CMP	Sight CoW subdivision approval.	Not required
4	Construct appropriate fencing (e.g. standard stock/farm fencing with lockable gates) around the POS conservation to control access and passive recreational use to minimise impacts on native vegetation prior to subdivision.	Fencing the conservation POS will occur prior to subdivisional works.	Photos of fencing	CMP	Sight fencing in field	Not required
5	Prepare 3m fire breaks around POS conservation and maintain prior to development.	Firebreaks will be constructed once fencing is in place. Provision of fire breaks earlier than this will allow for off road vehicle access to conservation POS. Note firebreaks are in place around wider landholding.	Photos	CMP	Sight fire breaks	Not Required
6	Undertake a vegetation and flora survey in Spring 2014 in the POS conservation areas.	The spring survey will provide a species list.	Report	CMP	Sight Report	Complete
7	Undertake a baseline weed mapping survey in CBC habitat, in accordance with DPaW's Standard Operating Procedure No. 22.1.	The weed survey will identify key weed species and areas that require weed control.	Report	CMP	Sight Report	Complete
8	Set up two permanent quadrats in each area of POS conservation for annual vegetation/weed monitoring.	Set up quadrats to monitor long term condition of the conservation areas.	Report	CMP	Sight Monitoring Report 2019 (Attachment 8)	Compliant

Action		Comment	Evidence	Requirement	Verification Method	Status
9	Contract a qualified rehabilitation and revegetation contractor to undertake on-ground planning for revegetation works	The Spring Survey will identify areas that require rehabilitation that will be undertaken during subdivisional works.	Rehabilitation Plan	CMP	Sight Plan	Not Required
10	Prepare revegetation site works plan, schedule and costs.	Schedule of costs for rehabilitation works will be prepared during subdivisional works.	Rehabilitation Plan/Cost Schedule	CMP	Sight Plan	Not Required
11	Collect seed from core CBC foraging species and propagate for infill planting	Seed collection will occur prior to adjacent subdivisional works.	Seed Collection Report	EPBC Approval 2010/5777 CRMP	Sight Report	Not Required
12	Undertake weed control programme targeting invasive weeds recorded during Action 2.	Weed control will be undertaken prior to and during construction works	Weed Control Completion Report	CMP	Sight Report	Not Required
13	Undertake short term monitoring of weed control programme to identify any outbreaks following weed removal or suppression.	Weeds will be monitored by revegetation contractor	Weed Control Completion Report	CMP	Sight Report	Not Required
14	Implement revegetation site works plan.	Revegetation works will occur once subdivision construction has commenced	Photos and revegetation completion report	CMP	Sight photos and report	Not Required
15	Monitor health of planted species and replace dead plants as necessary.	Revegetation contractor to undertake supplement planting as needed	Photos	CMP	Sight photos	Not Required
16	Install signage to ensure that residents are aware of the POS conservation and rehabilitation activity.	Signage will be installed as part of adjacent subdivisional works	Photos	CMP	Sight photos	Not Required

Action		Comment	Evidence	Requirement	Verification Method	Status
17	Provide locked access for management vehicles into the POS conservation using access points away from major roads. The minimum required vehicle access is to be established.	Fencing and gates will be provided as part of subdivisional works	Photos	CMP	Sight photos	Not Required
18	Install tree guards when required to control rabbit grazing	Rabbit control will be implemented by revegetation contractor if required	Photos	CMP	Sight photos	Not Required
19	A 1.8m high chain mesh fence will be installed around the conservation fencing prior to construction.	Construction style fence to protect against construction vehicles entering and to assist with dust management	Photos	CMP	Sight photos	Not Required
20	Installation of dust curtains prior to clearing to protect remnant vegetation from sand drift during construction.	Dust curtains will be installed as part of subdivisional works	Photos	CMP	Sight photos	Not Required
21	Maintain fencing in functional condition and repair promptly if damage occurs. Fencing to be upgraded to rabbit-proof if and where required.	Fence monitoring and maintenance will be part of subdivisional works	Photos	CMP	Sight photos	Not Required
22	Dispose of food waste into covered waste facilities to ensure that feral or other animals are not attracted to the site.	Part of construction site general management	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required
23	Prepare and deliver an Environmental Induction Program to all personnel, which includes information on: <ul style="list-style-type: none"> Requirement to remain within marked clearing line; 	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required

Action		Comment	Evidence	Requirement	Verification Method	Status
	<ul style="list-style-type: none"> • identification of Carnaby's Black-Cockatoo birds and the care to be taken in avoiding clearing areas if they are present; and • -fauna encounter procedures. 					
24	All construction staff, sub-contractors and other personnel working on site will complete the Environmental Induction Program prior to commencing work on the site.	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required
25	Carnaby's Black-Cockatoos encountered during construction shall be allowed to make their own way from the works area.	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required
26	If Carnaby's Black-Cockatoos are present feeding on site, work in the immediate area shall cease until they have flown away from the area.	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required
27	If an injured Carnaby's Black-Cockatoo is encountered, the nominated carer or Wildlife Hotline shall be called to rescue the animal.	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required

Action		Comment	Evidence	Requirement	Verification Method	Status
28	Site maintenance to be carried out. This will include regular watering schedules, maintenance of tree guards and perimeter fence, weed management and rabbit control as required.	Part of construction site general management. Prepare basic work instruction if required.	Ensure environmental matters are included in weekly site meeting	CMP	Sight minutes of site meetings	Not Required
29	Install educational signage that clearly states that access is restricted to defined pathways, fauna/flora interpretation, importance of domestic animal control and include a contact number to report any dumping or inappropriate activity.	Post construction installation of educational signage.	Photos	CMP	Sight photos	Not Required
30	Discuss community monitoring of CBC activity with residents group	Discuss community monitoring of CBC with residents group and school	Meeting agenda and minutes	CMP	Sight minutes	Not Required
31	Monitor CBC activity on an annual basis	Visit conservation POS to determine CBC visits to the site through sightings, chewed banksia cones etc.	Photos to be included in annual monitoring report	CMP	Sight Photos	Not Required

5.2 Clearing and Revegetation Management Plan

The CRMP was approved in November 2013 prior to any clearing of CBC habitat within the referral area. A revised CRMP was approved by the Department on the 5 June 2019.

Construction of the Yanchep Rail Extension by the PTA will commence in the 2020 reporting period. Management actions will be implemented in accordance with the CRMP during the construction of the Yanchep Rail Extension during the next reporting period.

Development east of Marmion Avenue in the Eglinton Hill Precinct may commence in the 2020 reporting period. Management actions will be implemented in accordance with the CRMP and prior to vegetation clearing.

5.2.1 Compliance with Management Actions

Table 4 below provides an update on the status of the CRMP management actions.

During this audit period the following actions have been undertaken at Yellagonga Regional Park (see Attachment 9 for site work summary reports):

- Weed control program in autumn and spring 2018; and
- Permanent plots in stages 1a and 1b were monitored in March and October 2018 (Yellagonga Regional Park Sites 1a and 1b Monitoring Report – Year 2019 at Attachment 9).

5.2.2 Amendments to Plan

Due to the variation to conditions 3, 9, 11, 12 and 14, a revised CRMP was submitted to the Department for approval on 2 June 2019. The Department approved the CRMP on the 5 June 2019.

5.2.3 Potential Non-Compliance or Non-Compliance

There are no potential or non-compliance issues in this reporting period.

Clearing of vegetation in the Eglinton Hill Precinct will trigger rehabilitation in stages 2 and 3 at YRP in the upcoming reporting period.

Table 4: Clearing and Revegetation Management Plan - Compliance Audit Table

Key Tasks	Action	Action	Comment	Evidence	Requirement	Verification Method	Status
Species Selection Strategy	1	Determine Plant Communities once present at YRP revegetation sites.	Survey similar habitat in reference site.	Reference Site Flora List	CRMP	Sight List	Complete
	2	Identify CBC foraging species present in each plant community.	Review DPaW CBC List against reference site and YRP Bush Forever Flora List	Combined Species List	CRMP	Sight List	Complete
	3	Develop an agreed approach for selecting species for revegetation from Eglinton and YRP species lists.	Process identified in the CRMP	CRMP	CRMP	Sight CRMP	Complete
	4	Identify revegetation technique for each species.	Focus on species that have high rate of return to provide early CBC habitat and are cost effective to establish.	Tranen revegetation notes	CRMP	Sight revegetation notes	Complete
	5	Set Completion Targets	Use reference site to determine end of revegetation project	CRMP	CRMP	Sight Completion targets (Attachment 13)	Complete
	6	Design monitoring program	To ensure success of revegetation works.	Long term monitoring quadrats and program	CRMP	Photos and sight monitoring schedule Annual Monitoring Report (Attachment 9)	Complete
	7	Provide the species list and completion criteria in the annual Compliance Report provided to	Keeping the Department informed	This compliance report	CRMP	Sight species list and completion criteria	Complete

Key Tasks	Action	Action	Comment	Evidence	Requirement	Verification Method	Status
		the Department to meet Condition 3 of the EPBC 2010/5777 approval.	an ensuring compliance with EPBC Approval. Completion criteria is being finalised in consultation with DPaw and will be provided in the third Compliance Report.			(Attachment 13)	
YRP Planting Schedule	8	Prepare planting design and schedule for YRP sites based on agreed species list	To inform the design of the CBC habitat.	Revegetation Plan	CRMP	Sight Plan and photos from site.	Complete
	9	Discuss with the DPAW and agree on planting design and schedule	To have an agreed approach to the YRP revegetation	Email correspondence on species list	CRMP	Site correspondence Annual Monitoring Report (Attachment 9)	Complete
	10	Provide the planting design in the annual Compliance Report provided to the Department to meet Condition 3 of the EPBC 2010/5777 approval.	Keeping the Department informed an ensuring compliance with EPBC Approval	Planting design for sites 1a and 1b attached to this audit report	CRMP	Site Planting Design	Complete
	11	Provide landscape design package for POS areas AA, AC, AD, AF and T in the annual Compliance Report at the relevant stage of subdivision to demonstrate revegetation of 10% of each POS with CBC foraging species. The package will include	To create 1.9 ha of CBC foraging species at Eglinton. Construction of POS AA (known as POS 7) is being undertaken in accordance with the landscape plan attached	Landscape masterplan for POS 7	CRMP	Sight Landscape Plan (Attachment 11). See photos of tubestock planting (Attachment 11)	Compliant

Key Tasks	Action	Action	Comment	Evidence	Requirement	Verification Method	Status
		layout of POS, CBC species to be established, completion criteria as per City of Wanneroo requirements, ongoing maintenance and timeline for transfer of POS to the City of Wanneroo.	at Attachment 11. The planting guide indicates that 35% of POS 7 will be planted with Black Cockatoo foraging species consisting of 103 trees, 175 shrubs and 6 815 tubestock.				
	12	Establish 50% of streetscapes with suitable CBC foraging species.	To date the streetscapes constructed in the Referral area is restricted to the Amberton entry road.	Email correspondence Landscape Masterplan	CRMP	Site Landscape Masterplan for street tree plantings (Attachment 11)	Compliant
YRP Revegetation Plan	13	Contract a qualified rehabilitation and revegetation contractor to undertake on-ground planning for and revegetation works across the YRP sites.	Tranen have been engaged for rehabilitation works at YRP.	Contract	CRMP	Sight Contract	Complete
	14	Prepare revegetation site works plan, schedule and costs.	Detailed plan of works	Work schedule for sites 1a and 1b	CRMP	Sight work schedule	Complete
	15	Review site works and revegetation plan with DPAW.	Agreed approach for the revegetation and site works.	Email correspondence	CRMP	Sight email correspondence	Complete
	16	Discuss community participation with DPAW. DPAW to keep local community informed of project and to manage communication with Local Groups (note DPAW to manage community process).	Keep community informed about project	Presentation to YRP Community Advisory Committee	CRMP	Meeting presentation	Compliant

Key Tasks	Action	Action	Comment	Evidence	Requirement	Verification Method	Status
				on 9 June 2016.			
	17	Implement weed management, ripping, and fencing as per site works plan	Sites 1a and 1b at YRP have been prepared. Weed control program has been implemented.	Attachment 9 – Site works reports	CRMP	Sight Attachment 9	Compliant
	18	Signs indicating that rehabilitation work is occurring should be erected along the fence lines (e.g. No access – rehabilitation in progress). DPAW Regional Parks Unit standard signs to be used.	Keeping the public informed. Design of sign approved by DPaW. Signs to be placed around rehab sites.	Sign	CRMP	Sight Sign	Compliant
	19	Minimise the use of herbicides in riparian areas.	Protect wetland ecosystems from herbicide run-off. Note sites 1a and 1b are upland habitats				Not required
	20	Supplement with tubestock planting	To maximise species for CBC habitat.	Attachment 9 – Site works reports	CRMP	Sight Attachment 9 – Site works reports	Compliant
	21	Implement vegetation monitoring program.	Long term monitoring quadrats were set up in October 2014. 2 nd year monitoring report attached at Attachment 9.	year 5 monitoring report attached at Attachment 9.	CRMP	Sight year 6 Monitoring Report (Attachment 9)	Compliant
	22	Undertake short term monitoring of weed control success to	To manage weed outbreaks post planting	Attachment 9 – Site	CRMP	Attachment 9– Site works reports	Compliant

Key Tasks	Action	Action	Comment	Evidence	Requirement	Verification Method	Status
		identify any outbreaks following weed removal or suppression.		works reports			
	23	Supplement with infill planting when required.	To ensure completion criteria is met.	Site Monitoring	CRMP	Site Monitoring Report	Not Required Completion criteria has been met
	24	Site maintenance to be carried out. This will include maintenance of tree guards and perimeter fence, weed management and rabbit control as required.	To minimise impacts to new CBC habitat	Attachment 9 – Site works reports	CRMP	Attachment 9 – Site works reports	Compliant
	25	Design a monitoring survey for future CBC activity.	To determine if new habitat is being visited by CBC				Not Required
	26	Discuss community monitoring of CBC activity once YRP phase is complete.	To encourage community ownership of new habitat				Not Required
	27	Monitor CBC activity on a biannual basis five years post revegetation.	To determine if revegetation project has met primary objective of providing CBC with foraging opportunities				Not Required
	28	Handover YRP sites to the DBCA					Not Required

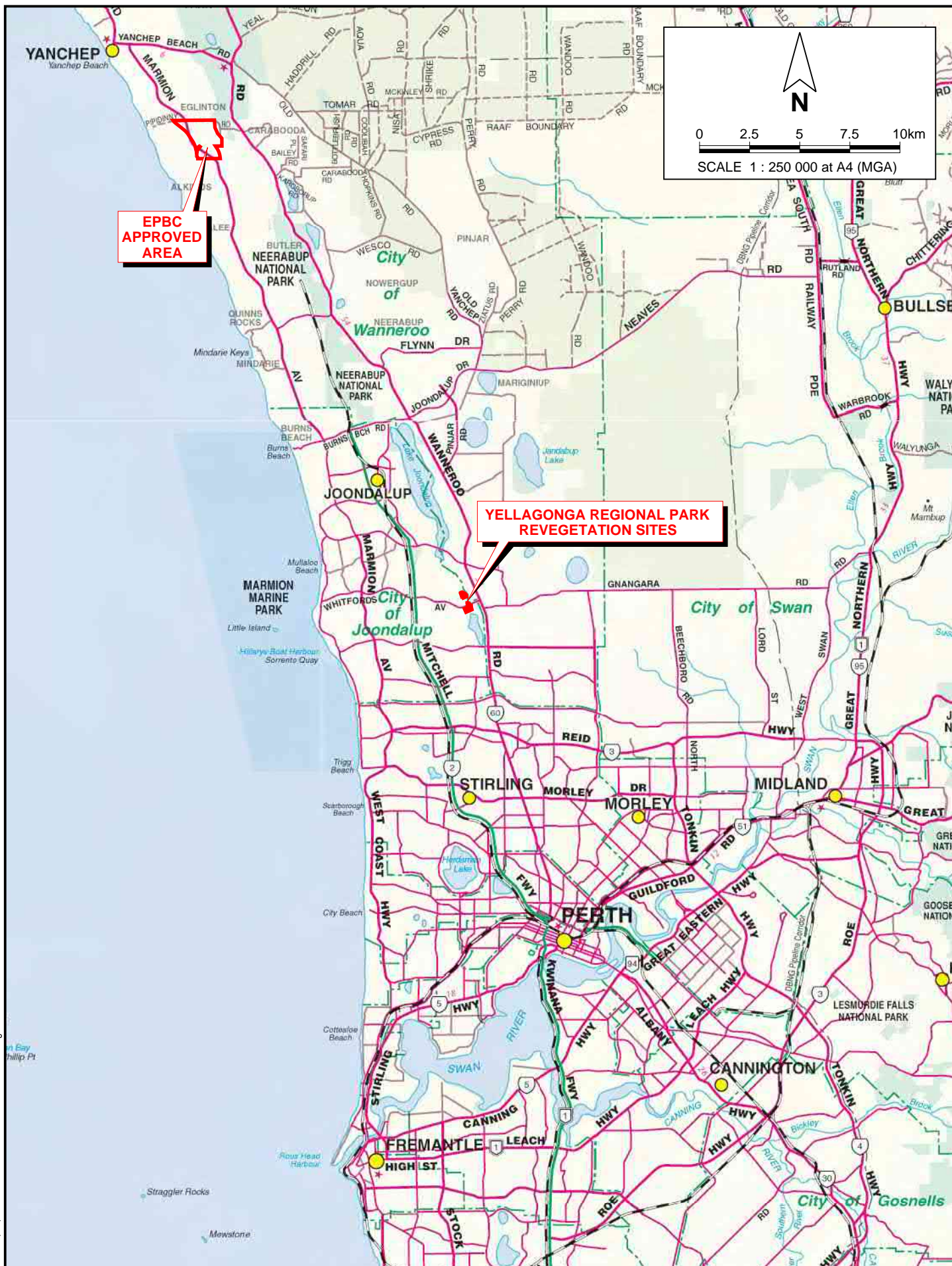
6 PUBLIC AVAILABILITY OF THE REPORT

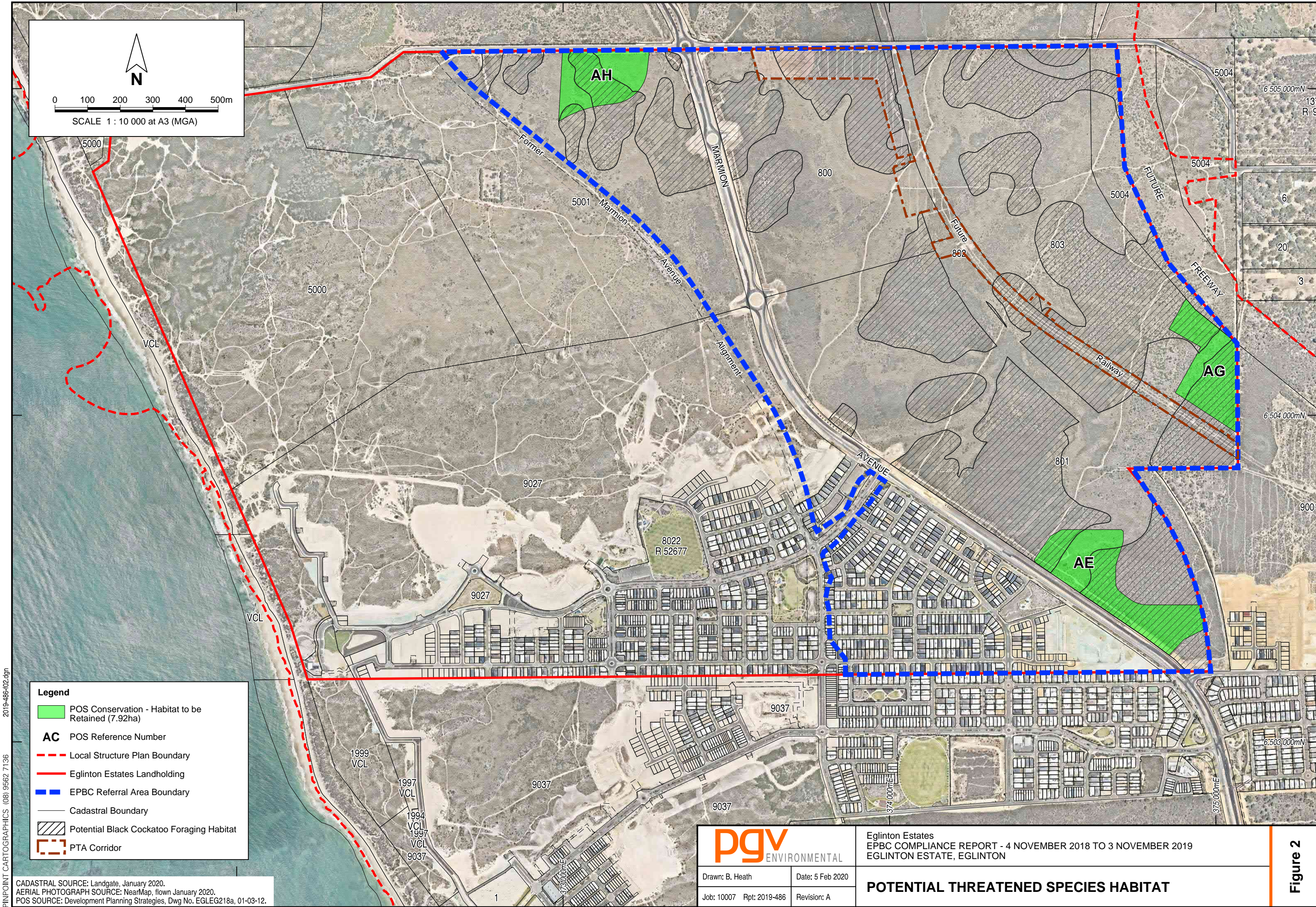
In accordance with Condition 3 of EPBC 2010/5777, Eglinton Estates must publish an annual compliance report on the project website by 4 February of each year following the commencement of the project.

Accordingly, this is the fifth compliance report addressing compliance with EPBC 2010/5777, a copy of the most recent compliance report will be placed on the Stockland website at:

<https://www.stockland.com.au/residential/wa/amberton-beach/news-and-events/conservation-at-amberton>

FIGURES





2019-486-02.dgn
PINPOINT CARTOGRAPHICS (08) 9562 7136

CADASTRAL SOURCE: Landgate, January 2020.
AERIAL PHOTOGRAPH SOURCE: NearMap, flown January 2020.
POS SOURCE: Development Planning Strategies, Dwg No. EGLEG218a, 01-03-12.

pgv ENVIRONMENTAL	
Drawn: B. Heath	Date: 5 Feb 2020
Job: 10007 Rpt: 2019-486	Revision: A

Eglinton Estates EPBC COMPLIANCE REPORT - 4 NOVEMBER 2018 TO 3 NOVEMBER 2019 EGLINTON ESTATE, EGLINTON	
POTENTIAL THREATENED SPECIES HABITAT	

ATTACHMENT 1
DECLARATION OF ACCURACY

Declaration of Accuracy

In making this declaration, I am aware that sections 490 and 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. 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.

Signed:



Full name (please print): Anastasios Cokis

Position (please print): Director

Organisation : Woodsome Management Pty Ltd CAN 068149486

Date:

30/1/2020

ATTACHMENT 2
EPBC APPROVAL 2010/5777
30 APRIL 2013



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Approval

Eglinton Estates Residential Development, Lot 1007 & Part Lot 1008, Pipidinny Road, Eglinton, WA (EPBC 2010/5777)

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Proposed action

person to whom the approval is granted Eglinton Estates Pty Ltd

proponent's ACN (if applicable) ABN: 48 009 460 397

proposed action The clearing of approximately 298 ha of native vegetation for the urban development of Lot 1007 and the eastern portion of Lot 1008, Pipidinny Road, Eglinton, WA, [See EPBC Act referral 2010/5777], within the footprint shown as a blue dotted line in Attachment A.

Approval decision

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approved

conditions of approval This approval is subject to the conditions specified below.

expiry date of approval

This approval has effect until 28 February 2038.

Decision-maker

name and position Barbara Jones
Assistant Secretary
North, West and Offshore Assessment Branch

signature

date of decision 30/4/2013

Conditions attached to the approval

1. Within 30 days after the **commencement** of the action, the person taking the action must advise the **department** in writing of the actual date of **commencement**.
2. The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the **department**. Such records may be subject to audit by the **department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **department's** website. The results of audits may also be publicised through the general media.
3. Within three months of every 12 month anniversary of the **commencement** of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Non-compliance with any of the conditions of this approval must be reported to the **department** at the same time as the compliance report is published.
4. Upon the direction of the **Minister**, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
5. If the person taking the action wishes to carry out any activity otherwise than in accordance with the management plans as specified in the conditions, the person taking the action must submit to the **department** for the **Minister's** written approval a revised version of that management plan. The varied activity shall not commence until the **Minister** has approved the varied management plan in writing. The **Minister** will not approve a varied management plan unless the revised management plan would result in an equivalent or improved environmental outcome over time. If the **Minister** approves the revised management plan, the revised management plan must be implemented in place of the management plan originally approved.
6. If the **Minister** believes that it is necessary or convenient for the better protection of listed threatened species to do so, the **Minister** may request that the person taking the action make specified revisions to the management plan/s specified in the conditions and submit the revised management plan/s for the **Minister's** written approval. The person taking the action must comply with any such request. The revised approved management plan/s must be implemented. Unless the **Minister** has approved the revised management plan/s, then the person taking the action must continue to implement the management plan/s originally approved, as specified in the conditions.
7. If, at any time after 5 years from the date of this approval, the person taking the action has not **substantially commenced** the action, then the person taking the action must not **substantially commence** the action without the written agreement of the **Minister**.

8. Unless otherwise agreed to in writing by the **Minister**, the person taking the action must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved.
9. To mitigate impacts to Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*), the person taking the action must not **clear** any land that is proposed to be **retained** that is also habitat for Carnaby's Black Cockatoo, (as shown in Attachment B).
10. To protect and enhance habitat for **listed threatened species** that is **retained** on the proposal site, the person taking the action must:
 - (a) prepare and submit, within 12 months of the date of this approval, a *Conservation Management Plan* detailing management of habitat for **listed threatened species** that is **retained** on the **proposal site** for the **Minister's** approval. The plan must include:
 - i. measures to physically delineate (through fencing or other means) areas that will be **retained**;
 - ii. erosion and dust control measures during construction;
 - iii. the management of weeds, *Phytophthora* dieback, bushfire and feral animals;
 - iv. identification of any degraded habitat for **listed threatened species** and **revegetation** of those areas;
 - v. a monitoring program for **listed threatened species** and their habitat;
 - vi. performance indicators and corrective actions;
 - vii. roles and responsibilities;
 - viii. time frames for the implementation of the above measures; and
 - ix. how condition 10(b) will be implemented, including who will be responsible for the long-term management of the **retained** land, and how the land will be protected in the long-term.

If the Minister approves the plan, the approved plan must be implemented.

- (b) within 5 years of the **substantial commencement** of the action, the person taking the action must provide the **department** with written evidence, including certificates of title, that the 'POS Conservation' areas (marked in green in Attachment A) has been transferred to the City of Wanneroo for the purpose of conservation.
11. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must fully implement the **revegetation** of at least 12.7 ha of native vegetation (including **primary feeding plants** for Carnaby's Black Cockatoo) in the Yellagonga Regional Park (in consultation with the **DEC**) using seed and topsoil collected in accordance with the *Clearing and Revegetation Management Plan* required under condition 12.
12. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must prepare and submit a *Clearing and Revegetation Management Plan* (the plan) for the **Minister's** approval. The plan must include:
 - (a) a commitment to the staged collection of native seed prior to **clearing**, and collection of topsoil following clearing, from within Carnaby's Black Cockatoo foraging habitat as shown in Attachment B (checked in black, but excluding those areas shaded green in Attachment B), for use in **revegetation**;
 - (b) a commitment to store native seed and topsoil, and transport it to a receiving site(s) where **revegetation** is being undertaken by the **DEC** or another receiving party (or parties), and at least 50% of the collected seed and topsoil must be used within 20 km of the **proposal site**;

(c) detailed protocols for staged collection and use of native seed and topsoil required by conditions 12(a) and 12(b) to be developed in consultation with an **independent revegetation expert** (approved in writing by the department) and the **DEC** or other receiving party (or parties) including:

- i. the optimal methodology for native seed and topsoil collection from the **proposal site**;
- ii. how clearing will be staged to best harvest utilise the native seed and topsoil resource for **revegetation**;
- iii. how native seed and topsoil will be stored and transported,
- iv. measures to manage any topsoil from the site that contains invasive weeds (at a level that makes that soil not suitable for use in **revegetation**) or soil infestations such as *Phytophora*; and
- v. onsite supervision and implementation monitoring mechanisms.

(d) a commitment to **revegetate** at least 1.9 ha of native vegetation within Public Open Space on the **proposal site**;

(e) methodology for **revegetation**, both on-site, and in Yellagonga Regional Park (as required under condition 11), using native seed and topsoil collected in accordance with the protocols required by condition 12(c), along with:

- i. survival targets proposed for plantings;
- ii. performance indicators and corrective measures;
- iii. roles and responsibilities; and
- iv. timeframes for the implementation and management of the above measures.

(f) a commitment for at least 50% of plantings for trees and shrubs in street-scaping to consist of plants known to be **primary feeding plants** for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoos.

If the **Minister** approves the plan, then the approved plan must be implemented.

13. To offset the loss of habitat for Carnaby's Black Cockatoo, within 12 months of the date of this approval, the person taking the action must:

(a) provide monies to the **DEC** to fully fund the acquisition of:

- i. an offset property that contains at least 850 ha of good quality foraging habitat for Carnaby's Black Cockatoo, that is within the 'Regans Ford' locality according to Landgate's WA Atlas; or
- ii. another parcel of land approved in writing by the **department**; and

(b) provide the **department** with a textual description and map clearly defining the location and boundaries of the offset property described in condition 13(a), which must be accompanied with the **offset attributes** and a **shapefile**.

14. The person taking the action must not undertake any **clearing** of habitat for Carnaby's Black Cockatoo (as shown in Attachment B hatched in black) apart from of the area outlined in yellow in Attachment D, unless:

(a) the *Clearing and Revegetation Management Plan* required under condition 12 has been approved by the **Minister**; and

(b) for each proposed clearing stage, the **department** has been provided written evidence that the **DEC** or other receiving party (or parties) agree(s) to utilise the seed and soil for the purposes of **revegetation** in accordance with the protocols developed under condition 12(c).

15. To mitigate impacts to the Graceful Sun Moth (*Synemon gratiosa*) and offset the loss of habitat for that species, the person taking the action must:

- (a) not **clear** any land that is proposed to be **retained** that is also habitat for the Graceful Sun Moth (as shown in Attachment C);
- (b) provide monies to the **DEC** to maintain and improve the quality of at least 180 ha of Graceful Sun Moth habitat within the Wilbinga Conservation Park. This funding must be adequate to fully fund, for a period of 20 years, all management actions deemed necessary by the **DEC** to mitigate known threats to Graceful Sun Moths and their habitat; and improve habitat quality through **revegetation** or restoration. All funding must be provided within 12 months of the date of this approval; and
- (c) prepare and submit, within 6 months of the date of this approval, a *Wilbinga Conservation Park Graceful Sun Moth Habitat Management Funding Plan* (the plan) detailing how condition 15(b) will be satisfied, for the **Minister's** approval. The plan must include:
 - i. what management actions are likely to be funded;
 - ii. the amount of funding that will be provided;
 - iii. written evidence that the **DEC** agree that the funding is adequate for them to undertake the management actions.

If the **Minister** approves the plan, the approved plan must be implemented.

Definitions

Clearing of native vegetation, including the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of native vegetation.

Construction includes any preparatory works required to be undertaken including the erection of any onsite temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for buildings or infrastructure.

Substantial commencement of the action is when more than 1 ha of land on the proposal site has been impacted by **clearing** or **construction**.

DEC is the Western Australian Government's Department of Environment and Conservation (or equivalent agency).

Department is the Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.

EPBC Act is the *Environment Protection and Biodiversity Conservation Act 1999*.

Independent revegetation expert. A scientist with relevant qualifications and expertise in best-practise **revegetation** (including the use of native seed and topsoil in **revegetation**), who is not affiliated with the person taking the action.

Listed Threatened Species are species listed under the EPBC Act including Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) and the Graceful Sun Moth (*Synemon gratiosa*).

Minister is the Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the Minister.

Offset attributes means an '.xls' file capturing relevant attributes of the Offset Area, including the EPBC reference ID number, the physical address of the offset site, coordinates of the boundary points in decimal degrees, the EPBC protected matters that the offset compensates for, any additional EPBC protected matters that are benefiting from the offset, and the size of the offset in hectares.

Primary feeding plants for Carnaby's Black Cockatoo include: any *Banksia*; any plants identified in a relevant search of the DEC's Plants for Carnaby's Search Tool (at <http://www.dec.wa.gov.au/management-and-protection/threatened-species/5983-plants-for-carnabys-search-tool.html>); or other plants approved in writing by the **Department**.

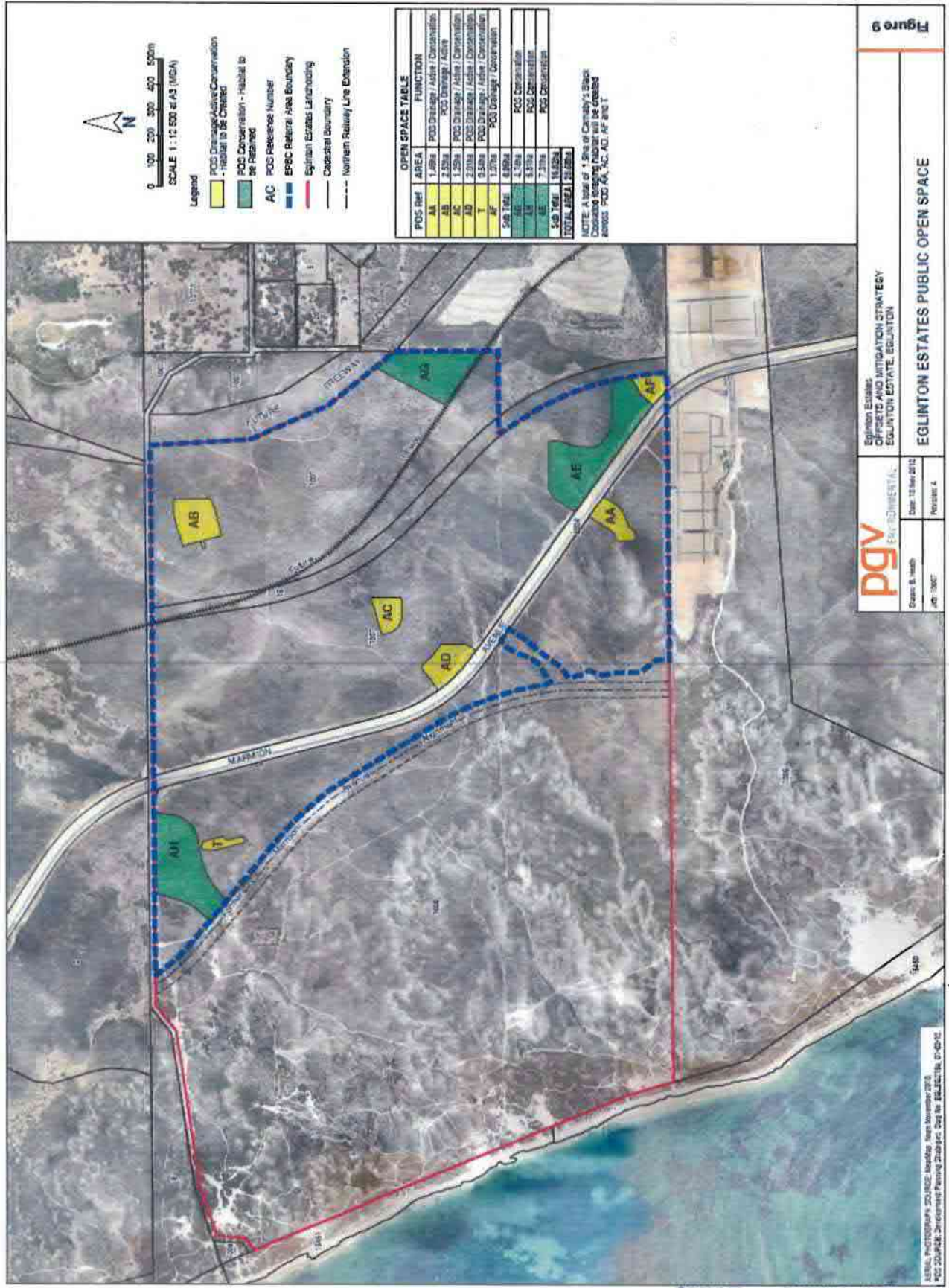
Proposal site is the area shown at Attachment A as EPBC Referral Area Boundary.

Retained land means: the 'POS Conservation' areas marked in green in Attachment A.

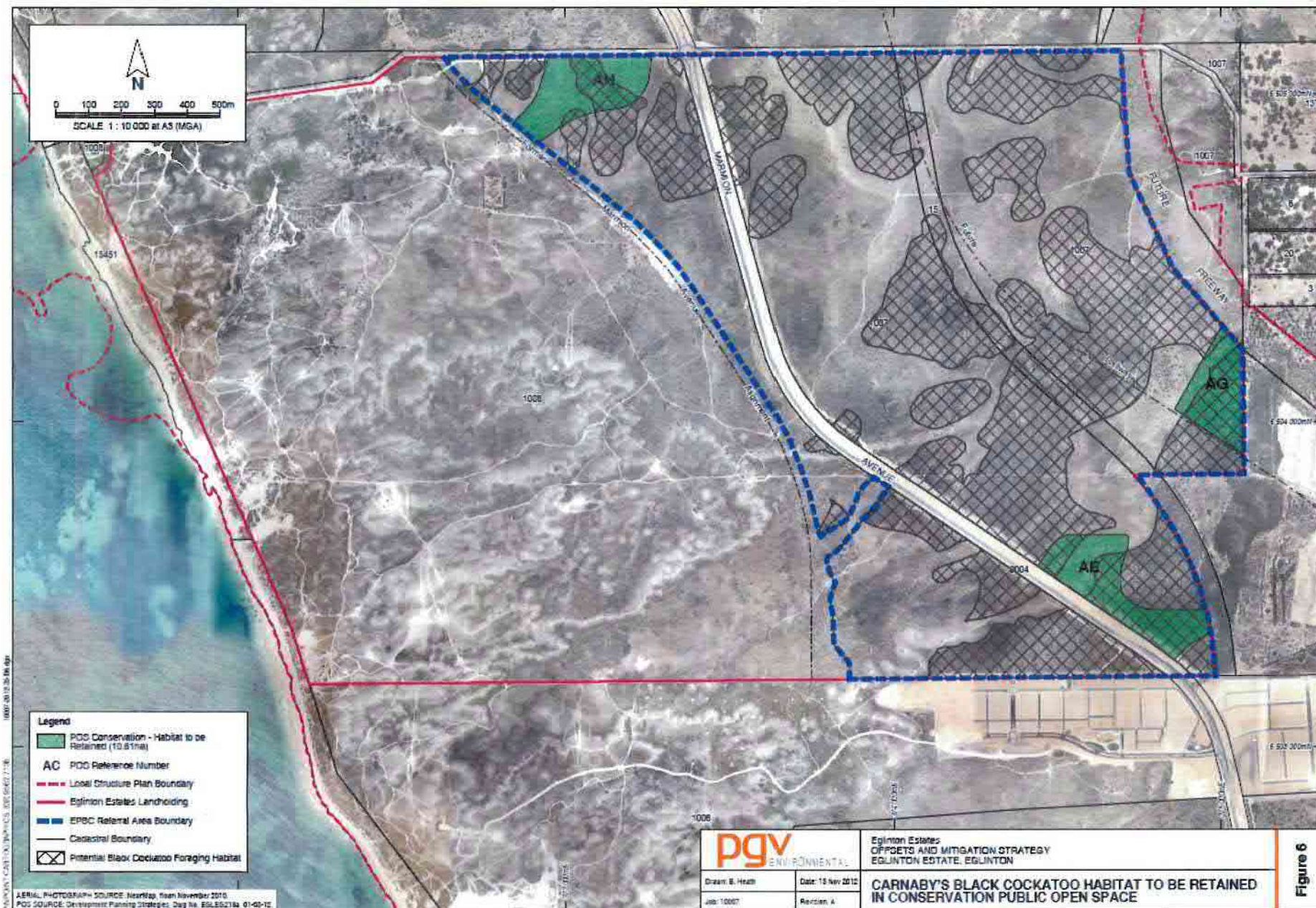
Revegetation is the removal of weeds and the long-term establishment of native vegetation.

Shapefile means an ESRI Shapefile containing '.shp', '.shx' and '.dbf' files and other files capturing attributes of the Offset Area, including the shape, EPBC reference ID number and EPBC protected matters present at the relevant site. Attributes should also be captured in '.xls' format.

Attachment A



Attachment B



Attachment C



Attachment D



ATTACHMENT 3
EPBC APPROVAL 2010/5777
VARIATION 7 JULY 2013



VARIATION TO CONDITIONS ATTACHED TO APPROVAL

Eglinton Estates Residential Development, Lot 1007 & Part Lot 1008, Pipidinny Road, Eglinton, WA (EPBC 2010/5777)

This decision to vary a condition of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the approval is granted Eglinton Estates Pty Ltd
ABN: 48 009 460 397

Approved action The clearing of approximately 298 ha of native vegetation for the urban development of Lot 1007 and the eastern portion of Lot 1008, Pipidinny Road, Eglinton, WA, [See EPBC Act referral 2010/5777], within the footprint shown as a blue dotted line in Attachment A of the approval notice, dated 30 April 2013.

Variation

Variation of conditions of approval The variation is:
Revoke condition 15 attached to the approval dated 30 April 2013.
Revoke Attachment C attached to the approval dated 30 April 2013.
Delete the definition for 'listed threatened species' attached to the approval dated 30 April 2013 and substitute with the definition specified below.
Delete Attachments A, B, and D attached to the approval decision notice, dated 30 April 2013 and substitute with Attachment A, B and D specified below.

Date of effect This variation has effect on the date the instrument is signed.

Person authorised to make decision

name and position Barbara Jones
Assistant Secretary
North, West and Offshore Assessment Branch

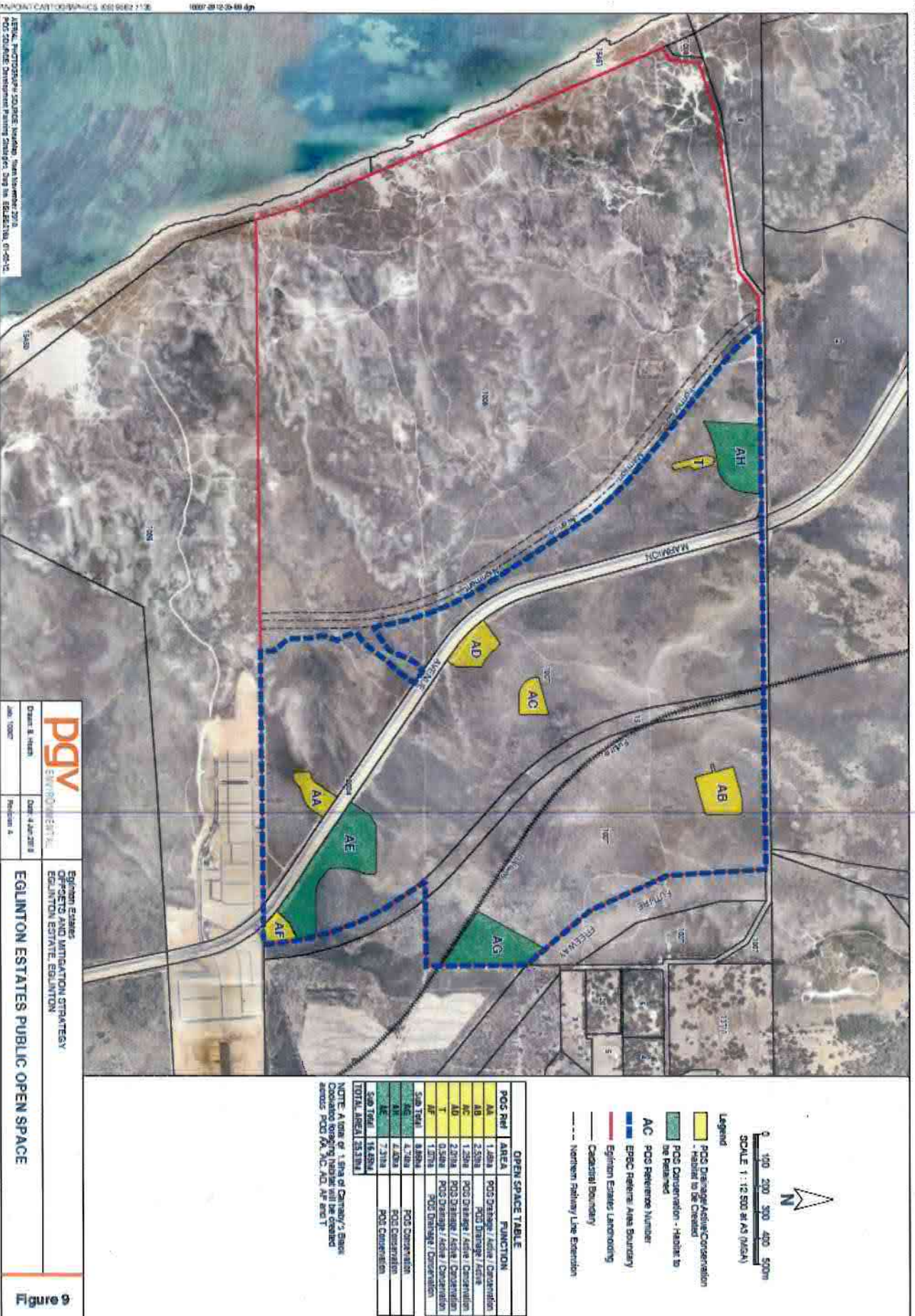
Signature

Date of decision 17/7/2013

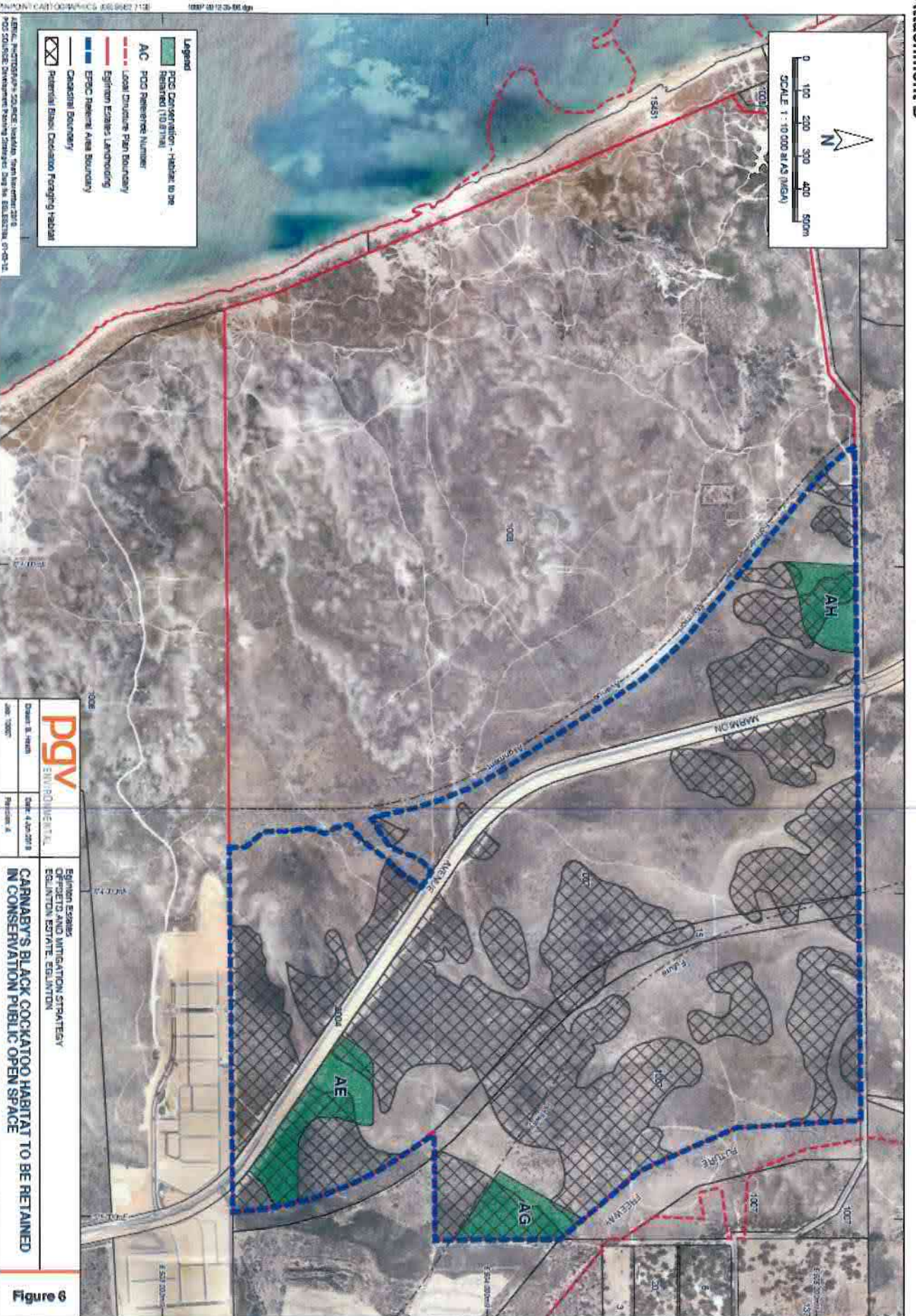
Definition attached to the approval

Listed Threatened Species are species listed under the EPBC Act including Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*).

Attachments attached to the approval
Attachment A



Attachment B





ATTACHMENT 4
EPBC APPROVAL 2010/5777
VARIATION 20 OCTOBER 2015



Australian Government
Department of the Environment



Our reference: 2010/5777

Contact Officer: Rochelle Tomkins
Telephone: (02) 6275 9455 Facsimile: (02) 6274 1878
Email: post.approvals@environment.gov.au

Mr Darren Walsh
CEO / Managing Partner
PO Box 243
SUBIACO WA 6904

Dear Mr Walsh

EPBC 2010/5777 – Eglinton Estates: Clearing of Native Vegetation from Lot 1007 and Part Lot 1008 – Variation to Approval Conditions 12 and 13

I refer to your letter of 25 May 2015 to the Department, on behalf of Eglinton Estates Pty Ltd requesting a variation to conditions 12 and 13 of the approval dated 30 April 2013.

Officers of the Post Approvals Section have assessed your request and provided advice regarding the variation. As delegate of the Minister for the Environment, I have decided to approve your request to vary conditions 12 and 13 of the approval in accordance with the provisions of the national environment law, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The variation of conditions of approval does not relieve the person to whom it has been granted from an obligation to comply with any other law of the Commonwealth, state or territory that is applicable to do the action and to have any right, title or interest that is required to access land or waters and to do the action.

Please ensure that you maintain accurate records of all activities associated with, or relevant to the conditions of approval, so that they can be made available to the department on request. Such documents may be subject to audit and used to verify compliance. Summaries of results of audits may be published by the department. Information about the monitoring and audit program can be found on the department's website at www.environment.gov.au/epbc/compliance/auditing.html.

If you have any enquiries please contact Rochelle Tomkins on 02 6275 9455.

Yours sincerely

Kynan Gowland
A/g Assistant Secretary
Compliance & Enforcement Branch
Environment Standards Division

20 October 2015



VARIATION TO CONDITIONS ATTACHED TO APPROVAL

Eglinton Estates Residential Development, Lot 1007 & Part Lot 1008, Pipidinny Road, Eglinton, WA (EPBC 2010/5777)

This decision to vary a condition of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the approval is granted	Eglinton Estates Pty Ltd ABN: 48 009 460 397
---	---

Approved action	The clearing of approximately 298 ha of native vegetation for the urban development of Lot 1007 and the eastern portion of Lot 1008, Pipidinny Road, Eglinton, WA [See EPBC Act referral 2010/5777], within the footprint shown as a blue dot line in <u>Attachment A</u> .
------------------------	---

Variation

Variation of conditions of approval	The variation is: Delete conditions 12 and 13 attached to the approval dated 30 April 2013 and substitute with the conditions specified below.
--	---

Date of effect	This variation has effect on the date the instrument is signed
-----------------------	--

Person authorised to make decision

name and position	Kynan Gowland Assistant Secretary (A/g) Compliance & Enforcement Branch
--------------------------	---

Signature	
------------------	---

Date of decision	20/10/ 2015
-------------------------	-------------

Condition attached to the approval

12. To mitigate impacts to Carnaby's Black Cockatoo, the person taking the action must prepare and submit a *Clearing and Revegetation Management Plan* (the plan) for the **Minister's** approval. The plan must include:
- a) A commitment to the staged collection of native seed prior to **clearing** from within Carnaby's Black Cockatoo foraging habitat as shown in Attachment B (checked in black, but excluding those areas shaded green in Attachment B), and the collection of topsoil from 33 ha of the project site, from within 73 ha of good or better condition Carnaby's Black Cockatoo habitat as shown in Attachment B (checked in black), for use in **revegetation**.
 - b) A commitment to store native seed (excluding that which is required for revegetation on-site and within Yellongonga Regional Park) and transport it to a seed bank or receiving site(s) where **revegetation** is being undertaken by the **DPaW** or another receiving party (or parties).
 - c) Detailed protocols for staged collection and use of native seed and topsoil required by conditions 12a, 12d and 12e to be developed in consultation with an **independent revegetation expert** (approved in writing by the Department) and the **DPaW** or other receiving party (or parties) including:
 - i. The optimal methodology for native seed and topsoil collection from the **proposal site**
 - ii. How clearing will be staged to best utilise the native seed and topsoil resource for **revegetation**
 - iii. How native seed and topsoil will be stored and transported
 - iv. Measures to manage any topsoil from the site that contains invasive weeds (at a level that makes that soil not suitable for use in **revegetation**) or soil infestation such as *Phytophthora*, and
 - v. On-site supervision and implementation of monitoring mechanisms.
 - d) A commitment to **revegetate** at least 1.9 ha of native vegetation within Public Open Space on the proposal site.
 - e) Methodology for revegetation, both on-site, and in Yellagonga Regional Park (as required under condition 11), using native seed and topsoil collected in accordance with the protocols require by condition 12c, along with:
 - i. Survival targets proposed for plantings
 - ii. Performance indicators and corrective measures
 - iii. Roles and responsibilities, and
 - iv. Timeframes for the implementation and management of the above measures.
 - f) A commitment for at least 50% of planting of trees and shrubs in street-scaping to consist of plants known to be **primary feeding plants** for Carnaby's Black Cockatoo. Site selection for street-scaping must take account of any risk of vehicle strike to Carnaby's Black Cockatoos.

If the **Minister** approves the plan, then the approved plan must be implemented.

13. To offset the loss of habitat for Carnaby's Black Cockatoo, the person taking the action must, by January 2016:
- a) Provide monies to the DPaW to fully fund the acquisition of:
 - i. An offset property (or properties) that contains at least 886 ha of good quality foraging habitat for Carnaby's Black Cockatoo, that is within the 'Regans Ford' or Gingin area, or
 - ii. Another parcel of land approved in writing by the **Department**.

- b) Provide the **Department** with a textual description and map clearly defining the location and boundaries of the offset property (or properties) described in condition 13(a), which must be accompanied with the **offset attributes** and a **shapefile**.

ATTACHMENT 5
2018 COMPLIANCE REPORT
APPROVAL

ATTACHMENT 6
VARIATION APPROVAL
25 OCTOBER 2018



Australian Government

Department of the Environment and Energy

Belinda Heath
Senior Environmental Consultant
PGV Environmental
Unit 1, 61 Guthrie Street
OSBORNE PARK WA 6017

**Eglinton Estates Residential Development, Eglinton, WA (EPBC 2010/5777)
Variation of condition 10**

Dear Ms Heath

Thank you for your letter dated 16 October 2018 to the Department, for and on behalf of Eglinton Estates Pty Ltd, requesting variation of condition 10(b) of the approval dated 30 April 2013.

Officers of this Department have reviewed the variation request. As delegate of the Minister, I have varied condition 10 of EPBC Approval 2010/5777 under section 143(1)(c) of the *Environment Protection and Biodiversity Conservation Act 1999* to extend the timeframe for the transfer of 'POS Conservation' areas to the City of Wanneroo to align with the development of the land adjacent to the conservation area. Condition 10 must now be undertaken in accordance with the varied condition specified in the variation notification, which has been attached for your information.

As you are aware, the Department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval so that they can be made available to the Department on request.

Should you require any further information please contact Peter Blackwell, Assistant Director, Post Approvals Section, on 03 6208 2927 or by email: post.approvals@environment.gov.au.

Yours sincerely

Greg Manning
Assistant Secretary
Assessments (WA, SA, NT) and Post Approvals Branch
Environment Standards Division

25/10/2018



VARIATION OF CONDITIONS ATTACHED TO APPROVAL

Eglinton Estates Residential Development, Lot 1007 & Part Lot 1008, Pipidinny Road, Eglinton WA. (EPBC 2010/5777)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the
approval is granted

Eglinton Estates Pty Ltd

ABN: 48 009 460 397

Approved action

The clearing of approximately 298 ha of native vegetation for the urban development of Lot 1007 and the eastern portion of Lot 1008, Pipidinny Road, Eglinton, WA [See EPBC Act referral 2010/5777], within the footprint shown as a blue dotted line in Attachment A

Variation

Variation of conditions
attached to approval

The variation is:

Delete condition 10 attached to the approval and substitute with the condition specified below

Date of effect

This variation has effect on the date the instrument is signed

Person authorised to make decision

Name and position

Greg Manning
Assistant Secretary
Assessments (WA, SA, NT) and Post Approvals Branch

Signature

Date of decision

25/10/2018

Conditions attached to the approval

10. To protect and enhance habitat for **listed threatened species** that is **retained** on the proposal site, the person taking the action must:

- (a) prepare and submit, within 12 months of the date of this approval, a *Conservation Management Plan* detailing management of habitat for **listed threatened species** that is **retained** on the **proposal site** for the **Minister's** approval. The plan must include:
 - i. measures to physically delineate (through fencing or other means) areas that will be **retained**;
 - ii. erosion and dust control measures during construction;
 - iii. the management of weeds, *Phytophthora* dieback, bushfire and feral animals;
 - iv. identification of any degraded habitat for **listed threatened species** and **revegetation** of those areas;
 - v. a monitoring program for **listed threatened species** and their habitat;
 - vi. performance indicators and corrective actions;
 - vii. roles and responsibilities;
 - viii. time frames for the implementation of the above measures; and
 - ix. how condition 10(b) will be implemented, including who will be responsible for the long-term management of the **retained** land, and how the land will be protected in the long-term.

If the Minister approves the plan, the approved plan must be implemented.

- (b) within 10 years of the **substantial commencement** of the action, the person taking the action must provide the **department** with written evidence, including certificates of title, that the 'POS Conservation' areas (marked in green in Attachment A) have been transferred to the City of Wanneroo for the purpose of conservation.

ATTACHMENT 7
VARIATION APPROVAL
17 JUNE 2019



Australian Government

Department of the Environment and Energy

Belinda Heath
Senior Environmental Consultant
PGV Environmental
Unit 1, 61 Guthrie Street
OSBORNE PARK WA 6017

**Eglington Estates Residential Development, Eglington, WA (EPBC 2010/5777)
Variation of conditions 3, 9, 11, 12 and 14 and approval of revised Conservation
Management Plan and Clearing and Revegetation Management Plan**

Dear Ms Heath

Thank you for your letter dated 17 April 2019 to the Department, for and on behalf of Eglington Estates Pty Ltd, requesting:

- variation of conditions 9, 11, 12 and 14 and Attachment A, Attachment B and Attachment D of the approval dated 30 April 2013;
- approval of *Eglington Estates Conservation Management Plan, 5 June 2019* in accordance with condition 10 and approval of *Eglington Estates Clearing and Revegetation Management Plan, 5 June 2019* in accordance with condition 12 (the plans).

Officers of this Department have reviewed the variation request. As delegate of the Minister for the Environment, I have varied conditions of EPBC Approval 2010/5777 under section 143(1)(c) of the *Environment Protection and Biodiversity Conservation Act 1999*. The variation is to align the retained conservation area AG with the Local Structure Plan and to remove the requirement of using native seed and top soil from the proposal site for revegetation. In addition, requirements for reporting have been updated. The conditions of approval must now be undertaken in accordance with the varied conditions and attachments specified in the variation notification, which has been attached for your information.

Officers of this Department have considered the plans and are satisfied *Eglington Estates Conservation Management Plan, 5 June 2019* meets the requirements of condition 10 and *Eglington Estates Clearing and Revegetation Management Plan, 5 June 2019* meets the requirements of condition 12 of the approval as varied. On this basis, and as a delegate of the Minister for the Environment, I have decided to approve the *Eglington Estates Conservation Management Plan, 5 June 2019* and *Eglington Estates Clearing and Revegetation Management Plan, 5 June 2019*. These plans must now be implemented.

As you are aware, the Department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval so that they can be made available to the Department on request.

Should you require any further information please contact Panna Patel, Post Approvals Section, on 02 6275 9299 or by email: post.approvals@environment.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'G. Manning', written over a horizontal line.

Greg Manning, Assistant Secretary
Assessments (WA, SA, NT) and Post Approvals Branch

17 June 2019

Note: Under s 491 of the *Environment Protection and Biodiversity Conservation Act 1999* it is an offence to knowingly provide false and/or misleading information to a departmental officer.

ATTACHMENT 8

**EGLINTON CONSERVATION POS
MONITORING REPORT – YEAR 2017**

EGLINTON ESTATES CONSERVATION PUBLIC OPEN SPACE

2019 MONITORING REPORT

Prepared for: Eglinton Estates

Report Date: 8 January 2020

Version: 1

Report No. 2019-486

The logo for pgv ENVIRONMENTAL is located at the bottom of the page. It features the letters 'pgv' in a large, bold, white sans-serif font. To the right of 'pgv', the word 'ENVIRONMENTAL' is written in a smaller, all-caps, white sans-serif font. The background of the bottom half of the page is a solid orange color with a subtle, wavy, textured pattern.

pgv
ENVIRONMENTAL

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- Table 3: Vegetation Types in POS AH
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- Table 5: Species Richness in Monitoring Quadrats

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- Figure 1: Site Location
- Figure 2: POS Boundaries

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- Appendix 1: Species List
- Appendix 2: Quadrat Data
- Appendix 3: Photo Monitoring Points
- Appendix 4: Section 143 Variation and Revised CMP Approval

1 INTRODUCTION

1.1 Background

The Eglinton Estates Pty Ltd (Eglinton) landholding is located 45km north west of the Perth Central Business District (Figure 1). The land is being developed in accordance with the Local Structure Plan (LSP) for residential and commercial purposes and includes Urban Development, the Eglinton District Centre, primary schools and playing fields, the Eglinton Marina and Coastal Village, Regional Open Space and Public Open Space.

Development of the eastern half of the LSP area was assessed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to the impact of clearing on Carnaby's Black Cockatoo (*Calyptrorhynchus latirostris*) foraging habitat. The proposed development was approved by the Commonwealth Environment Minister on 30 April 2013 and modified on 17 July 2013.

As a result of the assessment and approval under the EPBC Act, three areas that contained Carnaby's Black Cockatoo foraging habitat in very good condition were identified for retention within Conservation Public Open Space (POS). The locations of the POS areas are shown in Figure 2 and are:

- To the east of Marmion Avenue in the southern part of the site (POS Area AE);
- To the south of Pipidinny Road in the western part of the site (POS Area AH); and
- In the south eastern corner of the site adjacent to the future Mitchell Freeway extension (POS Area AG).

Eglinton sold a portion of their land in 2019 to Peet Property Ltd (Peet). Lot 5001 is located west of Marmion Ave and south of Pipidinny Road. POS Area AH is located on Lot 5001. Vegetation monitoring of POS Area AH was undertaken by Eglinton for Year 2019.

1.2 Conservation Management Plan

A Conservation Management Plan (CMP) was prepared for the three areas of conservation POS in accordance with Condition 10 (a) of the EPBC Act approval (PGV Environmental, 2014). The specific intent of the CMP was to protect, enhance and manage the Carnaby's Cockatoo habitat retained in the Conservation POS areas. The plan included:

- i. Measures to physically delineate (through fencing or other means) areas that will be retained;
- ii. Erosion and dust control measures during construction;
- iii. The management of weeds, phytophthora dieback, bushfire and feral animals;
- iv. Identification of any degraded habitat for listed threatened species and revegetation of those areas;
- v. A monitoring program for listed threatened species and their habitat;
- vi. Performance indicators and corrective actions;
- vii. Roles and responsibilities;
- viii. Time frames for the implementation of the above measures; and

- ix. Implementation of the CMP, including who has responsibilities for the long-term management.

The Conservation Management Plan (CMP) was approved on 23 July 2014 by the Minister for the Environment's Delegate.

Management Actions 6, 7 and 8 in the CMP are to:

- 6 Undertake a vegetation and flora survey in Spring 2014 in the POS conservation areas.
- 7 Undertake a baseline weed mapping survey in Carnaby's Black Cockatoo habitat in accordance with DPaW's Standard Operating Procedure No. 22.1.
- 8 Set up two permanent quadrats in each area of POS conservation areas for annual vegetation/weed monitoring.

Those management actions were undertaken in 2014 and were the subject of the Baseline Flora, Vegetation and Weed survey report (PGV Environmental, 2015).

1.2.1 Section 143 Variation POS Area AG

The original boundary of POS Area AG has been modified as it unintentionally extended into the Yanchep Rail Reserve and Mitchell Freeway extension. The detailed planning for the two transport corridors was not completed at the time of the original EPBC Approval 2010/5777 and approval of the CMP (23 July 2013).

A section 143 variation to the EPBC Approval was submitted to the Department of the Environment and Energy (DoEE) on 17 April 2019. The variation request included changing the boundary of POS Area AG which resulted in a net increase of 0.17ha of Black Cockatoo habitat being retained from 10.61ha to 10.78ha.

The DoEE approved the section 143 variation and revised CMP in June 2019 (Appendix 4).

The variation in the boundary of POS Area AG has not impacted on the permanent quadrats set up for annual vegetation monitoring.

1.3 Purpose

The CMP contains a monitoring program for the POS Conservation Areas. Among other things the monitoring programme requires the vegetation in the two 10m x 10m quadrats established in each of the three POS areas to be monitored annually in mid-spring until the areas are handed over to the City of Wanneroo.

This report includes the results of the 2019 vegetation quadrat monitoring and any additional species recorded in the three POS areas.

2 SITE DESCRIPTIONS

2.1 POS AE

POS AE is located to the south of the Eglinton Estates development, adjacent to Marmion Avenue (Figure 2). The vegetation types in POS AE are outlined in Table 1. Two land systems occur on the site, the Spearwood Dune soils in the southern two-thirds of the area and a portion of a Quindalup parabolic dune ridge in the northern part.

Table 1: Vegetation Types in POS AE

POS Area	Vegetation Type		Carnaby's Foraging Habitat (Y/N)
7.31ha	CqDs	<i>Calothamnus quadrifidus</i> , <i>Dryandra sessilis</i> (now <i>Banksia sessilis</i>) Open Heath to Closed Heath	Y
	MsLm	<i>Melaleuca systema</i> , <i>Lomandra maritima</i> Low Open Heath	N
	BaBm	<i>Banksia attenuata</i> , <i>Banksia menziesii</i> Low Woodland	Y
	AsJf	<i>Acacia saligna</i> and <i>Jacksonia furcellata</i> Open Scrub	N
	Ds	<i>Dryandra sessilis</i> (now <i>Banksia sessilis</i>) Open to Closed Heath	Y

Overall the Carnaby's Cockatoo foraging vegetation in the POS is in Very Good Condition with sections in Excellent condition while the Quindalup dune vegetation is mostly in Good Condition in the northern part. A strip running along the western boundary is cleared and has a sandy track running along the edge that is mapped as being Completely Degraded.

2.2 POS AG

POS AG is located in the eastern part of the Eglinton Estates development (Figure 2), adjacent to the future freeway reserve. The vegetation types in POS AG are described in Table 2. Two land systems occur on the site, the Spearwood Dune soils in the south-eastern part of the area and a narrow portion of a Quindalup parabolic dune ridge along the north-western boundary.

Table 2: Vegetation Types in POS AG

POS Area	Vegetation Type		Carnaby's Foraging Habitat(Y/N)
4.74ha	BaBmDs	<i>Banksia attenuata</i> , <i>Banksia menziesii</i> Low Woodland over <i>Dryandra sessilis</i> (now <i>Banksia sessilis</i>)	Y
	Ds	<i>Dryandra sessilis</i> (now <i>Banksia sessilis</i>) Open to Closed Heath	Y
	MsLm	<i>Melaleuca systema</i> , <i>Lomandra maritima</i> Low Open Heath	N
	BaBmJf	<i>Banksia attenuata</i> , <i>Banksia menziesii</i> Low Woodland over <i>Jacksonia furcellata</i>	Y
	AsSgOa	<i>Acacia saligna</i> , <i>Spyridium globulosum</i> , <i>Olearia axillaris</i> Heath	N

The Ds vegetation unit in the south-eastern corner of the site also contains a small stand of *Eucalyptus decipiens* trees. The vegetation Condition in this POS is mapped as Very Good over most of the POS

with an area along the western boundary mapped as Very Good to Good. Portions of the vegetation are in Excellent condition.

2.3 POS AH

POS AH is located in the northern part of the development to the west of Marmion Avenue and adjacent to the southern side of Pipidinn Road (Figure 2). The vegetation types are outlined in Table 3. Two land systems occur on the site, the Spearwood Dune soils the Quindalup Dune soils in a mixed configuration.

Table 3: Vegetation Types in POS AH

POS Area	Vegetation Type		Carnaby's Foraging Habitat (Y/N)
4.40ha	Ds	<i>Dryandra sessilis</i> (now <i>Banksia sessilis</i>) Open to Closed Heath	Y
	BaBm	<i>Banksia attenuata</i> , <i>Banksia menziesii</i> Low Woodland	Y
	MsLm	<i>Melaleuca systema</i> , <i>Lomandra maritima</i> Low Open	N
	Sa	<i>Santalum acuminatum</i> Heath	N

The vegetation condition in this POS is more variable than the other two POS areas with Very Good condition vegetation in the eastern and western parts of the POS and an area in the centre that is described as Good to Degraded. There is also a small area of Good to Degraded vegetation in the southern western part of the POS.

3 2018 MONITORING

3.1 Timing

The 2019 monitoring was undertaken by Dr Paul van der Moezel on 27 September 2019.

The 2019 winter and spring seasons had maximum temperatures slightly above average and minimum temperatures above average (Plate 1).

Rainfall was above average in April and June and below average for the remaining months) (Plate 2).

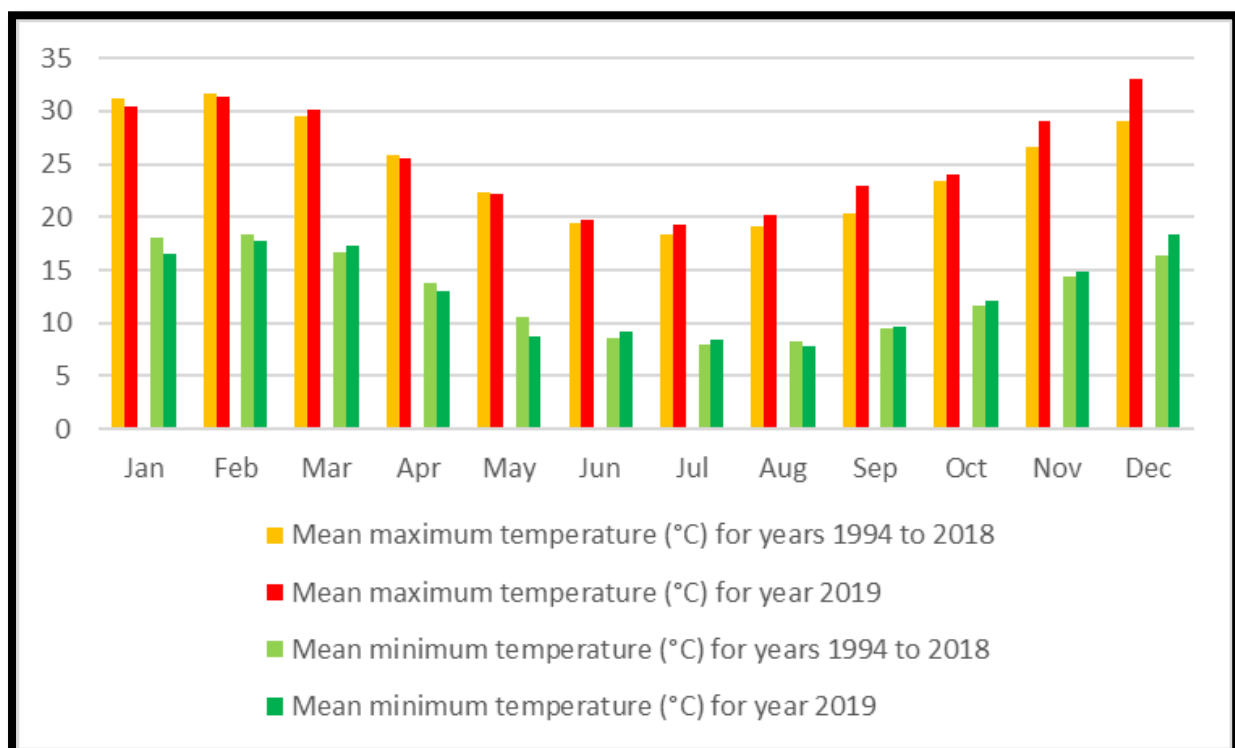


Plate 1: Perth Mean Maximum and Mean Minimum Temperatures (°C) 1994 to 2018 Compared to Year 2019 (Bom, 2019)

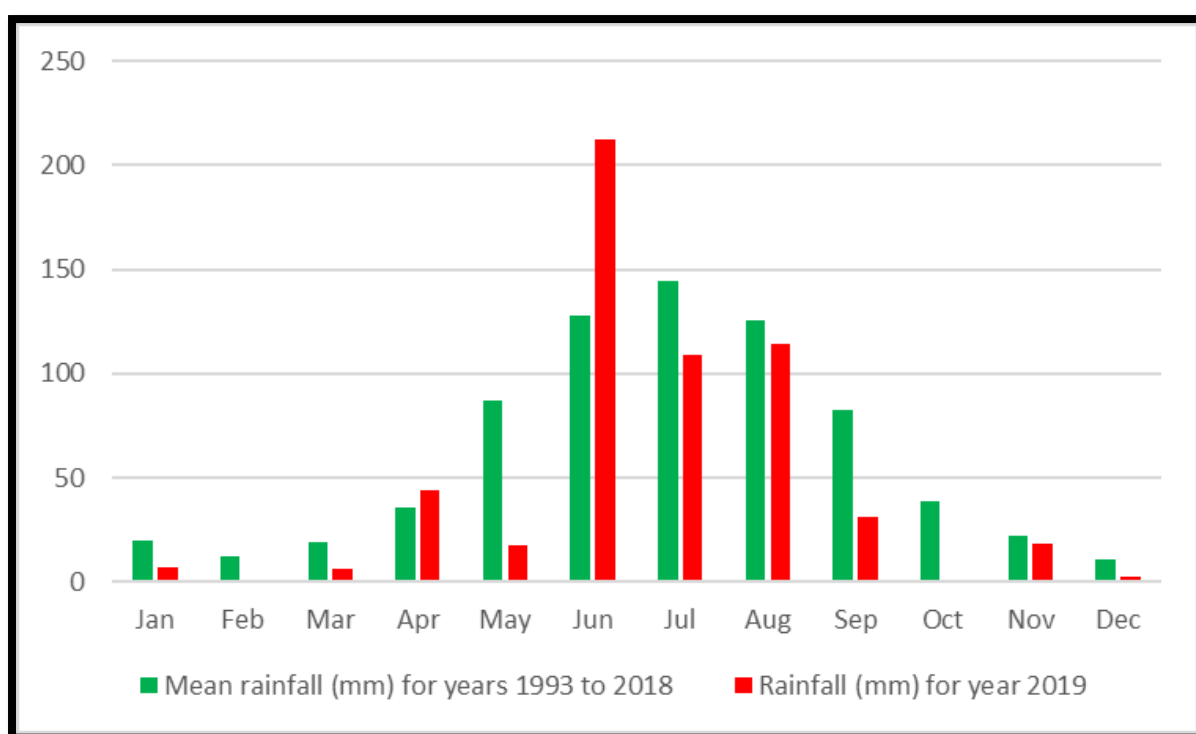


Plate 2: Mean Rainfall (mm) 1994 to 2018 Compared to Year 2019 (Bom, 2019)

3.2 POS Areas

3.2.1 Species List

The 2014-2018 monitoring surveys recorded a total of 172 species within the POS areas consisting of 138 native and 34 introduced species. One additional species, *Siloxerus humifusus*, was recorded during the 2019 survey, *Siloxerus humifusus* is a small annual native species that may not have been recorded in previous surveys due to its small size or absence due to climatic reasons. The combined total for all three areas is now 173 (Appendix 1). The total for each individual area of POS is shown in Table 4.

Table 4: Species Richness in POS Areas

POS Area	Area (ha)	Native Species	Introduced Species	Total Species
AE	7.31	94	16	110
AG	4.74	93	22	115
AH	4.40	75	27	102
Total	16.45	139	34	173

The most commonly represented plant Families are the Fabaceae (wattle and pea family – 18 species including 17 native and one introduced), Asteraceae (Daisy family – 15 species, 10 native and 5 introduced), Proteaceae (Banksia family – 13 species all native) and the Poaceae (Grass family – 11 species, 3 native and 8 introduced).

No Threatened (Declared Rare) or Priority flora species have been recorded in any of the POS areas.

3.3 Monitoring Quadrats

3.3.1 POS AE

The two vegetation monitoring quadrats are located in *Banksia attenuata*/*B. menziesii* woodland in Excellent condition.

The number of species decreased slightly in quadrats AE1 and AE2 in 2019 compared to 2018 but was similar to 2017 results (Appendix 2). The decrease may have been due to the drier conditions in 2019, however there was not an overall decrease in the other quadrats monitored in POS Areas AG and AH.

Scattered dead plants of several shrub species were observed in POS AE in 2016. No further deaths were observed in 2019.

3.3.2 POS AG

The two vegetation monitoring quadrats are located in different Carnaby's Cockatoo foraging habitat, one (AG2) in the *Banksia attenuata*/*B. menziesii* woodland vegetation that is most prevalent on the site, and the other (AG1) in the Parrot Bush (*Banksia sessilis*) dominated vegetation with some emergent *Eucalyptus decipiens* located at the southern end of the site.

The species richness and composition of native and introduced species in both quadrats was similar to the previous year.

3.3.3 POS AH

The two vegetation monitoring quadrats in POS AH are located in different types of Carnaby's Cockatoo foraging habitat, one (AH2) in a small stand of *Banksia attenuata*/*B. menziesii* woodland and the other (AH1) in a larger stand of dense Parrot Bush (*Banksia sessilis*) vegetation dominated vegetation.

Overall the condition of the vegetation in POS AH is slightly lower than in POS AE and AG and the condition in the quadrats was Very Good (AH1) and Good (AH2).

Species richness was slightly higher in both AH1 and AH2 in 2019. The higher species richness was due to a larger number of native species rather than weed species. Most of the native species, apart from *Daucus glochidiatus*, have been recorded previously in the quadrat. Four of the native species not recorded in 2018 are ephemeral and may have been present in 2019 as a result of seasonal conditions.

Table 5: Species Richness in Monitoring Quadrats (2014 to 2019)

Year	Species	Quadrat					
		AE1	AE2	AG1	AG2	AH1	AH2
2014	Native	30	29	29	31	23	20
	Introduced	8	5	5	7	7	11
	Total	38	34	34	38	30	31
2015	Native	33	25	30	30	20	22
	Introduced	5	2	5	7	1	9
	Total	38	27	35	37	21	31
2016	Native	37	34	30	36	20	23
	Introduced	10	5	7	8	13	12
	Total	47	39	37	44	33	35
2017	Native	36	37	36	35	28	27
	Introduced	8	6	7	10	14	19
	Total	44	43	43	45	42	46
2018	Native	42	41	33	42	24	27
	Introduced	8	6	8	8	11	21
	Total	50	47	41	50	35	48
2019	Native	35	36	32	40	26	32
	Introduced	9	5	7	9	11	20
	Total	44	41	39	49	37	52

3.3.4 Photo Monitoring

Appendix 3 provides the photo monitoring point comparisons from 2014 to 2019. Overall there were no major differences in the condition of the vegetation in the POS areas recorded in 2019.

3.4 Weed Monitoring

The 2014 weed monitoring required the mapping of weeds over the entire POS areas to assist in developing a weed control programme.

The follow-up annual weed monitoring was intended to only occur in the two permanent vegetation monitoring plots established in each POS area so that any new infestations of significant weeds could be recorded.

The quadrat monitoring data provided in Appendix 2 and summarised in Table 5 shows there were no new occurrences of weed species in any of the monitoring quadrats. The presence of Rose Pelargonium in AE2, and, Coastal Pigface and Cape Tulip in AH2 that was first measured in 2017 has persisted in 2018 and will require continued monitoring to determine if it is spreading throughout the POS areas. Geraldton Carnation Weed seedlings recorded in AH2 in 2017 and 2018 were not recorded in 2019.

Overall the quality of the vegetation in all monitoring plots has not changed over the six monitoring events.

4 CONCLUSION

4.1 Vegetation Monitoring

Monitoring of the six quadrats established in the three Conservation POS areas in 2014 showed that the condition of the vegetation had not changed in 2019. Most monitoring plots recorded a similar number of species, both native and introduced, compared to recent years, subject to seasonal weather conditions.

4.2 Weed Monitoring

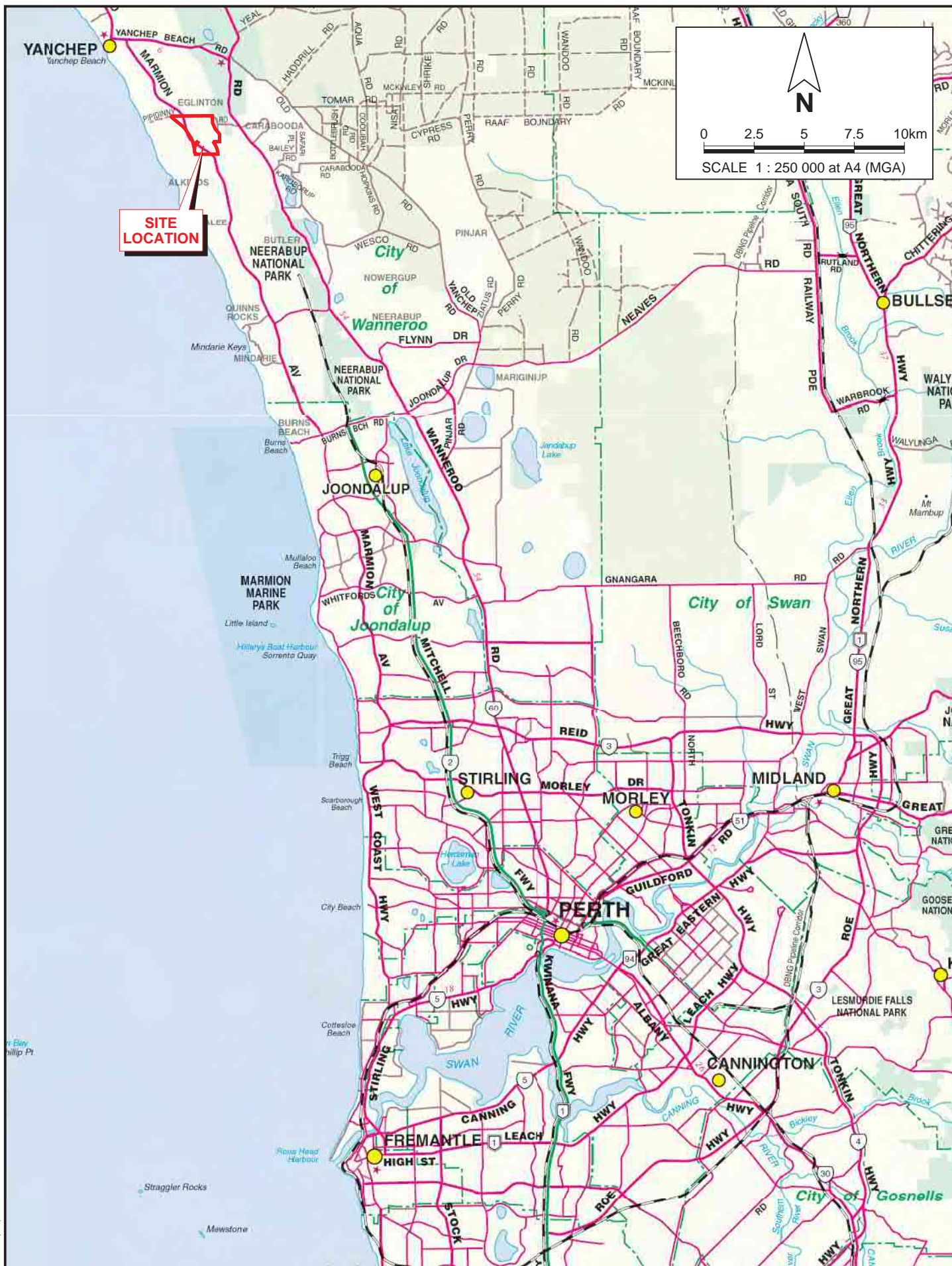
Monitoring of weeds in the quadrats showed no new occurrences of weed species and no observable spread of weeds in the quadrats. This was consistent with the quality of the vegetation in the overall POS areas not having changed since baseline monitoring.

5 REFERENCES

PGV Environmental (2014) *Eglinton Estates Conservation Management Plan*. Prepared for Eglinton Estates Pty Ltd 29 April 2014. Report 2014-142.

PGV Environmental (2015) *Eglinton Estates Conservation Public Open Space Baseline Flora, Vegetation and Weed Survey*. Prepared for Eglinton Estates 4 March 2015. Report 2015-198.

FIGURES



PINPOINT CARTOGRAPHICS (08) 9562 7136 2015-246-101.dgn

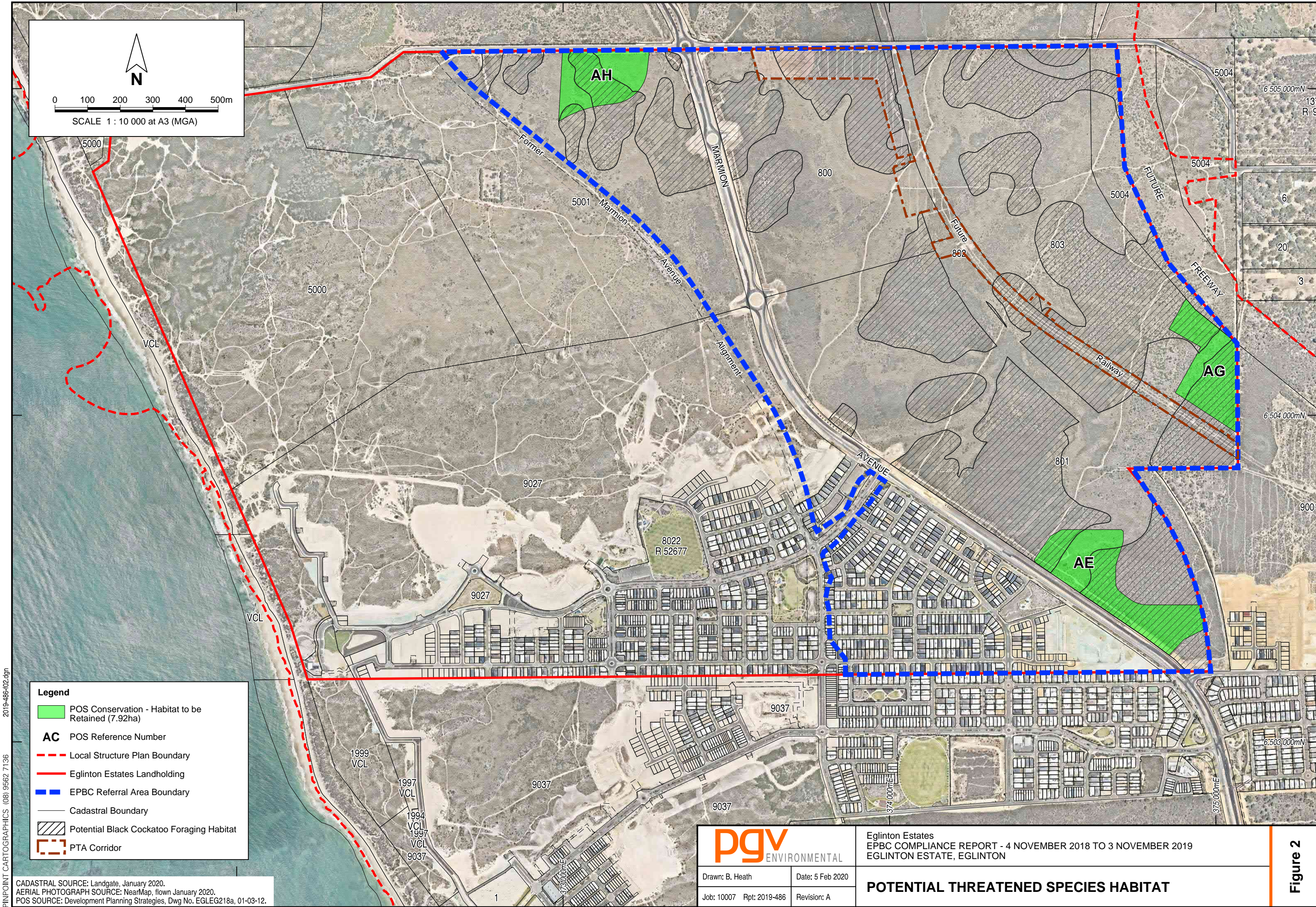


Eglinton Estates Pty Ltd
EGLINTON ESTATES CONSERVATION PUBLIC OPEN SPACE 2015 MONITORING
REPORT

Drawn: B. Heath	Date: 18 Dec 2015
Job: 10007 Rpt: 2015-246	Revision: A

SITE LOCATION

Figure 1



2019-486-02.dgn
PINPOINT CARTOGRAPHICS (08) 9562 7136

CADASTRAL SOURCE: Landgate, January 2020.
AERIAL PHOTOGRAPH SOURCE: NearMap, flown January 2020.
POS SOURCE: Development Planning Strategies, Dwg No. EGLEG218a, 01-03-12.

pgv ENVIRONMENTAL

Drawn: B. Heath	Date: 5 Feb 2020
Job: 10007 Rpt: 2019-486	Revision: A

Eglington Estates EPBC COMPLIANCE REPORT - 4 NOVEMBER 2018 TO 3 NOVEMBER 2019 EGLINTON ESTATE, EGLINTON
POTENTIAL THREATENED SPECIES HABITAT

APPENDIX 1

Species List

Eglinton POS Sites - September 2019 (includes 2014, 2015, 2016, 2017 and 2018 list plus additional species recorded in 2019 for whole site not just quadrats)			
* = Introduced Species			
	Site AE	Site AG	Site AH
GYMNOSPERMS			
ZAMIACEAE			
<i>Macrozamia fraseri</i>	✓		✓
MONOCOTYLEDONS			
ANARTHRIACEAE			
<i>Lyginia barbata</i>	✓		
ASPHODELACEAE			
* <i>Trachyandra divaricata</i>			✓
ASPARAGACEAE			
<i>Acanthocarpus preissii</i>		✓	✓
<i>Lomandra hermaphrodita</i>	✓	✓	
<i>Lomandra maritima</i>	✓	✓	✓
<i>Lomandra preissii</i>		✓	
<i>Lomandra purpurea</i>		✓	
<i>Sowerbaea laxiflora</i>	✓	✓	✓
<i>Thysanotus multiflorus</i>			✓
<i>Thysanotus patersonii</i>	✓	✓	✓
<i>Thysanotus thyrsoides</i>			✓
CENTROLEPIDACEAE			
<i>Centrolepis sp</i>	✓		
COLCHICACEAE			
<i>Burchardia congesta</i>	✓	✓	
CYPERACEAE			
* <i>Isolepis marginata</i>	✓		
<i>Lepidosperma angustatum</i>		✓	✓
<i>Lepidosperma pubisquameum</i>		✓	
<i>Lepidosperma squamatum</i>	✓		
<i>Mesomelaena pseudostygia</i>	✓	✓	✓
<i>Schoenus grandiflorus</i>	✓	✓	✓
<i>Schoenus latitans</i>		✓	
DASYPOGONACEAE			
<i>Calectasia narragara</i>	✓		
HAEMODORACEAE			
<i>Anigozanthos humilis</i>	✓	✓	
<i>Conostylis aculeata</i>	✓	✓	
<i>Conostylis candicans</i>	✓	✓	✓
<i>Conostylis candicans</i> subsp. <i>calcicola</i>			✓
<i>Conostylis setigera</i>	✓	✓	
HEMEROCALLIDACEAE			
<i>Corynotheca micrantha</i>		✓	✓
<i>Dianella revoluta</i> var. <i>divaricata</i>	✓	✓	✓
<i>Tricoryne elatior</i>	✓	✓	✓
IRIDACEAE			
* <i>Gladiolus caryophyllaceus</i>	✓	✓	✓
* <i>Moraea flaccida</i>			✓
<i>Orthrosanthus laxus</i>	✓		
* <i>Romulea rosea</i>		✓	✓
ORCHIDACEAE			
<i>Caladenia arenicola</i>	✓		
<i>Caladenia longicauda</i> subsp. <i>calcigena</i>			✓
<i>Caladenia flava</i>	✓	✓	✓
<i>Caladenia latifolia</i>			✓
<i>Diuris corymbosa</i>	✓	✓	

	Site AE	Site AG	Site AH
<i>Microtis</i> sp.	✓		
<i>Pterostylis vittata</i>	✓		
<i>Pyrorchis nigricans</i>	✓	✓	
<i>Thelymitra campanulata</i>	✓		
POACEAE			
* <i>Aira cupaniana</i>	✓	✓	
<i>Austrostipa flavescens</i>	✓	✓	✓
* <i>Avena fatua</i>	✓	✓	✓
* <i>Briza maxima</i>	✓	✓	✓
* <i>Bromus diandrus</i>	✓	✓	✓
* <i>Ehrharta calycina</i>			✓
* <i>Ehrharta longiflora</i>		✓	
* <i>Lolium perenne</i>	✓	✓	✓
<i>Neurachne alopecuroidea</i>		✓	
<i>Poa poiformis</i>		✓	✓
* <i>Vulpia myuros</i>			✓
RESTIONACEAE			
<i>Alexgeorgea nitens</i>	✓	✓	
<i>Desmocladus flexuosus</i>	✓	✓	✓
XANTHORRHOEACEAE			
<i>Xanthorrhoea brunonis</i>	✓	✓	
<i>Xanthorrhoea preissii</i>	✓	✓	
DICOTYLEDONS			
AIZOACEAE			
* <i>Carpobrotus edulis</i>		✓	✓
APIACEAE			
<i>Daucus glochidiatus</i>			✓
<i>Homalosciadium homalocarpum</i>	✓	✓	✓
<i>Xanthosia huegelii</i>	✓	✓	
ARALIACEAE			
<i>Trachymene pilosa</i>	✓	✓	✓
ASTERACEAE			
* <i>Cirsium vulgare</i>			✓
* <i>Hypochaeris glabra</i>	✓	✓	✓
* <i>Lactuca serriola</i>			✓
<i>Lagenophora huegelii</i>	✓	✓	
<i>Millotia myosotidifolia</i>			✓
<i>Olearia axillaris</i>	✓	✓	✓
<i>Olearia rudis</i>		✓	✓
<i>Podotheca angustifolia</i>	✓	✓	✓
<i>Podotheca chrysantha</i>	✓	✓	
<i>Quinettia urvillei</i>		✓	
<i>Senecio pinnatifolius</i> var. <i>maritimus</i>	✓	✓	✓
<i>Siloxerus humifusus</i>		✓	
* <i>Sonchus oleraceus</i>	✓	✓	✓
* <i>Ursinia anthemoides</i>	✓	✓	✓
<i>Waitzia suaveolens</i>		✓	✓
BRASSICACEAE			
* <i>Brasica tournefortii</i>	✓	✓	✓
* <i>Heliophila pusilla</i>	✓	✓	✓
<i>Stenopetalum gracile</i>	✓		
CAMPANULACEAE			
<i>Lobelia gibbosa</i>			✓
* <i>Wahlenbergia capensis</i>		✓	
<i>Wahlenbergia gracilentia</i>	✓	✓	
CARYOPHYLLACEAE			
* <i>Cerastium glomeratum</i>			✓
* <i>Petrorhagia dubia</i>		✓	✓
* <i>Silene gallica</i>		✓	✓

	Site AE	Site AG	Site AH
CASUARINACEAE			
<i>Allocasuarina humilis</i>	✓	✓	✓
CELASTRACEAE			
<i>Stackhousia monogyna</i>			✓
CHENOPODIACEAE			
<i>Rhagodia baccata</i> subsp. <i>baccata</i>	✓	✓	✓
CRASSULACEAE			
<i>Crassula colorata</i>	✓	✓	✓
<i>*Crassula glomerata</i>			✓
DILLENIACEAE			
<i>Hibbertia hypericoides</i>	✓	✓	✓
<i>Hibbertia racemosa</i>	✓	✓	✓
DROSERACEAE			
<i>Drosera erythrorhiza</i>	✓	✓	✓
<i>Drosera menziesii</i>	✓	✓	✓
ERICACEAE			
<i>Astroloma pallidum</i>	✓		
<i>Conostephium pendulum</i>	✓	✓	
<i>Leucopogon insularis</i>			✓
<i>Leucopogon polymorphus</i>	✓		
<i>Leucopogon parviflorus</i>			✓
<i>Leucopogon propinquus</i>		✓	
<i>Lysinema ciliatum</i>	✓		
EUPHORBIACEAE			
<i>*Euphorbia terracina</i>		✓	✓
FABACEAE			
<i>Acacia cochlearis</i>	✓		✓
<i>Acacia lasiocarpa</i>	✓	✓	✓
<i>Acacia pulchella</i>	✓	✓	
<i>Acacia saligna</i>	✓	✓	✓
<i>Bossiaea eriocarpa</i>		✓	
<i>Bossiaea ornata</i>		✓	
<i>Daviesia divaricata</i>		✓	✓
<i>Gastrolobium capitatum</i>	✓	✓	✓
<i>Gompholobium tomentosum</i>	✓	✓	✓
<i>Hardenbergia comptoniana</i>	✓		✓
<i>Hovea trisperma</i>	✓	✓	
<i>Isotropis cuneifolia</i>		✓	
<i>Jacksonia calcicola</i>	✓	✓	
<i>Jacksonia furcellata</i>			✓
<i>Kennedia prostrata</i>	✓		✓
<i>Sphaerolobium medium</i>		✓	
<i>Templetonia retusa</i>			✓
<i>*Trifolium campestre</i>			✓
GERANIACEAE			
<i>*Erodium botrys</i>	✓		
<i>*Erodium moschatum</i>		✓	✓
<i>Geranium solanderi</i>	✓		
<i>*Pelargonium capitatum</i>	✓	✓	✓
GOODENIACEAE			
<i>Lechenaultia linarioides</i>	✓	✓	✓
<i>Scaevola canescens</i>	✓	✓	✓
<i>Scaevola thesioides</i>		✓	✓
GYROSTEMONACEAE			
<i>Tersonia cyathiflora</i>	✓	✓	
LAURACEAE			
<i>Cassytha racemosa</i>	✓	✓	
LOGANIACEAE			

	Site AE	Site AG	Site AH
<i>Phyllangium paradoxum</i>	✓	✓	
MYRTACEAE			
<i>Calothamnus hirsutus</i>	✓		
<i>Calothamnus quadrifidus</i>	✓	✓	✓
<i>Calytrix flavescens</i>	✓		
<i>Eremaea asterocarpa</i> subsp. <i>asterocarpa</i>	✓	✓	
<i>Eremaea pauciflora</i>	✓		
<i>Eucalyptus decipiens</i>		✓	
<i>Melaleuca systema</i>	✓	✓	✓
OXALIDACEAE			
* <i>Oxalis corniculata</i>		✓	
PHYLLANTHACEAE			
<i>Phyllanthus calycinus</i>	✓	✓	✓
<i>Poranthera microphylla</i>	✓	✓	
PORTULACACEAE			
<i>Calandrinia liniflora</i>			✓
PRIMULACEAE			
* <i>Lysimachia arvensis</i>	✓	✓	✓
<i>Samolus repens</i>	✓		
PROTEACEAE			
<i>Banksia attenuata</i>	✓	✓	✓
<i>Banksia dallanneyi</i>	✓	✓	✓
<i>Banksia menziesii</i>	✓	✓	
<i>Banksia sessilis</i>	✓	✓	✓
<i>Conospermum stoechadis</i>		✓	✓
<i>Hakea lissocarpha</i>			✓
<i>Hakea prostrata</i>		✓	✓
<i>Hakea ruscifolia</i>	✓	✓	
<i>Hakea trifurcata</i>	✓	✓	
<i>Petrophile brevifolia</i>		✓	
<i>Petrophile linearis</i>	✓		
<i>Petrophile macrostachya</i>	✓	✓	✓
<i>Stirlingia latifolia</i>	✓		
RHAMNACEAE			
<i>Cryptandra mutila</i>	✓	✓	✓
<i>Spyridium globulosum</i>	✓	✓	✓
RUBIACEAE			
* <i>Galium murale</i>			✓
<i>Opercularia vaginata</i>	✓	✓	✓
SANTALACEAE			
<i>Santalum acuminatum</i>			✓
SCROPHULARIACEAE			
<i>Dischisma arenarium</i>		✓	✓
<i>Eremophila glabra</i>	✓		
SOLANACEAE			
<i>Solanum nigrum</i>			✓
STYLIDIACEAE			
<i>Stylidium brunonianum</i>	✓	✓	
<i>Stylidium calcaratum</i>	✓	✓	
<i>Stylidium piliferum</i>	✓		
<i>Stylidium repens</i>		✓	
THYMELAEACEAE			
<i>Pimelea sulphurea</i>	✓		
URTICACEAE			
<i>Parietaria debilis</i>			✓
VIOLACEAE			

	Site AE	Site AG	Site AH
<i>Hybanthus calycinus</i>	✓	✓	✓
TOTAL SPECIES	110	115	101

APPENDIX 2

Quadrat Data

QUADRAT AH1	2014	2015	2016	2017	2018	2019
* <i>Avena fatua</i>				+		+
* <i>Bromus diandrus</i>				+		+
* <i>Cerastium glomeratum</i>			+	+	+	+
* <i>Cirsium vulgare</i>			+	+		
* <i>Crassula glomerata</i>	+		+	+	+	+
* <i>Dischisma arenarium</i>			+	+	+	+
* <i>Ehrharta calycina</i>			+	+	+	+

<i>*Euphorbia terracina</i>	+					
<i>*Galium murale</i>			+		+	
<i>*Gladiolus caryophyllaceus</i>			+	+	+	
<i>*Heliophila pusilla</i>			+		+	+
<i>*Hypochaeris glabra</i>	+		+	+	+	+
<i>*Lolium perenne</i>				+		
<i>*Lysimachia arvensis</i>	+	+	+	+	+	+
<i>*Pelargonium capitatum</i>				+	+	+
<i>*Romulea rosea</i>	+		+			
<i>*Solanum nigrum</i>	+					
<i>*Sonchus oleraceus</i>			+	+	+	+
<i>*Vulpia myuros</i>	+		+	+		
<i>Austrostipa flavescens</i>	+		+	+	+	+
<i>Banksia sessilis</i>	+	+	+	+	+	+
<i>Caladenia flava</i>				+		
<i>Caladenia latifolia</i>	+	+	+	+	+	+
<i>Calandrinia liniflora</i>			+	+	+	+
<i>Calothamnus quadrifidus</i>	+	+	+	+	+	+
<i>Conostylis candicans subsp. calcicola</i>	+	+	+	+	+	+
<i>Crassula colorata</i>	+	+	+	+	+	+
<i>Daucus glochidiatus</i>	+	+	+	+	+	+
<i>Desmocladus flexuosus</i>	+	+	+	+	+	+
<i>Dianella revoluta var divaricata</i>	+	+	+	+	+	+
<i>Drosera menziesii</i>	+					
<i>Gastrolobium capitatum</i>	+	+				
<i>Hakea lissocarpa</i>					+	+
<i>Hakea prostrata</i>	+	+	+	+	+	+
<i>Hardenbergia comptoniana</i>	+	+	+	+	+	+
<i>Hibbertia racemosa</i>	+	+	+	+	+	+
<i>Homalosciadium homalocarpum</i>				+	+	
<i>Isolepis marginata</i>				+	+	+
<i>Kennedia prostrata</i>	+	+	+	+	+	+
<i>Lomandra maritima</i>	+	+	+	+	+	+
<i>Melaleuca systema</i>	+	+	+	+	+	+
<i>Millotia myosotidifolia</i>				+		
<i>Opercularia vaginata</i>				+	+	+
<i>Parietaria debilis</i>	+	+	+	+	+	+
<i>Phyllanthus calycinus</i>	+	+				+
<i>Poa poiformis</i>				+		+
<i>Rhagodia baccata subsp. baccata</i>	+	+	+	+	+	+
<i>Senecio pinnatifolius var. maritimus</i>				+		
<i>Spyridium globulosum</i>	+	+	+	+	+	+
<i>Thysanotus multiflorus</i>	+					
<i>Thysanotus patersonii</i>						+
<i>Trachymene pilosa</i>	+	+	+	+	+	+
TOTAL SPECIES	30	21	33	42	35	37

APPENDIX 3

Photo Monitoring Points

AE1

2014



2015



2016



2017



2018



2019



AE2

2014



2015



2016



2017



2018



2019



AG1

2014



2015



2016



2017



2018



AG2

2014



2015



2016



2017



2018



2019



AH1

2014



2015



2016



2017



2018



2019



AH2

2014



2015



2016



2017



2018



2019



APPENDIX 4

Section 143 Variation and Revised CMP Approval



Belinda Heath
Senior Environmental Consultant
PGV Environmental
Unit 1, 61 Guthrie Street
OSBORNE PARK WA 6017

**Eglinton Estates Residential Development, Eglinton, WA (EPBC 2010/5777)
Variation of conditions 3, 9, 11, 12 and 14 and approval of revised Conservation
Management Plan and Clearing and Revegetation Management Plan**

Dear Ms Heath

Thank you for your letter dated 17 April 2019 to the Department, for and on behalf of Eglinton Estates Pty Ltd, requesting:

- variation of conditions 9, 11, 12 and 14 and Attachment A, Attachment B and Attachment D of the approval dated 30 April 2013;
- approval of *Eglinton Estates Conservation Management Plan, 5 June 2019* in accordance with condition 10 and approval of *Eglinton Estates Clearing and Revegetation Management Plan, 5 June 2019* in accordance with condition 12 (the plans).

Officers of this Department have reviewed the variation request. As delegate of the Minister for the Environment, I have varied conditions of EPBC Approval 2010/5777 under section 143(1)(c) of the *Environment Protection and Biodiversity Conservation Act 1999*. The variation is to align the retained conservation area AG with the Local Structure Plan and to remove the requirement of using native seed and top soil from the proposal site for revegetation. In addition, requirements for reporting have been updated. The conditions of approval must now be undertaken in accordance with the varied conditions and attachments specified in the variation notification, which has been attached for your information.

Officers of this Department have considered the plans and are satisfied *Eglinton Estates Conservation Management Plan, 5 June 2019* meets the requirements of condition 10 and *Eglinton Estates Clearing and Revegetation Management Plan, 5 June 2019* meets the requirements of condition 12 of the approval as varied. On this basis, and as a delegate of the Minister for the Environment, I have decided to approve the *Eglinton Estates Conservation Management Plan, 5 June 2019* and *Eglinton Estates Clearing and Revegetation Management Plan, 5 June 2019*. These plans must now be implemented.

As you are aware, the Department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits. Please ensure that you maintain accurate records of all activities associated with, or relevant to, the conditions of approval so that they can be made available to the Department on request.

Should you require any further information please contact Panna Patel, Post Approvals Section, on 02 6275 9299 or by email: post.approvals@environment.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'G. Manning', written over a horizontal line.

Greg Manning, Assistant Secretary
Assessments (WA, SA, NT) and Post Approvals Branch

17 June 2019

Note: Under s 491 of the *Environment Protection and Biodiversity Conservation Act 1999* it is an offence to knowingly provide false and/or misleading information to a departmental officer.

ATTACHMENT 9
YELLAGONGA REGIONAL PARK
SITES 1A AND 1B MONITORING
REPORT – YEAR 2017

EGLINTON ESTATES

YELLAGONGA REGIONAL PARK REVEGETATION MONITORING ANNUAL REPORT 2019

Prepared for: Eglinton Estates

Report Date: 10 January 2020

Version: 1

Report No. 2019-487

The logo for pgv ENVIRONMENTAL is located at the bottom of the page. It features the letters 'pgv' in a large, bold, white sans-serif font. To the right of 'pgv', the word 'ENVIRONMENTAL' is written in a smaller, all-caps, white sans-serif font. The background of the bottom half of the page is a solid orange color with a subtle, wavy, textured pattern.

pgv
ENVIRONMENTAL

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Table 2:	Number of Native Species within Monitoring Plots (perennial only)
Table 3:	Life Form of Native species in Sites 1a and 1b (perennial only)
Table 4:	Key Carnaby's Black Cockatoo Foraging Species
Table 5:	Yellagonga Regional Park Revegetation Sites Completion Criteria
Table 6:	Comparison of 2019 results with completion criteria
Table 7:	Weed Species within Monitoring Plots

Plates

Plate 1:	Site 1a Plot 1 – October 2015 (left), November 2019 (right)
Plate 2:	<i>Acacia cyclops</i> seed on plants
Plate 3:	<i>Acacia cyclops</i> seed on the ground
Plate 4:	<i>Acacia pulchella</i> seedling
Plate 5:	Wild Oats in Site 1b
Plate 6:	<i>Banksia prionotes</i> Site 1b March 2019
Plate 7:	Marri nuts Site 1b March 2019

Figures

Figure 1:	Site Location
Figure 2:	Yellagonga Regional Park Revegetation Sites and Monitoring Plot Locations

Appendices

Appendix 1:	Tranen - PAR Yellagonga Offset 190401 Weed Control
Appendix 2:	Photos of Monitoring Plots October 2015 - October 2019
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Appendix 7: Monitoring Plot Data March 2019 – Carnaby’s Black Cockatoo Habitat Species

Appendix 8: Monitoring Plot Data November 2019 – Carnaby’s Black Cockatoo Habitat Species

Appendix 9: Monitoring Plot Data March 2019 – Weed Species

Appendix 10: Monitoring Plot Data November 2019 – Weed Species

Appendix 11: Completion Criteria Memo

1 INTRODUCTION

1.1 Background

The Eglinton Estates Pty Ltd (Eglinton Estates) landholding is located 45km north-west of the Perth Central Business District. The land is being developed in accordance with the approved Local Structure Plan (LSP) for residential and commercial purposes and includes urban development, the Eglinton District Centre, primary schools and playing fields, a marina and coastal village, Regional Open Space and Public Open Space.

Development of the site will result in the clearing of Carnaby's Black Cockatoo (CBC) habitat which is listed as an Endangered species under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The development was assessed under the EPBC Act and approved by the Commonwealth Minister for the Environment in 2013.

As a condition of the EPBC Act approval, Eglinton Estates is undertaking an extensive mitigation and offset package which includes the revegetation of 12.7ha of cleared land in Yellagonga Regional Park primarily with plant species used by Carnaby's Black Cockatoos for foraging. The method of revegetation is outlined in the Clearing and Revegetation Management Plan (CRMP) prepared in collaboration with the Department of Parks and Wildlife (now known as Department of Biodiversity, Conservation and Attractions (DBCA)) and approved by the Minister for the Environment on 8 November 2013 (PGV Environmental, 2013).

Four separate sites in Yellagonga Regional Park were selected by DBCA for revegetation. All four sites had previously been cleared for agricultural use. Revegetation of sites 1a and 1b commenced in 2014 with the spreading of topsoil transported from the development area and seeding of the sites. Further revegetation works including seeding (1b) and planting of tubestock (1a) were carried out in 2015. Additional planting of tubestock in 1b was carried out in 2016. Weed control has been ongoing.

1.2 Site Location and Description

Yellagonga Regional Park (YRP) is located approximately 20km north of the Perth CBD and 20km to the south of the Eglinton development area (Figure 1). The four sites identified by DBCA Regional Parks Unit for revegetation (Sites 1a, 1b, 2 and 3) are located close to each other to the north and south of Whitfords Avenue, on the western side of the Park (Figure 2).

1.3 Scope of Works

The CRMP requires annual monitoring of the Yellagonga revegetation sites in autumn and spring for a minimum of 5 years after planting and is to include:

- Establishment of three photo monitoring points to enable comparison of the area over time;
- Establishment of three monitoring plots in each of the four sites;
- An assessment of weeds present;
- Signs of pest animal species such as rabbits and kangaroos; and
- Recommendations on the need for infill planting, weed and pest control.

This monitoring report is the fifth annual monitoring report and outlines the progress of all works undertaken on Sites 1a and 1b. The revegetation sites were monitored twice, in autumn on 13 March 2019 and in spring on 6 November 2019. The monitoring was conducted by Dr Paul van der Moezel from PGV Environmental.

1.4 2018 Monitoring Report Recommendations and Actions

The 2018 monitoring report contained the following recommendations:

- All completion criteria for species richness, plant density and Carnaby's Black Cockatoo habitat species are currently being met. Therefore, while there was a continued reduction in plant density in both sites, no infill planting is required in 2019; and
- Weed control for Fleabane in the rows and on the berms will need to be continued in 2019 to keep these species at low densities. Complete eradication is probably unlikely given the presence of weeds in surrounding paddocks.

As a result of the 2018 recommendations no infill planting was undertaken in 2019. Weed control for Fleabane was undertaken in January 2019.

1.5 Completion Criteria

The CRMP proposed completion criteria for species richness, density of plants and density of Carnaby's Black Cockatoo species (Table 11 of the CRMP).

The percentage targets for species richness ranged from 100% for trees, 80% for large shrubs and 60% for other (small shrubs, herbs, sedges etc). The actual number of species for each life form was not determined in the CRMP but was to be calculated based on field studies in nearby woodland habitat.

The number of stems per hectare for each life form was also to be calculated through the additional field studies. The completion criteria for tree stem density was to be equal to or greater than nearby remnant bushland reference sites. The completion criteria for the density of Carnaby's Black Cockatoo foraging and habitat species was to be no less than the density on the Eglinton site that was to be cleared.

The additional field work to calculate the completion criteria was conducted in 2017 and is provided in Appendix 9.

2 REVEGETATION ACTIONS 2019

2.1 Infill Planting

No infill planting was undertaken in sites 1a or 1b in 2019.

2.2 Weed Control

Weed control was undertaken in January 2019 (Appendix 1).

Weed control included spot-spraying for Fleabane (*Conyza bonariensis*) which was the only weed species present with living plants in January.

2.3 Fauna Control

Fencing was constructed around Sites 1a and 1b between February and May 2014 to protect the sites from kangaroos and rabbits. The fence consists of 1.8m tall mesh with a rabbit-proof skirt buried 300mm deep. Additional skirts were attached to the gates in March 2015.

There have been no observed breaches of the fence since it was installed.

As there has been no evidence of rabbit or kangaroo grazing on the sites, no additional fauna control actions were undertaken in 2018.

2.4 Dieback

There is no evidence of Dieback (*Phytophthora cinnamomi* or any other species) on the sites.

3 MONITORING RESULTS

3.1 Fauna Control

No evidence of rabbits or kangaroos was observed on the sites during the 2019 monitoring.

3.2 Photo Monitoring Points

Photographs were taken at each of the photo monitoring points located at the end of each monitoring plot (Figure 2). Appendix 2 shows the photos from October 2015, March 2016, October 2016, March 2017, October 2017, March 2018, October 2018, March 2019 and November 2019.

The photos show considerable growth has occurred in the monitoring plots from 2017 to 2019, particularly in Eucalypt species. Some Tuart trees are up to 5m high in November 2019.

Growth in Site 1a has been vigorous since planting of seedlings in 2015 as demonstrated in Plate 1 for Plot 1 in Site 1a, just over four years after planting of seedlings.

Plate 1. Site 1a Plot 1 – October 2015 (left), November 2019 (right)



3.3 2019 Results

3.3.1 Plants

Table 1 shows the total number of native plants (perennial only) in the monitoring plots for Sites 1a and 1b in all monitoring events since 2015.

Overall, there was a reduction in plant numbers in the monitoring plots for both Sites 1a and 1b in March 2019 and further reduction in November 2019. The reduction from October 2018 to November 2019 was 22% in both sites. A high proportion (33%) of the total reduction in plant numbers was from one species, *Conostylis aculeata* with a loss of 24 plants over that period.

The number of plants in the three 20m x 5m monitoring plots in November 2019 in Site 1a ranged from 38 - 58 plants giving a density of 0.38 – 0.58 plants/m².

The number of plants in Site 1a has shown a gradual decline since the first summer of 2015/16, however the slightly decreasing survival rate is greatly outweighed by the growth rate of surviving

individuals as evidenced by the photographs of the monitoring plots (Appendix 2). Tuart saplings are up to 5m high in many areas. Percentage cover, although not recorded, is high in most areas of Site 1a. The reduction in plant numbers is due mostly to smaller shrub species dying off over time, particularly *Conostylis aculeata*, which is likely to be due to the increased cover and shading by the dense tree and tall shrub species.

Plant density in the three 20m x 5m monitoring plots in Site 1b that were planted in 2016 ranged from 23 - 64 plants giving a density of 0.23 – 0.64 plants/m².

The species that had the lowest survival rate from 2018 to 2019 in Site 1a were *Conostylis aculeata* (24 less plants), *Calothamnus sanguineus* (10) and *Jacksonia furcellata* (5). The same three species did not survive well over the preceding year from 2017 to 2018.

Table 1: Number of Native Plants within Monitoring Plots (perennial only)

Location	Plots	Treatment	Number of Native Plants								
			Oct 2015	Mar 2016	Oct 2016	Mar 2017	Oct 2017	Mar 2018	Oct 2018	Mar 2019	Nov 2019
Site 1a	Plot 1	Topsoil + Seed (+seedlings)	135	105	99	90	87	78	75	69	58
	Plot 2	Topsoil + Seed (+seedlings)	161	115	106	99	85	74	60	44	38
	Plot 3	Seed + Seedlings	89	71	53	50	47	43	45	44	45
	Plot 4	Topsoil only	2	1	1	1	1	0	0	0	0
	TOTAL		387	293	259	240	220	195	180	157	141
Site 1b	Plot 1	Topsoil + Seed (+seedlings)	0	2	144	61	56	51	45	40	33
	Plot 2	Topsoil + Seed (+seedlings)	6	4	131	42	32	32	31	29	23
	Plot 3	Topsoil + Seed (+seedlings)	10	9	139	79	77	75	77	70	64
	Plot 4	Topsoil only	0	0	0	0	0	0	0	0	0
	TOTAL		16	15	444	179	165	158	153	139	120

3.3.2 Species

A total of 44 species were recorded within the combined sites 1a and 1b.

The number of native species recorded in the monitoring plots in October 2019 was lower in Site 1a and similar in Site 1b to October 2018 (Table 2). The species that were no longer recorded on the sites were present in small numbers and have likely died or are difficult to find under the dense tree cover over most of the site.

Table 2: Number of Native Species within Monitoring Plots (perennial only)

Location	Treatment	Plot #	Number of Native Species							
			Oct 2015	Oct 2016	Mar 2017	Oct 2017	Mar 2018	Oct 2018	Mar 2019	Nov 2019
Site 1a	Topsoil + Seed + Seedlings	1	26	20	21	20	18	17	18	16
	T + S + Seedlings	2	27	19	18	17	17	15	13	12
	Seed + Seedlings	3	15	7	7	7	7	7	7	7
	Topsoil only	4	2	1	1	1	0	0	0	0
	Outside plots		4	15	10	17	16	17	17	13
	TOTAL		39	43	38	44	42	40	39	35
	Topsoil + Seed	1	1	31	19	15	16	16	16	14
Site 1b	T + S + Seedlings	2	4	29	17	18	15	15	12	12
	T + S + Seedlings	3	5	36	24	24	24	23	21	21
	Topsoil only	4	0	0	0	0	0	0	0	0
	Outside plots		16	7	11	15	17	16	16	12
	TOTAL		21	46	40	42	44	41	41	34

Species that were seeding well in November 2019 included *Acacia cyclops* (Plate 2 and 3) and *Acacia pulchella*. Some *A. pulchella* seedlings had germinated from the original planted tubestock (Plate 4).

Plate 2: *Acacia cyclops* seed on plants



Plate 3: *Acacia cyclops* seed on the ground



Plate 4: *Acacia pulchella* seedling



3.3.3 Life Form and Carnaby's Black Cockatoo Habitat Species

A total of 44 different native species were recorded over Sites 1a and 1b in November 2019 as a result of direct seeding and tubestock planting (Table 3, Appendix 6). The total includes 12 tree species, 9 large shrub species and 23 other species (low shrubs, herbs and sedges). The number of species in each life form was slightly lower than in October 2018.

Table 3: Life Form of Native species in Sites 1a and 1b (perennial only)

Location	Life Form	Number of Species				
		Oct 2015	Oct 2016	Oct 2017	Oct 2018	Nov 2019
Site 1a	Trees	9	9	10	8	10
	Large Shrubs	8	8	8	8	6
	Other	22	24	24	23	19
	Total	39	41	42	39	35
Site 1b	Trees	4	11	12	10	11
	Large Shrubs	5	9	9	8	8
	Other	12	24	21	22	16
	Total	21	44	42	40	35
Overall	Trees	9	11	12	12	12
	Large Shrubs	8	9	10	10	9
	Other	23	28	27	26	23
	Total	40	48	49	48	44

Of the 17 species listed in Table 5 of the CRMP as Key Carnaby's Black Cockatoo Habitat Species to be used in revegetation, a total of 14 were recorded on the site in November 2019 (Table 4). Two other species used by Carnaby's Black Cockatoo for foraging, *Banksia ilicifolia* and *Eucalyptus tottiana*, were also recorded on the site.

The density of Carnaby's habitat species in the six monitoring plots planted with tubestock ranged from 6 to 19 plants per 100m² (average = 11.8/100m²) (Appendix 8).

Table 4: Key Carnaby's Black Cockatoo Foraging Species Recorded on the Site in November 2019

Plant	Priority for planting for Carnaby's*	Location on Site
<i>Acacia saligna</i>	Low	-
<i>Banksia attenuata</i>	High	1a and 1b
<i>Banksia ilicifolia</i>	High	1b
<i>Banksia dallanneyi</i>	Low	1a and 1b
<i>Banksia grandis</i>	High	1a and 1b
<i>Banksia littoralis</i>	High	1b
<i>Banksia menziesii</i>	High	1a and 1b
<i>Banksia prionotes</i>	High	1a and 1b
<i>Banksia sessilis</i>	High	1a and 1b

<i>Corymbia calophylla</i>	High (feeding, roosting, breeding)	1a and 1b
<i>Eucalyptus gomphocephala</i>	High (feeding, roosting or breeding)	1a and 1b
<i>Eucalyptus marginata</i>	Medium (feeding, roosting)	1a and 1b
<i>Eucalyptus rudis</i>	Low (roosting only)	1a and 1b
<i>Eucalyptus tottiana</i>	Medium	1a and 1b
<i>Hakea lissocarpha</i>	Medium	1a and 1b
<i>Hakea prostrata</i>	High	1a and 1b
<i>Hakea ruscifolia</i>	Medium	-
<i>Jacksonia furcellata</i>	Medium	1b
<i>Xanthorrhoea preissii</i>	Medium	-

*Groom 2011 (Plants Used by Carnaby's Black Cockatoo, DEC)

3.4 Comparison Against Completion Criteria

Based on the results of the field work undertaken in 2017 at Eglinton and Yellagonga Regional Park, the completion criteria for the revegetation sites are shown in Table 5. Appendix 11 provides the background to the work undertaken and the calculations for the completion criteria.

Table 5: Yellagonga Regional Park Revegetation Sites Completion Criteria

Native species category	Species Richness	Density*	CBC Species*
Trees	100% of $2.0/100\text{m}^2 = 2.0/100\text{m}^2$	5.4 stems/ 100m^2	17 stems/ 100m^2
Large shrubs	80% of $2.3/100\text{m}^2 = 1.8/100\text{m}^2$	5.2 stems/ 100m^2	
Other (shrubs, herbs, sedges etc)	60% of $12.8/100\text{m}^2 = 7.7/100\text{m}^2$		

The comparison of the monitoring plot results with the completion criteria is shown in Table 6.

The species richness for all life forms is equal to or above the completion criteria. The number of tree species is well above the criteria.

The density of trees and large shrubs in the monitoring plots is well above the required completion criteria.

The density of Carnaby's Black Cockatoo habitat species is below the completion criteria in Site 1a and above in Site 1b. Overall the average of $13.8 \text{ stems}/100\text{m}^2$ is just below the completion criteria.

Table 6: Comparison of 2019 results with completion criteria

	Completion Criteria	Site 1a	Site 1b
Species Richness			
Trees	2.0/100m ²	3.7/100m ²	5.3/100m ²
Large Shrubs	1.8/100m ²	2.0/100m ²	3.3/100m ²
Other	7.7/100m ²	5.3/100m ²	7.0/100m ²
Density			
Trees	5.4 stems/100m ²	9.3 stems/100m ²	15.0 stems/100m ²
Large Shrubs	5.2 stems/100m ²	18.7 stems/100m ²	9.0 stems/100m ²
CBC Species	17 stems/100m ²	9.3 stems/100m ²	18.3 stems/100m ²

3.5 Weed Species

The number of weed species present in the monitoring plots in 2019 was very low in March with Fleabane the only species recorded. The number of weed species recorded in November 2019 was high and equivalent to October 2016 numbers (Table 7 and Appendix 10).

Table 7: Weed Species within Monitoring Plots

Location	Plots	Number of Weed Species										Nov 2019
		Oct 2014	Mar 2015	Oct 2015	Mar 2016	Oct 2016	Mar 2017	Oct 2017	Mar 2018	Oct 2018	Mar 2019	
Site 1a	1	21	6	2	3	6	3	4	2	4	0	10
	2	17	5	3	2	6	4	7	2	6	1	10
	3	10	4	1	1	3	5	2	1	1	0	9
	4	17	4	1	3	7	3	4	1	2	1	9
	Total	31	8	3	4	13	6	9	2	7	1	15
Site 1b	1	15	6	2	1	7	3	7	1	4	1	5
	2	15	6	1	3	11	4	6	1	9	1	8
	3	16	4	1	2	8	3	9	1	6	1	6
	4	21	6	1	3	13	4	12	1	3	1	10
	Total	29	9	2	4	16	4	15	1	13	1	14
Combined	Total	37	11	4	5	20	7	15	2	15	1	17

Fleabane (*Conyza bonariensis*) was particularly prevalent in Sites 1b in March 2019 despite the January target spraying for this species. Wild Oats (*Avena fatua*), was very dense on some berms and in some rows, including five of the monitoring plots in November 2019 (Plate 5).

Blue Lupin and Annual Veldtgrass were present at densities that will require controlling to reduce their numbers.

Caltrop (*Tribulus terrestris*) and Pie Melon (*Citrullus lanatus*) were not recorded in 2019 or 2018 and is considered to have effectively been removed from the site.

Both sites will need to be continually monitored and weed control applied as necessary in 2020. Fleabane, Wild Oats, Blue Lupin and Annual Veldtgrass will be the target for weed control in 2020.

Plate 5. Wild Oats in Site 1b



3.6 Dieback

No evidence of Dieback (*Phytophthora cinnamomi* or any other species) was observed during the 2018 monitoring.

3.7 Carnaby's Black Cockatoo Monitoring

Some Carnaby's Black Cockatoo foraging species were flowering well in 2019, including *Banksia prionotes* (Plate 6) and Marri (*Corymbia calophylla*) with some seed production on the Marri saplings (Plate 7).

There was no evidence of any foraging by Carnaby's Black Cockatoo in the two monitoring periods in 2019.

Plate 6: *Banksia prionotes* Site 1b March 2019



Plate 7: Marri nuts Site 1b March 2019



4 SUMMARY AND RECOMMENDATIONS

The 2019 monitoring of Sites 1a and 1b in the Yellagonga Regional Park has resulted in the following:

Summary

- Revegetation on both sites continues to grow well in terms of overall plant height and cover;
- Plant density in the three 20m x 5m monitoring plots in Site 1a that were planted in 2015 ranged from 38 - 58 plants giving a density of 0.38 – 0.58 plants/m². The reduction in plant numbers is due mainly to the death of *Conostylis candidans* plants which represented a third of all plant deaths since October 2018. The gradual decline in plant survival is offset by the healthy growth of all species, with tree species up to 5m high and shrubs species up to 2m high. Plant density, while not measured, is increasing and is dense in many rows as evidenced by the monitoring photographs;
- Plant density in the three 20m x 5m monitoring plots in Site 1b that were planted in 2016 ranged from 23 - 64 plants giving a density of 0.23 – 0.64 plants/m². Growth of surviving plants is healthy;
- A total of 44 native species have been recorded over Sites 1a and 1b as a result of direct seeding and tubestock planting. The total includes 12 tree species, 9 large shrub species and 23 other species (low shrubs, herbs and sedges);
- Fourteen of the 17 species listed in the CRMP as Key Carnaby's Black Cockatoo Habitat Species to be used in revegetation were recorded on the site in 2019. Two other species used by Carnaby's as foraging habitat, *Banksia ilicifolia* and *Eucalyptus tottiana*, also occur on the site. The density of CBC species averaged 9.3 stems/100m² in Site 1a and 18.3 stems/100m² in Site 1b;
- Completion criteria for species richness, plant density and Carnaby's Black Cockatoo habitat species were calculated from studies undertaken in 2017. The results from the monitoring plots indicate that completion criteria for species richness and plant density are being met as of November 2019. Completion criteria for Carnaby's Black Cockatoo habitat species is below for Site 1a and above for Site 1b;
- Monitoring for Carnaby's Black Cockatoo use on the sites was undertaken in 2019. No evidence of foraging on *Banksia* species or fruiting Marri saplings was observed; and
- Weed control measures for Fleabane were undertaken in January 2019. No further weed control was undertaken in 2019. The monitoring results in November 2019 showed a high number of weed species and density on parts of the site, particularly Wild Oats as well as Annual Veldtgrass and Blue Lupin.

Recommendations

- Completion criteria for species richness, plant density and Carnaby's Black Cockatoo habitat species are currently being met or are very close. Therefore, while there was a continued reduction in plant density in both sites, no infill planting is required in 2020;
- Weed control for Fleabane, Wild Oats, Annual Veldtgrass and Blue Lupin in the rows and on the berms will need to be continued in 2020 to keep these species at low densities. Complete eradication is probably unlikely given the presence of weeds in surrounding paddocks; and

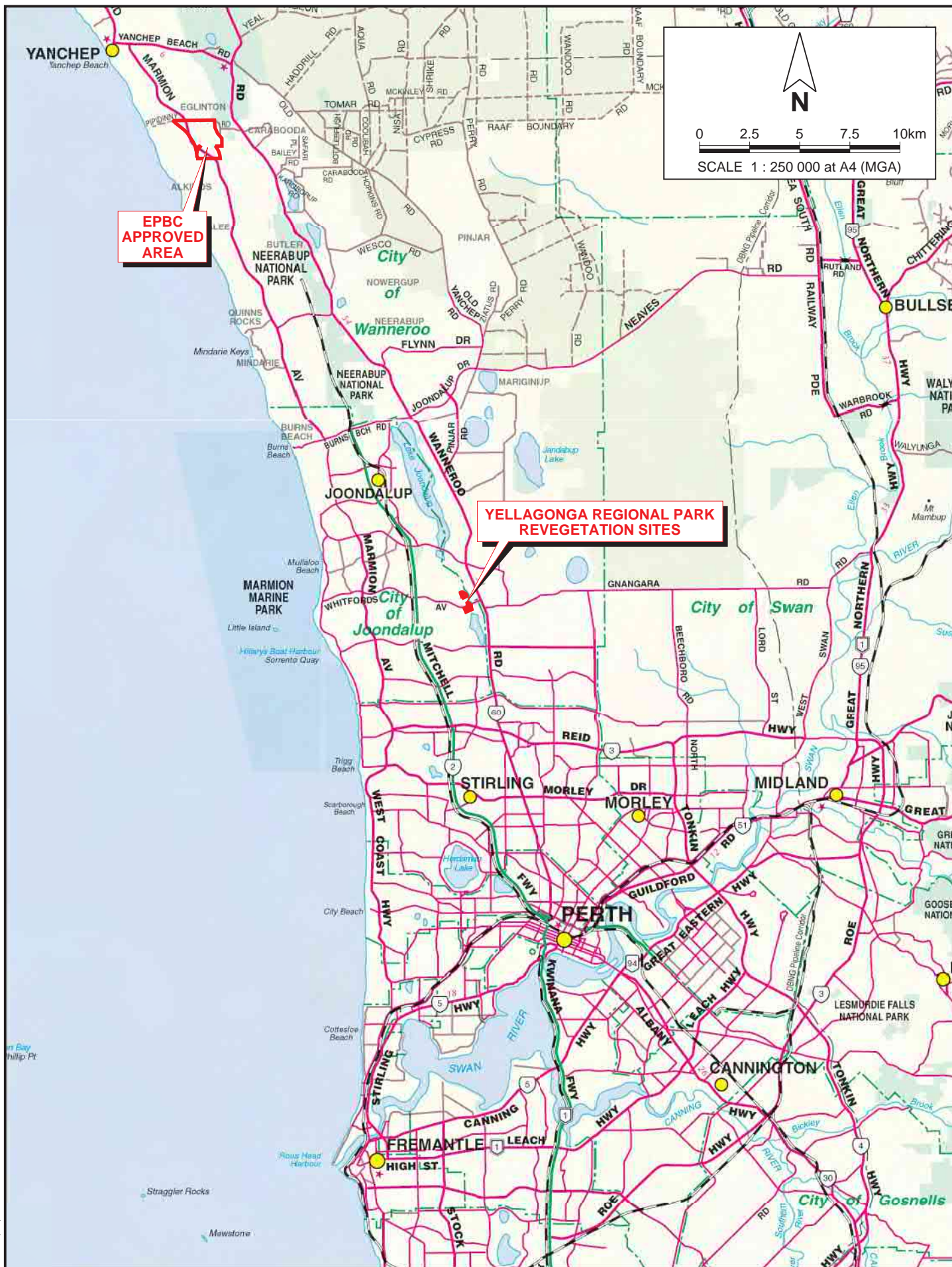
- According to the CRMP the revegetation sites are to be monitored for a minimum of 5 years after planting. The 2020 year will be 6 years after planting of Site 1a and 5 years after planting of Site 1b and, therefore, is recommended to be the last year for monitoring the two Sites for plant density and species richness. Use of the site by Carnaby's Black Cockatoo is intended to be ongoing until the year 2031.

5 REFERENCES

Groom (2011). *Plants Used by Carnaby's Black Cockatoo*. Department of Environment and Conservation. 15 April 2011.

PGV Environmental (2016) *Clearing and Revegetation Management Plan V8*. Prepared for Eglinton Estates. Perth, Western Australia.

FIGURES





APPENDIX 1

**TRANEN PAR YELLAGONGA OFFSET
190401 WEED CONTROL**

Eglington Yellagonga Offsets – PGV Environmental / Stockland

Post Activity Report – Spring and Summer Weed Control

Activity Date(s):	19/09/18 to 12/01/19	Conducted By:	Allan Bennett
Site Reference:	Yellagonga 1A and 1B	Area (ha):	6.2

Site Condition

- Site 1A continues to establish well and most plants are mature and flowering/fruiting
- Site 1B also continues to establish, although there are large bare areas where native plants have not established, which is likely due to soil issues associated with historical land uses
- Wild Oat (*Avena fatua*) was the most prevalent weed species during spring, and Fleabane (*Conyza sp.*) was the most prevalent species during summer.

Action Taken

Date(s):	Activity	Description
12/09/18 to 18/09/18	Spring weed control	All weeds were treated across both sites with herbicide.
07/01/19 to 10/01/19	Summer weed control	All weeds were treated across both sites with herbicide.

Additional Comments

- Weeds treated during these control events include and Fleabane (*Conyza sp.*), Caltrop (*Tribulus terrestris*), Perennial Veldt Grass (*E. calycina*), Wild Oat (*Avena fatua*), Sour Sob (*Oxalis pes-caprae*), and Lupin (*Lupinus cosentinii*).

Prior Works History

- 2014 – initial weed control, fence installation, topsoil translocation and seed broadcasting at 1A
- 2015 – autumn and spring weed control, seedling planting at 1A and seed broadcasting at 1B
- 2016 – autumn and spring weed control, seedling planting at 1B
- 2017 – autumn, winter and spring weed control
- 2018 – summer and winter weed control.

Photographs





1B *Acacia lasiocarpa* seed production – 05/10/18



1A revegetation area – 05/10/18

APPENDIX 2

PHOTOS OF MONITORING PLOTS
OCTOBER 2015 TO NOVEMBER 2019

Photo Comparison October 2015 – November 2019



Site 1a Plot 1 October 2015



Site 1a Plot 1 March 2016



Site 1a Plot 1 October 2016



Site 1a Plot 1 March 2017



Site 1a Plot 1 October 2017



Site 1a Plot 1 March 2018



Site 1a Plot 1 October 2018

Photo Comparison October 2015 – November 2019



Site 1a Plot 1 March 2019



Site 1a Plot 1 November 2019

Photo Comparison October 2015 – November 2019



Site 1a Plot 2 October 2015



Site 1a Plot 2 March 2016



Site 1a Plot 2 October 2016



Site 1a Plot 2 March 2017



Site 1a Plot 2 October 2017



Site 1a Plot 2 March 2018



Site 1a Plot 2 October 2018

Photo Comparison October 2015 – November 2019



Site 1a Plot 2 March 2019



Site 1a Plot 2 November 2019

Photo Comparison October 2015 – November 2019



Site 1a Plot 3 October 2015



Site 1a Plot 3 March 2016



Site 1a Plot 3 October 2016



Site 1a Plot 3 March 2017



Site 1a Plot 3 October 2017



Site 1a Plot 3 March 2018



Site 1a Plot 3 October 2018

Photo Comparison October 2015 – November 2019



Site 1a Plot 3 March 2019



Site 1a Plot 3 November 2019

Photo Comparison October 2015 – November 2019



Site 1a Plot 4 October 2015



Site 1a Plot 4 March 2016



Site 1a Plot 4 October 2016



Site 1a Plot 4 March 2017



Site 1a Plot 4 October 2017



Site 1a Plot 4 March 2018



Site 1a Plot 4 October 2018

Photo Comparison October 2015 – November 2019



Site 1a Plot 4 March 2019



Site 1a Plot 4 November 2019

Photo Comparison October 2015 – November 2019



Site 1b Plot 1 October 2015



Site 1b Plot 1 March 2016



Site 1b October 2016



Site 1b Plot 1 March 2017



Site 1b Plot 1 October 2017



Site 1b Plot 1 March 2018



Site 1b Plot 1 October 2018

Photo Comparison October 2015 – November 2019



Site 1b Plot 1 March 2019



Site 1b Plot 1 November 2019

Photo Comparison October 2015 – November 2019



Site 1b Plot 2 October 2015



Site 1b Plot 2 March 2016



Site 1b Plot 2 October 2016



Site 1b Plot 2 March 2017



Site 1b Plot 2 October 2017



Site 1b Plot 2 March 2018



Site 1b Plot 2 October 2018

Photo Comparison October 2015 – November 2019



Site 1b Plot 2 March 2019



Site 1b Plot 2 November 2019

Photo Comparison October 2015 – November 2019



Site 1b Plot 3 October 2015



Site 1b Plot 3 March 2016



Site 1b Plot 3 October 2016



Site 1b Plot 3 March 2017



Site 1b Plot 3 October 2017



Site 1b Plot 3 March 2018



Site 1b Plot 3 October 2018

Photo Comparison October 2015 – November 2019



Site 1b Plot 3 March 2019



Site 1b Plot 3 November 2019

Photo Comparison October 2015 – November 2019



Site 1b Plot 4 October 2015



Site 1b Plot 4 March 2016



Site 1b Plot 4 October 2016



Site 1b Plot 4 March 2017



Site 1b Plot 4 October 2017



Site 1b Plot 4 March 2018



Site 1b Plot 4 October 2018

Photo Comparison October 2015 – November 2019



Site 1b Plot 4 March 2019



Site 1b Plot 4 November 2019

APPENDIX 3
MONITORING PLOT DATA MARCH 2019
NATIVE SPECIES

Yellagonga Rehabilitation Monitoring March 2019 – Native Species

Species	Site 1a						Total in Plots Mar 2019	Total in Plots Oct 2018	Site 1b						Total in Plots Mar 2019	Total in Plots Oct 2018
	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)			Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)		
<i>Acacia cyclops</i>	14										4					
<i>Acacia huegelii</i>					+				1	1	1					
<i>Acacia lasiocarpa</i>		2									7					
<i>Acacia pulchella</i>	2	1	3								4			+		
<i>Acacia saligna</i>													+			
<i>Acacia stenoptera</i>					+				1		4					
<i>Acanthocarpus preissii</i>																
<i>Allocasuarina fraseriana</i>	3	1														
<i>Allocasuarina humilis</i>	1	8									2					
<i>Anigozanthos manglesii</i>																
<i>Austrostipa flavescens</i>																
<i>Banksia attenuata</i>					+				6	1	1					
<i>Banksia dallanneyi</i>					+						1					
<i>Banksia grandis</i>					+								+			
<i>Banksia ilicifolia</i>													+			
<i>Banksia littoralis</i>													+			
<i>Banksia menziesii</i>			2						5	4	1					
<i>Banksia prionotes</i>		2							5	3	5					
<i>Banksia sessilis</i>					+								+			
<i>Bossiaea eriocarpa</i>					+								+			
<i>Calothamnus quadrifidus</i>	1								1							
<i>Calothamnus sanguineus</i>	19		4						2		7					
<i>Conostylis aculeata</i>	1	11							1							
<i>Conostylis candicans</i>					+											
<i>Corymbia calophylla</i>	1								1	1	1					
<i>Daviesia divaricata</i>					+											
<i>Dianella revoluta</i> var. <i>divaricata</i>					+								+			
<i>Eucalyptus gomphocephala</i>	3	3	5						1	2	3					
<i>Eucalyptus marginata</i>					+								+			
<i>Eucalyptus rudis</i>													+			
<i>Eucalyptus todtiana</i>	3	4	3								8					
<i>Gastrolobium capitatum</i>					+								+			
<i>Gompholobium tomentosum</i>					+								+			
<i>Hakea prostrata</i>	1								3	1	2					
<i>Hakea lissocarpha</i>	1	1								1	1					
<i>Hakea ruscifolia</i>																
<i>Hakea trifurcata</i>		2									1					
<i>Hemiandra pungens</i>	1												+			
<i>Hovea trisperma</i>																
<i>Hypocalymma angustifolium</i>													+			
<i>Hypocalymma robustum</i>																
<i>Jacksonia calcicola</i>	3	1							1	3						
<i>Jacksonia furcellata</i>									3	3	1					
<i>Jacksonia sternbergiana</i>													+			
<i>Juncus pallidus</i>																

Species	Site 1a						Total in Plots Mar 2019	Total in Plots Oct 2018	Site 1b						Total in Plots Mar 2019	Total in Plots Oct 2018
	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)			Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)		
<i>Kennedia prostrata</i>																
<i>Kunzea glabrescens</i>	3	5	24						4	6	5					
<i>Lomandra maritima</i>	1															
<i>Macrozamia riedlei</i>					+								+			
<i>Melaleuca huegelii</i>	6										3					
<i>Melaleuca raphiophylla</i>													+			
<i>Melaleuca systema</i>	5	3	3						3	3	8					
<i>Orthrosanthus laxus</i>					+											
<i>Patersonia occidentalis</i>									2							
<i>Phyllanthus calycinus</i>																
<i>Ptilotus polystachyus</i>																
<i>Schoenus grandiflorus</i>																
<i>Spyridium globulosum</i>					+											
<i>Xanthorrhoea brunonis</i>					+											
No. seedlings in Plots	69	44	44	0			157		40	29	70	0				139
No. native species	18	13	7	0	17	0	39		16	12	21	0	16	1		41
No. seedlings in Plots Oct 2018	75	60	45	0				180	45	31	77	0				153
No. native species Oct 2018	17	15	7	0	17	0		40	16	15	23	0	16	1		41
No. seedlings in Plots Mar 2018	78	74	43	0				195	51	32	75	0				158
No. native species Mar 2018	18	17	7	0	16	0		42	16	15	24	0	17	1		44
No. seedlings in Plots Oct 2017	87	85	47	1				220	56	32	77	0				165
No. native species Oct 2017	20	17	7	1	17	0		44	15	18	24	0	15	1		42
No. seedlings in Plots Mar 2017	90	99	50	1				240	61	42	79	0				179
No. native species Mar 2017	21	18	7	1	10	0		38	19	17	24	0	11			40
No. seedlings in Plots Oct 2016	99	106	53	1				259	144	131	169	0				444
No. native species Oct 2016	20	19	7	1	15	0		43	31	29	36	0	7	0		46
No. seedlings in Plots Oct 2015	135	161	89	2				387	1	6	10	0				17
No. native species Oct 2015	26	27	15	2	4	0		39	1	4	5	0	16			21

T=Topsoil, S=Seeded

APPENDIX 4
MONITORING PLOT DATA NOVEMBER
2019
NATIVE SPECIES

Yellagonga Rehabilitation Monitoring November 2019 – Native Species

[illegible]

Species	Site 1a						Total in Plots Nov 2019		Site 1b						Total in Plots Nov 2019	
	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)			Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)		
<i>Kennedia prostrata</i>																
<i>Kunzea glabrescens</i>	4	4	27						4	5	3					
<i>Lomandra maritima</i>	1															
<i>Macrozamia riedlei</i>																
<i>Melaleuca huegelii</i>	6										3					
<i>Melaleuca raphiophylla</i>													+			
<i>Melaleuca systema</i>	4	3	3						3	2	7					
<i>Orthrosanthus laxus</i>																
<i>Patersonia occidentalis</i>					+											
<i>Phyllanthus calycinus</i>																
<i>Ptilotus polystachyus</i>																
<i>Schoenus grandiflorus</i>																
<i>Spyridium globulosum</i>					+											
<i>Xanthorrhoea brunonis</i>																
No. seedlings in Plots	58	38	45	0			141		33	23	64				120	
No. native species	16	12	7	0	13	0	35		14	12	21	0	12	1	34	
No. seedlings in Plots Mar 2019	69	44	44	0				157	40	29	70	0				139
No. native species Mar 2019	18	13	7	0	17	0		39	16	12	21	0	16	1		41
No. seedlings in Plots Oct 2018	75	60	45	0				180	45	31	77	0				153
No. native species Oct 2018	17	15	7	0	17	0		40	16	15	23	0	16	1		41
No. seedlings in Plots Mar 2018	78	74	43	0				195	51	32	75	0				158
No. native species Mar 2018	18	17	7	0	16	0		42	16	15	24	0	17	1		44
No. seedlings in Plots Oct 2017	87	85	47	1				220	56	32	77	0				165
No. native species Oct 2017	20	17	7	1	17	0		44	15	18	24	0	15	1		42
No. seedlings in Plots Mar 2017	90	99	50	1				240	61	42	79	0				179
No. native species Mar 2017	21	18	7	1	10	0		38	19	17	24	0	11			40
No. seedlings in Plots Oct 2016	99	106	53	1				259	144	131	169	0				444
No. native species Oct 2016	20	19	7	1	15	0		43	31	29	36	0	7	0		46
No. seedlings in Plots Oct 2015	135	161	89	2				387	1	6	10	0				17
No. native species Oct 2015	26	27	15	2	4	0		39	1	4	5	0	16			21

T=Topsoil, S=Seeded

APPENDIX 5

MONITORING PLOT DATA MARCH 2018

NATIVE SPECIES LIFEFORM

Yellagonga Rehabilitation Monitoring March 2019 – Native Species Lifeform

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
TREES													
<i>Allocasuarina fraseriana</i>	Sheoak	3	1										
<i>Banksia attenuata</i>	Slender Banksia							6	1	1			
<i>Banksia grandis</i>	Bull Banksia					+						+	
<i>Banksia ilicifolia</i>	Holly-leaved Banksia											+	
<i>Banksia littoralis</i>	Swamp Banksia											+	
<i>Banksia menziesii</i>	Menzies Banksia			2				5	4	1			
<i>Banksia prionotes</i>			2					5	3	5			
<i>Corymbia calophylla</i>	Marri	1						1	1	1			
<i>Eucalyptus gomphocephala</i>	Tuart	3	3	5				1	2	3			
<i>Eucalyptus marginata</i>	Jarra					+						+	
<i>Eucalyptus rudis</i>	Flooded Gum											+	
<i>Eucalyptus tottiana</i>	Coastal Blackbutt	3	4	3						8			
Total (per 100m ²)		10	10	10				18	11	19			
No. Species		4	4	3				5	5	6			
<i>Acacia cyclops</i>		14								4			
<i>Acacia saligna</i>												+	
<i>Banksia sessilis</i>	Parrot Bush					+						+	
<i>Hakea prostrata</i>	Harsh Hakea	1						3	1	2			
<i>Jacksonia furcellata</i>	Grey Stinkwood							3	3	1			

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Jacksonia sternbergiana</i>												+	
<i>Kunzea glabrescens</i>	Spearwood	3	5	24				4	6	5			
<i>Macrozamia riedlei</i>	Zamia Palm					+						+	
<i>Melaleuca huegelii</i>	Chenille Honey-myrtle	6								3			
<i>Melaleuca raphiophylla</i>	Paperbark											+	
<i>Spyridium globulosum</i>	Basket Bush					+							
Total (per 100m²)		24	5	24				10	10	15			
No. Species		4	1	1				3	3	5			
<i>Acacia huegelii</i>						+		1	1	1			
<i>Acacia lasiocarpa</i>	Panjang		2							7			
<i>Acacia pulchella</i>	Prickly Moses	2	1	3						4			+
<i>Acacia stenoptera</i>	Narrow Winged Wattle					+		1		4			
<i>Acanthocarpus preissii</i>	Prickle Lily												
<i>Allocasuarina humilis</i>	Dwarf Sheoak	1	8							2			
<i>Anigozanthos manglesii</i>	Red and Green Kangaroo Paw												
<i>Austrostipa flavescens</i>													
<i>Banksia dallanneyi</i>	Couch Honeypot					+				1			
<i>Bossiaea eriocarpa</i>	Common Brown Pea					+						+	
<i>Calothamnus quadrifidus</i>	One-sided Bottlebrush	1						1					

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Schoenus grandiflorus</i>	Large Flowered Bogrush												
<i>Xanthorrhoea brunonis</i>						+							
Total (per 100m²)		35	29	10				12	8	36			
No. Species		10	8	3				8	4	10			
TOTAL ALL LIFE FORMS IN PLOTS /100m2		69	44	44				40	29	70			
Density/m2		0.69	0.44	0.44				0.40	0.29	0.70			
Total Species		18	13	7				16	12	21			

T=Topsoil, S=Seeded

APPENDIX 6

MONITORING PLOT DATA NOVEMBER
2019

NATIVE SPECIES LIFEFORM

Yellagonga Rehabilitation Monitoring November 2019 – Native Species Lifeform

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
TREES													
<i>Allocasuarina fraseriana</i>	Sheoak	1	1										
<i>Banksia attenuata</i>	Slender Banksia					+		4	1	1			
<i>Banksia grandis</i>	Bull Banksia					+						+	
<i>Banksia ilicifolia</i>	Holly-leaved Banksia											+	
<i>Banksia littoralis</i>	Swamp Banksia											+	
<i>Banksia menziesii</i>	Menzies Banksia			2				5	4	1			
<i>Banksia prionotes</i>			2					5	2	5			
<i>Corymbia calophylla</i>	Marri	1						1	1	1			
<i>Eucalyptus gomphocephala</i>	Tuart	3	3	5				1	2	3			
<i>Eucalyptus marginata</i>	Jarra					+						+	
<i>Eucalyptus rudis</i>	Flooded Gum					+						+	
<i>Eucalyptus tottiana</i>	Coastal Blackbutt	2	5	3						8			
Total (per 100m²)		7	11	10				16	10	19			
No. Species		4	4	3				5	5	6			
LARGE SHRUBS													
<i>Acacia cyclops</i>		14								4			
<i>Acacia saligna</i>													
<i>Banksia sessilis</i>	Parrot Bush					+						+	
<i>Hakea prostrata</i>	Harsh Hakea	1						3		1			
<i>Jacksonia furcellata</i>	Grey Stinkwood							1	2	1			

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Jacksonia sternbergiana</i>												+	
<i>Kunzea glabrescens</i>	Spearwood	4	4	27				4	5	3			
<i>Macrozamia riedlei</i>	Zamia Palm												
<i>Melaleuca huegelii</i>	Chenille Honey myrtle	6								3			
<i>Melaleuca raphiophylla</i>	Paperbark											+	
<i>Spyridium globulosum</i>	Basket Bush					+							
Total (per 100m²)		25	4	27				8	7	12			
No. Species		4	1	1				3	2	5			
SMALL SHRUBS													
<i>Acacia huegelii</i>						+		1	1	1			
<i>Acacia lasiocarpa</i>	Panjang		2							7			
<i>Acacia pulchella</i>	Prickly Moses	1	1	1					1	4			+
<i>Acacia stenoptera</i>	Narrow Winged Wattle							1		2			
<i>Acanthocarpus preissii</i>	Prickle Lily					+							
<i>Allocasuarina humilis</i>	Dwarf Sheoak		8							1			
<i>Anigozanthos manglesii</i>	Red and Green Kangaroo Paw												
<i>Austrostipa flavescens</i>						+							
<i>Banksia dallanneyi</i>	Couch Honeypot					+				1			
<i>Bossiaea eriocarpa</i>	Common Brown Pea												
<i>Calothamnus quadrifidus</i>	One-sided Bottlebrush	1						1					

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Schoenus grandiflorus</i>	Large Flowered Bogrush												
<i>Xanthorrhoea brunonis</i>													
Total (per 100m²)		26	23	8				9	6	33			
No. Species		8	7	3				6	5	10			
TOTAL ALL LIFE FORMS IN PLOTS /100m2		58	37	45				33	23	64			
Density/m2		0.58	0.37	0.45				0.33	0.23	0.64			
Total Species		16	12	7				14	12	21			

T=Topsoil, S=Seeded

APPENDIX 7

MONITORING PLOT DATA MARCH
2019

CARNABY'S BLACK COCKATOO
SPECIES

Yellagonga Rehabilitation Monitoring March 2019 – Carnaby's Cockatoo Species

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
TREES													
<i>Banksia attenuata</i>	Slender Banksia					+		6	1	1			
<i>Banksia grandis</i>	Bull Banksia					+						+	
<i>Banksia ilicifolia</i>	Holly-leaved Banksia											+	
<i>Banksia littoralis</i>	Swamp Banksia											+	
<i>Banksia menziesii</i>	Menzies Banksia			2				5	4	1			
<i>Banksia prionotes</i>			2					5	3	5			
<i>Corymbia calophylla</i>	Marri	1						1	1	1			
<i>Eucalyptus gomphocephala</i>	Tuart	3	3	5				1	2	3			
<i>Eucalyptus marginata</i>	Jarrah					+						+	
<i>Eucalyptus rudis</i>	Flooded Gum											+	
<i>Eucalyptus tottiana</i>	Coastal Blackbutt	3	4	3						8			
Total (per 100m2)		7	9	10				18	11	19			
<i>Acacia saligna</i>												+	
<i>Banksia sessilis</i>	Parrot Bush					+						+	
<i>Hakea prostrata</i>	Harsh Hakea	1						3	1	2			
<i>Jacksonia furcellata</i>	Grey Stinkwood							3	3	1			
Total (per 100m2)		1	0	0				6	4	3			

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Banksia dallanneyi</i>	Couch Honeypot					+				1			
<i>Hakea lissocarpha</i>	Honey Bush	1	1						1	1			
Total (per 100m2)		1	1						1	2			
TOTAL ALL LIFE FORMS IN PLOTS /100m2		9	10	10				24	16	24			
Density/m2		0.09	0.10	0.10				0.24	0.16	0.24			

T=Topsoil, S=Seeded

APPENDIX 8

MONITORING PLOT DATA NOVEMBER
2019

CARNABY'S BLACK COCKATOO
SPECIES

Yellagonga Rehabilitation Monitoring November 2019 – Carnaby's Cockatoo Species

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
TREES													
<i>Banksia attenuata</i>	Slender Banksia					+		4	1	1			
<i>Banksia grandis</i>	Bull Banksia					+						+	
<i>Banksia ilicifolia</i>	Holly-leaved Banksia											+	
<i>Banksia littoralis</i>	Swamp Banksia											+	
<i>Banksia menziesii</i>	Menzies Banksia			2				5	4	1			
<i>Banksia prionotes</i>			2					5	2	5			
<i>Corymbia calophylla</i>	Marri	1						1	1	1			
<i>Eucalyptus gomphocephala</i>	Tuart	3	3	5				1	2	3			
<i>Eucalyptus marginata</i>	Jarrah					+						+	
<i>Eucalyptus rudis</i>	Flooded Gum					+						+	
<i>Eucalyptus totdtiana</i>	Coastal Blackbutt	2	5	3						8			
Total (per 100m2)		6	10	10				16	10	19			
Tall Shrubs													
<i>Acacia saligna</i>													
<i>Banksia sessilis</i>	Parrot Bush					+						+	
<i>Hakea prostrata</i>	Harsh Hakea	1						3		1			
<i>Jacksonia furcellata</i>	Grey Stinkwood							1	2	1			
Total (per 100m2)		1	0	0				4	2	2			
Small Shrubs													

Species	Common Name	Site 1a						Site 1b					
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)	Other Sightings (T+S)	Other Sightings (T)
<i>Banksia dallanneyi</i>	Couch Honeypot					+				1			
<i>Hakea lissocarpha</i>	Honey Bush	1								1			
Total (per 100m2)		1	0	0				0	0	2			
TOTAL ALL LIFE FORMS IN PLOTS /100m2		8	10	10				20	12	23			
Density/m2		0.08	0.10	0.10				0.20	0.12	0.23			

T=Topsoil, S=Seeded

APPENDIX 9
MONITORING PLOT DATA MARCH 2019
WEED SPECIES

Yellagonga Rehabilitation Monitoring March 2019 – Weed Species

Species	Common Name	Site 1a				Site 1b			
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)
<i>Arctotheca calendula</i>	Cape Weed								
<i>Avena fatua</i>	Wild Oats								
<i>Bromus diandrus</i>	Great Brome								
<i>Carpobrotus edulis</i>	Hottentot Fig								
<i>Conyza bonariensis</i>	Flaxleaf Fleabane		+		c	c	c	c	c
<i>Crassula glomerata</i>									
<i>Cynodon dactylon</i>	Couch Grass								
<i>Dischisma capitatum</i>									
<i>Ehrharta calycina</i>	Annual Veldt Grass								
<i>Eragrostis curvula</i>	African Lovegrass								
<i>Erodium cicutarium</i>	Storksbill								
<i>Euphorbia terracina</i>	Geraldton Carnation Weed								
<i>Hypochaeris glabra/radicata</i>	Flatweed								
<i>Lagurus ovatus</i>	Hare's Tail Grass								
<i>Lolium perenne</i>	Ryegrass								
<i>Lupinus cosentinii</i>	Blue Lupin								
<i>Lysimachia arvensis</i>	Pimpernel								
<i>Malva parviflora</i>	Marshmallow								
<i>Oenothera drummondii</i>	Beach Evening Primrose								
<i>Oenothera stricta</i>	Common Evening Primrose								
<i>Orobanche minor</i>	Lesser Broomrape								
<i>Pelargonium capitatum</i>	Rose Pelargonium								
<i>Sonchus oleraceus</i>	Sow Thistle								
<i>Tribulus terrestris</i>	Caltrop								
<i>Trifolium campestre</i>	Clover								
<i>Wahlenbergia capensis</i>									
Total Species		1				1			
		1				1			

T=Topsoil, S=Seeded, c=common, +=some

Other weed species requiring control:

+

APPENDIX 10

MONITORING PLOT DATA NOVEMBER
2019

WEED SPECIES

Yellagonga Rehabilitation Monitoring November 2019 – Weed Species

Species	Common Name	Site 1a				Site 1b			
		Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (S)	Plot 4 (T)	Plot 1 (T+S)	Plot 2 (T+S)	Plot 3 (T+S)	Plot 4 (T)
<i>Arctotheca calendula</i>	Cape Weed	+							
<i>Avena fatua</i>	Wild Oats	c	c	c	+		+		
<i>Brassica tournefortii</i>	Mediterranean Turnip	+							
<i>Bromus diandrus</i>	Great Brome		+	c	+	+			+
<i>Carpobrotus edulis</i>	Hottentot Fig								
<i>Conyza bonariensis</i>	Flaxleaf Fleabane	vc	vc			+		+	vc
<i>Crassula glomerata</i>		+	+	+	c		c		+
<i>Cynodon dactylon</i>	Couch Grass								
<i>Dischisma capitatum</i>									
<i>Ehrharta calycina</i>	Annual Veldt Grass	+	+	+	+		c		+
<i>Eragrostis curvula</i>	African Lovegrass								
<i>Erodium cicutarium</i>	Storksbill	c	c		vc				+
<i>Euphorbia terracina</i>	Geraldton Carnation Weed								
<i>Hypochaeris glabra/radicata</i>	Flatweed								
<i>Lagurus ovatus</i>	Hare's Tail Grass								
<i>Lolium perenne</i>	Ryegrass						+		+
<i>Lupinus cosentinii</i>	Blue Lupin	c	+		c	+		+	c
<i>Lysimachia arvensis</i>	Pimpernel			c			+		c
<i>Malva parviflora</i>	Marshmallow								
<i>Oenothera drummondii</i>	Beach Evening Primrose						C		
<i>Oenothera stricta</i>	Common Evening Primrose		+	+	+			+	+
<i>Orobanche minor</i>	Lesser Broomrape			+					
<i>Pelargonium capitatum</i>	Rose Pelargonium								
<i>Sonchus oleraceus</i>	Sow Thistle	+	+	+		+		+	
<i>Tribulus terrestris</i>	Caltrop								
<i>Trifolium campestre</i>	Clover			+	+	+	+	+	+
<i>Wahlenbergia capensis</i>		c	c		vc		+	+	
Total Species		15				14			
		17							

T=Topsoil, S=Seeded, c=common, +=some

Other weed species requiring control:

+

APPENDIX 11

COMPLETION CRITERIA MEMO

Eglinton CRMP – Yellagonga Regional Park Rehabilitation - Completion Criteria

1 Background

The Clearing and Revegetation Management Plan (CRMP) prepared as part of the EPBC Act approval of the Eglinton Estates development contained the requirement to rehabilitate 12.7ha of new Carnaby's Black Cockatoo (CBC) habitat in Yellagonga Regional Park (YRP).

Revegetation of two of the four areas identified for rehabilitation in YRP commenced in 2014. The plant species used for revegetation focussed on CBC foraging species that naturally occur in YRP as well as at Eglinton. Non-CBC habitat plant species were also included in the species list in order to restore a sustainable natural ecosystem appropriate to the YRP landscape, ie. both an overstorey and understorey of native plants.

Monitoring of the progress of the seed germination and tube stock planting has occurred twice year from 2015 and is ongoing.

According to the CRMP, the success of the rehabilitation works will be assessed using a number of factors including:

- Native plant density
- Species richness
- Weed competition
- Ecological processes (i.e. flowering and reproduction, fauna utilisation, etc.).

Table 11 of the CRMP, which was to include the quantitative numbers used to determine plant density and species richness was left in draft form pending surveys in nearby remnant bushland as well as in Eglinton to determine realistic values rather than determine the criteria on an arbitrary basis.

This memo provides the results of work undertaken by PGV Environmental to determine the completion criteria for Table 11.

2 Methodology

Table 11 proposes three different completion criteria to be determined as follows:

- The species richness of trees, large shrubs and other lifeforms (small shrubs, herbs, sedges etc) in nearby remnant bushland reference sites (most likely Neerabup National Park) but not necessarily;
- The density of trees, large shrubs and other lifeforms in nearby remnant bushland reference sites; and
- The density of Carnaby's Black Cockatoo species in each lifeform in areas of CBC habitat cleared at the Eglinton site.

Species Richness

The species richness of reference site in Neerabup National Park could have been determined either by establishing and scoring new sites or by using published information. It was determined to be far more cost effective to use existing published high quality data. That was found to be available in the Level 2 flora survey of the Mitchell Freeway extension from Burns Beach Road to Romeo Road undertaken by GHD for Main Roads Western Australia in 2013.

The Mitchell Freeway extension flora survey included sampling species from twenty-nine 10m x 10m quadrats in September to October 2013. The range of vegetation types included Banksia woodland, Tuart woodland, Jarrah-Banksia woodland, Banksia woodland and heath and heath.

The YRP rehabilitation sites are aiming to achieve a woodland vegetation structure with a variety of tree species including Tuart, Jarrah, Marri, Banksia, Sheoak and Eucalyptus tottiana. Eighteen of the GHD quadrats were sampled from vegetation types that match the structure being aimed for on the YRP rehabilitation sites. Therefore, the species richness of all perennial native species in the lifeforms of Tree, Large Shrubs (greater than 1m) and Other were counted.

Overall Plant Density

The quadrat data from the Mitchell Freeway extension flora survey did not contain information on the density of each species. Therefore, the density of Trees and Large Shrubs (>1m) was measured from newly established plots in and around Yellagonga Regional Park. The condition of the plant density reference plots was not of sufficient quality to count species richness and be used for that purpose. However, while the understorey was mostly in poor condition, the tree and large shrubs layer appeared to be in good condition and suitable to be used as reference plots for plant density completion criteria.

Four sites were chosen for the density count. Three were in the Yellagonga Regional Park on the western and eastern side of Lake Joondalup. The fourth was in a local bushland area just to the north of the Wanneroo Council Offices on Dundobar Road. At each location a 40m x 10m plot was measured out and all trees and large shrubs >1m high were counted. The survey was done on 23 August 2017.

An attempt was made to count the number of Other lifeforms (small shrubs, sedges, herbs etc) in an area with very good condition understorey. It was found to be extremely difficult to count individual plants as an understorey with 70-80% cover contains an intermingling mix of low shrubs, sedges, herbs, climbing plants etc.

As the understorey is not important for Carnaby's Black Cockatoo, and that any attempt to count plants in their natural environment could lead to a very uncertain figure, it was decided that the density of Other species was not required for the completion criteria.

CBC Species Density

The CRMP requires the rehabilitation areas to contain Carnaby's Black Cockatoo foraging and breeding habitat species density to be no less than the Eglinton clearing sites. The density of CBC species in the Eglinton site was determined using the existing six 10m x 10m plots being monitored in the three

Conservation POS areas. The number of CBC species was counted in each of the six plots on 22 March 2017. The CBC species in the plots included trees, large shrubs and small shrubs.

3 Results

Species Richness

A total of 18 quadrats from the Mitchell Freeway extension flora survey were considered suitable for counting species richness for Trees, Large Shrubs (>1m) and Other. Only native perennial species were counted. The results are shown in Table 1.

The woodland vegetation types surveyed by GHD in Neerabup National Park contained on average almost 2 tree species per 100m². The tree species in the quadrats included Tuart, Jarrah, Sheoak, Marri, Banksia attenuata, Banksia menziesii and Eucalyptus tottiana. All these species have been planted in the YRP rehabilitation sites.

The number of large shrubs was reasonably consistent between the sites and averaged 2.3 species per 100m². Larger shrubs included *Acacia cyclops*, *A. pulchella*, *A. saligna*, *A. rostellifera*, *Anthocercis littorea*, *Hakea prostrata*, *H. ruscifolia*, *H. trifurcata*, *Jacksonia sternbergiana*, *Macrozamia fraseri*, *Pimelea argentea*, *Spyridium globulosum* and *Xanthorrhoea preissii*. Most of these species have been planted in the YRP rehabilitation sites.

Native species in the Other category was also reasonably consistent with an average of 12.8 species per 100m².

On this basis, the completion criteria for the YRP rehabilitation sites are shown in Table 11.

Table 1: Species Richness

Site	Vegetation Type and trees present	Condition	# Species (native only)		
			Trees	Large Shrubs >1m	Perennial Small Shrubs
Q01	Banksia woodland (BaBm)	Very Good	2	5	21
Q02	Banksia woodland (BaBmAf)	Exc - VG	3	2	16
Q03	Banksia woodland (BmEt)	Exc - VG	2	1	25
Q04	Banksia woodland (BaAf)	Very Good	2	1	12
Q05	Banksia woodland (EmAfBa)	VG - G	3	0	13
Q07	Tuart woodland (Eg)	Good	1	4	4
Q08	Tuart woodland (Eg)	Vg - G	1	3	11
Q14	Banksia woodland (BaBmAf)	Very Good	3	3	14
Q15	Banksia woodland (BaBm)	Very Good	2	1	14
Q17	Tuart woodland (Eg)	Very Good	1	2	12
Q18	Tuart woodland (EgCc)	Very Good	2	3	11
Q19	Banksia woodland (BaAf)	Very Good	2	1	9
Q21	Tuart woodland (EgAfEm)	Very Good	3	1	8
Q22	Banksia woodland (BaBmAf)	Very Good	3	3	5
Q23	Banksia woodland (Bm) and Heath	Exc - VG	1	3	12
Q25	Jarrah - Banksia woodland (Em)	Good	1	3	8

Site	Vegetation Type and trees present	Condition	# Species (native only)		
			Trees	Large Shrubs >1m	Perennial Small Shrubs
Q26	Jarrah - Banksia woodland (Em)	Very Good	1	1	18
Q27	Tuart woodland (Eg)	Good	1	4	18
Average			1.9	2.3	12.8

Overall Plant Density

The results of the tree and large shrub density count from four sites in and around YRP are shown in Table 2.

The vegetation in the four sites was chosen to be woodlands of varying species composition as follows:

Site 1 – Tuart/Jarrah/Sheoak Woodland over *Banksia attenuata*/*B.menziesii* Low Open Woodland over *Hibbertia hypericoides*/*Mesomelaena pseudostygia* Low Closed Heath

Site 2 – Marri/Tuart Woodland over scattered *Banksia attenuata*/*B. sessilis* over *Macrozamia fraseri*/*Xanthorrhoea preissii* Shrubland

Site 3 – Marri/Jarrah Woodland over *Banksia grandis* Low Open Woodland over *Jacksonia sternbergiana*/*Xanthorrhoea preissii*/*Hibbertia cuneiformis* Tall Shrubland

Site 4 – Jarrah/Marri/Sheoak/*Banksia attenuata*/*B. menziesii* Low Open Woodland

The density of trees ranged from 16-31 per 400m² which equates to 4-7.75 per 100m² (average 5.4/100m²)

The density of large shrubs ranged from 5-46 per 400m² which equates to 1.25-11.5 per 100m² (average 5.25/100m²).

On this basis, the completion criteria for the YRP rehabilitation sites are determined to be 540 per hectare for Trees and 525 per hectare for Large Shrubs (Table 11).

Table 2: Tree and Large Shrub Density Count

Species	Site				Average
	1	2	3	4	
Trees					
Tuart	1	3	1		
Jarrah	3	1	6	1	
Marri		12	4	7	
<i>Allocasuarina fraseriana</i>	8			6	
<i>Banksia attenuata</i>	5	3	1	6	
<i>Banksia grandis</i>			4		
<i>Banksia menziesii</i>	3			11	
Density per 400m2	20	19	16	31	
Density per 100m2	5	4.75	4	7.75	5.38

Species	Site				Average
	1	2	3	4	
Tall Shrubs					
<i>Xanthorrhoea preissii</i>	4	2	35	18	
<i>Macrozamia fraseri</i>	1	7	4	2	
<i>Acacia saligna</i>		2			
<i>Banksia sessilis</i>		2			
<i>Jacksonia sternbergiana</i>			5		
<i>Hibbertia cuneiformis</i>			2		
Density per 400m ²	5	13	46	20	
Density per 100m²	1.25	3.25	11.5	5	5.25

CBC Species Density

The six permanent 10m x 10m monitoring plots in the Eglinton Conservation POS areas are considered representative of the type of Carnaby's Black Cockatoo habitat that is approved to be cleared at Eglinton. Four of the plots are Banksia woodlands, one is a Redheart (*Eucalyptus decipiens*) woodland and another is a dense Parrot Bush (*Banksia sessilis*) closed heath.

A total of eight native species were recorded in the six plots that are known to be used by CBC for foraging. No breeding or roosting habitat species occur in the plots or on the Eglinton site in general. There are no Tuart, Jarrah or Marri trees in the area to be cleared.

Two of the foraging species are trees, *Banksia attenuata* and *B. menziesii*, while the other six species are large or small shrubs.

The data in Table 3 shows that the density of foraging habitat species for the five woodland plots ranges from 12-22 species per 100m² (average 17). Banksia woodlands had an average of 9.25 Banksia trees per 100m² (925/ha). The woodland plots had an average of 9.6 foraging shrub species 100m² (960/ha).

In contrast, the dense Parrot Bush heath contained an estimate of around 35,000 foraging plants per 100m², all Parrot Bush shrubs.

The CRMP requires the rehabilitation areas to contain Carnaby's Black Cockatoo foraging and breeding habitat species density to be no less than the Eglinton clearing sites. Therefore, the completion criteria for the YRP rehabilitation site is determined to be 1700 per hectare (Table 11) The dense Parrot Bush heath number is not considered a reasonable number to include in the calculation as the Parrot Bush heath at Eglinton occurs on shallow limestone soils, the preferred soil type for *Banksia sessilis*. The YRP rehabilitation site is deep sand with no limestone, therefore a dense Parrot Bush heath would not be able to grow on the site.

Table 3: Density of Carnaby's Black Cockatoo Species at Eglinton

Strata	AE1	AE2	AG1	AG2	AH1	AH2
	Banksia woodland	Banksia woodland	<i>Eucalyptus decipiens</i>	Banksia woodland	Parrot Bush Heath	Banksia woodland
Trees						
<i>Banksia attenuata</i>	11	2	0	3	0	6
<i>Banksia menziesii</i>	5	5	0	5	0	0
Total/100m2	16	7	0	8	0	6
per m2	0.16	0.07	0	0.08	0	0.06
per ha	1600	700	0	800	0	600
Shrubs						
<i>Banksia sessilis</i>			14		350	
<i>Banksia dallanneyi</i>						5
<i>Hakea trifurcata</i>		3	8			
<i>Hakea lissocarpa</i>						4
<i>Xanthorrhoea preissii</i>		3		4		
<i>Jacksonia furcellata</i>						7
Total/100m2	0	6	22	4	350	16
per m2	0	0.06	0.22			
per ha	0	600	2200	0	0	0
Total trees and shrubs						
Total/100m2	16	13	22	12	350	22
Total per m2	0.16	0.13	0.22	0.12	3.5	0.22
per ha	1600	1300	2200	1200	35000	2200

4 Conclusion

Based on the survey results the completion criteria for Table 11 of the CRMP are proposed as follows.

Table 11: Yellagonga Regional Park Revegetation Sites Completion Criteria

Native species category	Species Richness	Density*	CBC Species*
Trees	100% of 2.0/100m ² = 2.0/100m ²	540 stems per hectare	1700 stems per hectare
Large shrubs	80% of 2.3/100m ² = 1.8/100m ²	525 stems per hectare	
Other (shrubs, herbs, sedges etc)	60% of 12.8/100m ² = 7.7/100m ²		

ATTACHMENT 10
LOT 5001 MEMO

Name:	Julia Griffiths	Date:	16 January 2020
Company:	Peet 2018 No. 1 Pty Ltd	Job/Doc. No.:	56789/126,785
Email:	Julia.griffiths@peet.com.au	Inquiries:	Chris Lehman

Lot 5001 Access Road Clearing 2019

PEET 2018 No. 1 Pty Ltd (Peet) are preparing to develop Lot 5001 on Plan 400204 at 397 Pipidinn Road Eglinton (the site), for residential lots, public open space (POS) regional open space (ROS) and associated infrastructure (the project). Prior to PEET purchasing the site, the previous owner, Eglinton Estates, acquired environmental approvals and decisions Commonwealth legislation (*Environment Protection Biodiversity and Conservation (EPBC) Act 1999*) relevant to the site.

As per the EPBC Act approval for the site, Eglinton Estates are required to report on the clearing activities undertaken across the EPBC approval area for each reporting period. Peet provide this report to Eglinton Estates to detail the extent of vegetation clearing which occurred across the site during the 2018/2019 EPBC reporting period.

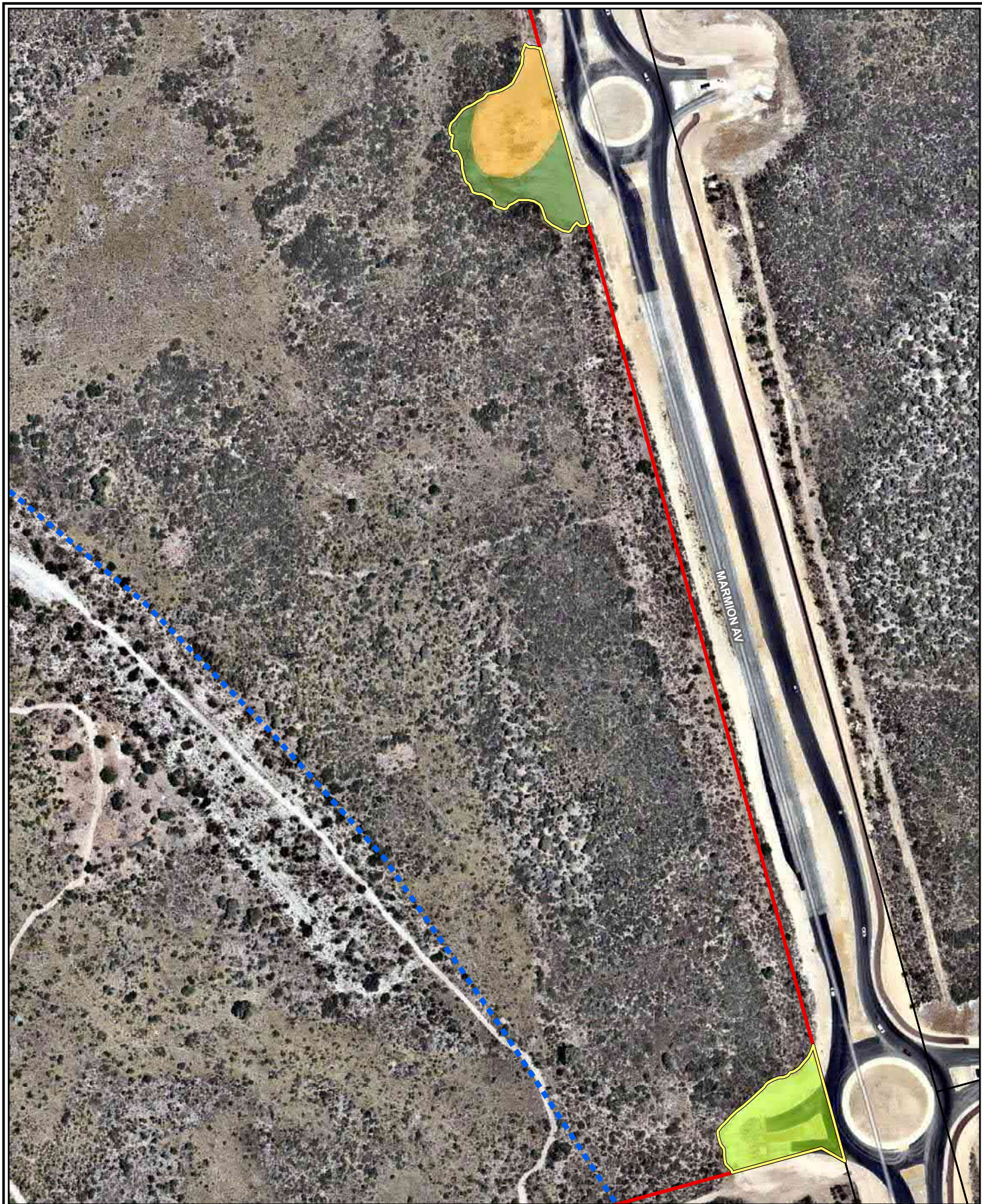
As part of the Marmion Avenue duplication upgrade works currently being undertaken by the City of Wanneroo, two roundabouts have been constructed adjacent to the eastern boundary of the site (Figure 1). The roundabouts are for connection to the future Carphin Drive (to the north) and Eglinton Drive (to the south), which are proposed as part of the Local Structure Plan and intersect with the site. To facilitate access from Marmion Avenue to the site from these locations, access spurs were cleared into Lot 5001 totalling 0.55 ha (Figure 1; Table 1). During future sub-division works scheduled to commence in 2020, the access spurs will be used in the creation of a formal access into the site (Eglinton Drive) and secondary egress out of the site onto Marmion Avenue (Carphin Drive).

All works were conducted via mechanical clearing by the City of Wanneroo contractor (RJV) in May 2019.

Table 1: Vegetation cleared on Lot 5001

Vegetation unit	Description	Area cleared (ha)	Percentage of the site (%)
BaBm	Banksia attenuata, Banksia menziesii Low Woodland	0.18	0.23
Ds	Dryandra sessilis (now Banksia sessilis) Open to Closed Heath	0.15	0.19
ArMs (kls)	Acacia rostellifera, Melaleuca systema Low Open Heath on the dune ridge	0.21	0.26
Total		0.55	0.68

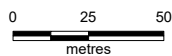
No Further clearing was conducted across the site during the 2018/2019 reporting period.



Legend:

- The Site
- Cadastral boundary
- Clearing boundary (0.545ha)
- Vegetation type
- ArMs(kls) (0.207ha)
- BaBm (0.184ha)
- Ds (0.154ha)
- EPBC 2010/5777 approval area
- Roads (MRWA)

Scale 1:2,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50



Job No: 56789

Client: Peet 2018 No. 1 Pty Ltd

Version: A

Date: 13-Jan-2020

Drawn By: hsullivan

Checked By: CT

**Lot 5001 Pipidinny Rd
Eglington, WA**

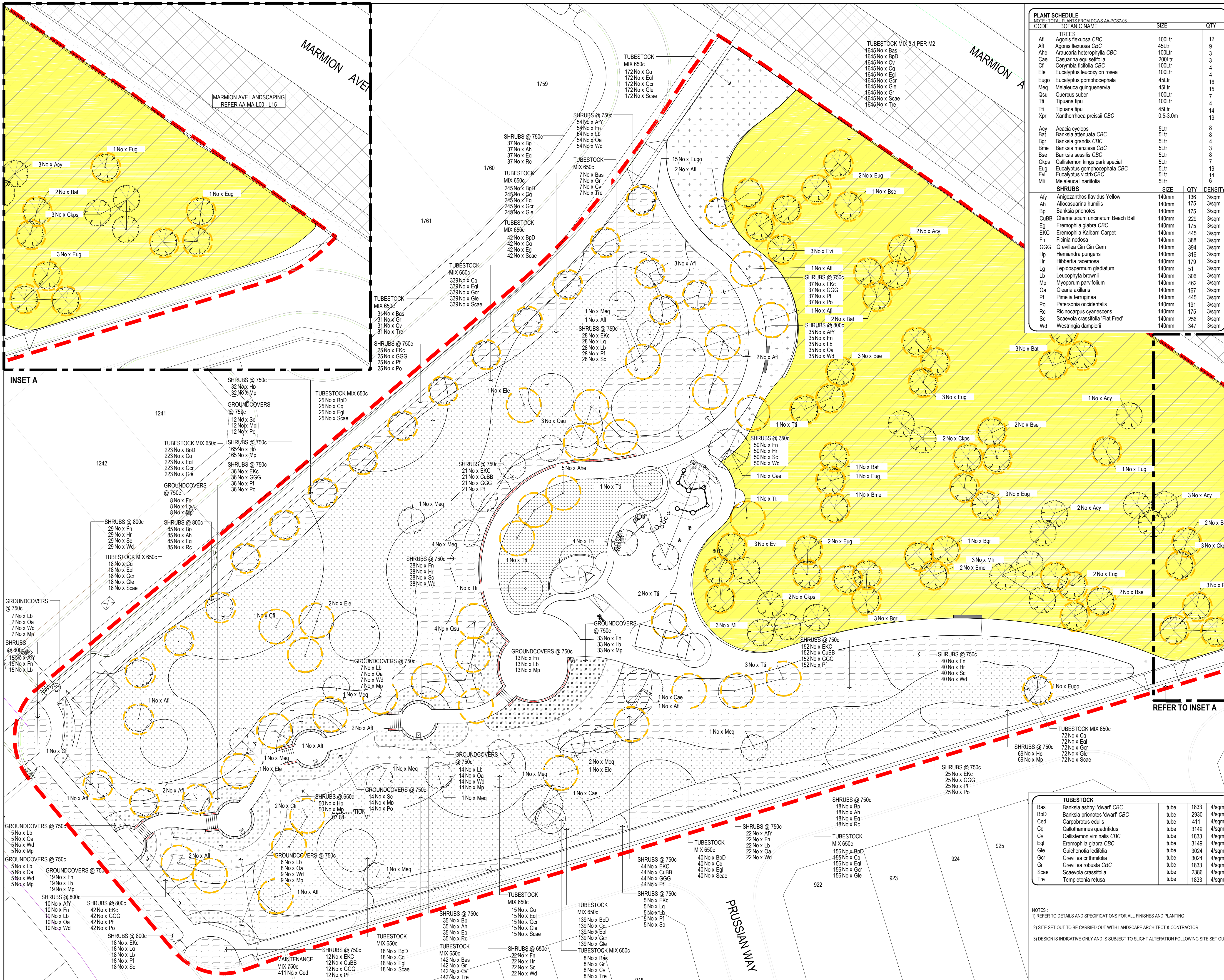
ACCESS ROAD CLEARING AREA

FIGURE 1



ATTACHMENT 11

**POS7 LANDSCAPE DESIGN AND
TUBESTOCK PLANTING PHOTOS**



PLANT SCHEDULE			
NOTE: TOTAL PLANTS FROM DGWS AA-POST-03			
CODE	BOTANIC NAME	SIZE	QTY
TREES			
Afl	Agonis flexuosa CBC	100Ltr	12
Afl	Agonis flexuosa CBC	45Ltr	9
Ahe	Araucaria heterophylla CBC	100Ltr	3
Cae	Casuarina equisetifolia	200Ltr	4
Cfi	Corymbia ficifolia CBC	100Ltr	3
Ele	Eucalyptus leucocylon rosea	100Ltr	4
Eugo	Eucalyptus gomphocephala	45Ltr	16
Meq	Melaleuca quinquenervia	45Ltr	15
Qsu	Quercus suber	100Ltr	7
Tti	Tipuana tipu	100Ltr	4
Tti	Tipuana tipu	45Ltr	14
Xpr	Xanthorrhoea preissii CBC	0.5-3.0m	19
SHRUBS			
Acy	Acacia cyclops	5Ltr	8
Bat	Banksia attenuata CBC	5Ltr	8
Bgr	Banksia grandis CBC	5Ltr	4
Bme	Banksia menziesii CBC	5Ltr	3
Bse	Banksia sessilis CBC	5Ltr	8
Ckps	Callistemon kings park special	5Ltr	7
Eug	Eucalyptus gomphocephala CBC	5Ltr	19
Evi	Eucalyptus viminalis CBC	5Ltr	14
Mli	Melaleuca linariifolia	5Ltr	6
CODE	BOTANIC NAME	SIZE	QTY
Aly	Anigozanthos flavidus Yellow	140mm	136
Ah	Allocasuarina humilis	140mm	175
Bp	Banksia prionotes	140mm	175
CuBB	Chamelucium uncinatum Beach Ball	140mm	229
Eg	Eremophila glabra CBC	140mm	175
EKC	Eremophila Kalbarri Carpet	140mm	445
Fn	Ficinia nodosa	140mm	388
GGG	Grevillea Gin Gin Gem	140mm	394
Hp	Hemimandra pungens	140mm	316
Hr	Hibbertia racemosa	140mm	179
Lg	Lepidospermum gladiatum	140mm	51
Lb	Leucophylla brownii	140mm	306
Mp	Myoporum parvifolium	140mm	462
Oa	Olearia axillaris	140mm	167
Pf	Pimelea ferruginea	140mm	445
Po	Patersonia occidentalis	140mm	191
Rc	Rhinocarpus cyanescens	140mm	175
Sc	Scaevola crassifolia 'Flat Fred'	140mm	256
Wd	Westringia dampieri	140mm	347

CBC PLANTING PLAN LEGEND

EXTENT OF WORKS

75mm DEPTH IMPORTED MULCH ONLY

300mm DEPTH IMPORTED MULCH ONLY

TUBESTOCK PLANTING

SHRUB PLANTING MIX

GROUND COVER SHRUB PLANTING MIX

FEATURE BOULDERS

MATURE TRANSPLANT

200 LITRE TREE

100 LITRE TREE

45 LITRE TREE

5 LITRE TREE

4863M2 (35% OF SITE)

33% IS CBC FORAGING SPECIES

CBC FORAGING TREE SPECIES

OVERALL CBC SITE PLANTING		
	CBC	NON CBC
TREES	103 (55%)	84 (45%)
SHRUBS	175 (3.6%)	4686 (96.4%)
TUBESTOCK	6815 (33%)	13827 (67%)

STANDARD NOTES

1. **SET OUT & DIMENSIONS.** THE CONTRACTOR SHALL SET OUT ALL PATHS, WALLS, HARD SURFACES AND ELEMENTS EITHER ON OR OFF SITE PRIOR TO CONSTRUCTION AND SHALL OBTAIN THE SUPERINTENDENTS SET OUT APPROVAL PRIOR TO WORKS COMMENCING. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE. CHECK ALL DRAWING SCALES IN CONJUNCTION WITH DRAWING SIZE.

2. **SERVICES & SITE ASSETS.** THE CONTRACTOR SHALL INVESTIGATE THE NATURE AND LOCATION OF ALL EXISTING SERVICES AND RETAINED ASSETS AFFECTED BY THEIR WORKS. FAILURE TO TAKE DUE CARE SHALL NOT LIMIT THE CONTRACTORS LIABILITIES.

3. **REFERENCE.** THE CONTRACTOR SHALL REFER TO ALL CONTRACT DOCUMENTS, THE SPECIFICATION AND DRAWINGS PRIOR TO AND DURING THE WORKS.

4. **DISCREPANCIES.** NOTIFY SUPERINTENDENT OF ANY SUSPECTED OR KNOWN DISCREPANCIES OR ERRORS PRIOR TO THE ORDERING OF ANY MATERIALS AND/OR CONSTRUCTION OF AFFECTED WORKS.

5. **RELEVANT STANDARDS.** THE CONTRACTOR SHALL UNDERTAKE ALL PRIOR WORKS IN ACCORDANCE WITH CURRENT INDUSTRY BEST PRACTICE AND ALL RELEVANT AUSTRALIAN STANDARDS.

6. **SERVICE LOCATOR.** THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG PROCESS PRIOR TO COMMENCING WORKS ON SITE. THE CONTRACTOR SHALL ENGAGE A SERVICE LOCATOR TO MAP THE SPECIFIC LOCATIONS AND DEPTH OF ALL SERVICES AND ADVISE ALL RELEVANT STAFF AND SUBCONTRACTORS IN WRITING PRIOR TO COMMENCING WORKS ON SITE.

B	25.11.16	HF	ISSUED FOR INFORMATION
A	21.04.16	HF	ISSUED FOR CLIENT APPROVAL
REV	DATE	BY	ISSUE OR AMENDMENT

THIS IS AN UNCONTROLLED DOCUMENT ISSUED FOR INFORMATION ONLY UNLESS SIGNED BELOW AT EACH RELEVANT STAGE.

INTERNAL DESIGN REVIEW	DATE
THIS DESIGN IS NOT AUTHORISED WITHOUT BEING INTERNALLY REVIEWED AND SIGNED HERE	
INTERNAL PRETENDER REVIEW	DATE
THIS DRAWING IS NOT AUTHORISED FOR TENDER WITHOUT BEING INTERNALLY REVIEWED AND SIGNED HERE	
AUTHORISED FOR CONSTRUCTION	DATE
THIS DRAWING IS NOT AUTHORISED FOR CONSTRUCTION UNLESS IT IS MARKED REV 1 OR HIGHER AND IS SIGNED HERE	

EMERGE DIRECTOR

emerge ASSOCIATES

Integrated Science & Design

PERTH (08) 9380 4988 • MARGARET RIVER (08) 9758 8159

PROJECT
AMBERTON EGLINTON
STAGE OR PHASE
POS 7

PRELIMINARY
NOT FOR CONSTRUCTION
INFORMATION ONLY

DRAWING TITLE
Carnaby Foraging Species Plan

CLIENT
STOCKLAND

DESIGNED BY
ZF

PRELIM DESIGN REVIEWED BY
SC

DRAWN BY
ZF

PRELIM DWG REVIEWED BY
SC

DATE INITIALLY DRAWN
14.01.2015

SCALE
1:250

AT A1

DRAWING NUMBER
AA-POST7-CBC

REV
A

REF

TUBESTOCK			
Bas	Banksia ashbyi 'dwarf' CBC	tube	1833
BpD	Banksia prionotes 'dwarf' CBC	tube	2930
Ced	Carporobrotus edulis	tube	411
Cq	Calothamnus quadrifidus	tube	3149
Cv	Callistemon viminalis CBC	tube	1833
Egl	Eremophila glabra CBC	tube	3149
Gle	Guichenotia ledifolia	tube	3024
Gcr	Grevillea crithmifolia	tube	3024
Gr	Grevillea robusta CBC	tube	1833
Scae	Scaevola crassifolia	tube	2386
Tre	Templetonia retusa	tube	1833

NOTES:

1) REFER TO DETAILS AND SPECIFICATIONS FOR ALL FINISHES AND PLANTING

2) SITE SET OUT TO BE CARRIED OUT WITH LANDSCAPE ARCHITECT & CONTRACTOR.

3) DESIGN IS INDICATIVE ONLY AND IS SUBJECT TO SLIGHT ALTERATION FOLLOWING SITE SET OUT.

ATTACHMENT 12
LOCAL STRUCTURE PLAN
AMENDMENT 1
WAPC APPROVAL



Western
Australian
Planning
Commission



Your ref: 3718-01
Our ref: SPN/0210M-3
Enquiries: Andrew Cook (Andrew.Cook@planning.wa.gov.au)

City of Wanneroo
Locked Bag No 1
Wanneroo 6946 WA

Transmission via electronic mail to: enquiries@wanneroo.wa.gov.au; franka@creativedp.com.au

Dear Sir/Madam

**APPROVAL - AMENDMENT NO. 1 TO THE EGLINTON LOCAL STRUCTURE
PLAN SPN/0210M-3**

Pursuant to Schedule 2, Clause 22(1)(a) of the *Planning and Development (Local Planning Schemes) Regulations 2015* (Regulations), the Western Australian Planning Commission (WAPC), on 16 November 2017, granted approval to Amendment No. 1 to the Eglinton Local Structure Plan. A copy of the approved plan will be provided on CD via mail.

Yours sincerely,

Kerrine Blenkinsop
Secretary
Western Australian Planning Commission

17/11/2017



wa.gov.au

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ABN 35 482 341 493

ATTACHMENT 13
CRMP – REHABILITATION
COMPLETION CRITERIA MEMO

Eglinton CRMP – Yellagonga Regional Park Rehabilitation - Completion Criteria

1 Background

The Clearing and Revegetation Management Plan (CRMP) prepared as part of the EPBC Act approval of the Eglinton Estates development contained the requirement to rehabilitate 12.7ha of new Carnaby's Black Cockatoo (CBC) habitat in Yellagonga Regional Park (YRP).

Revegetation of two of the four areas identified for rehabilitation in YRP commenced in 2014. The plant species used for revegetation focussed on CBC foraging species that naturally occur in YRP as well as at Eglinton. Non-CBC habitat plant species were also included in the species list in order to restore a sustainable natural ecosystem appropriate to the YRP landscape, ie. both an overstorey and understorey of native plants.

Monitoring of the progress of the seed germination and tube stock planting has occurred twice year from 2015 and is ongoing.

According to the CRMP, the success of the rehabilitation works will be assessed using a number of factors including:

- Native plant density
- Species richness
- Weed competition
- Ecological processes (i.e. flowering and reproduction, fauna utilisation, etc.).

Table 11 of the CRMP, which was to include the quantitative numbers used to determine plant density and species richness was left in draft form pending surveys in nearby remnant bushland as well as in Eglinton to determine realistic values rather than determine the criteria on an arbitrary basis.

This memo provides the results of work undertaken by PGV Environmental to determine the completion criteria for Table 11.

2 Methodology

Table 11 proposes three different completion criteria to be determined as follows:

- The species richness of trees, large shrubs and other lifeforms (small shrubs, herbs, sedges etc) in nearby remnant bushland reference sites (most likely Neerabup National Park) but not necessarily;
- The density of trees, large shrubs and other lifeforms in nearby remnant bushland reference sites; and
- The density of Carnaby's Black Cockatoo species in each lifeform in areas of CBC habitat cleared at the Eglinton site.

Species Richness

The species richness of reference site in Neerabup National Park could have been determined either by establishing and scoring new sites or by using published information. It was determined to be far more cost effective to use existing published high quality data. That was found to be available in the Level 2 flora survey of the Mitchell Freeway extension from Burns Beach Road to Romeo Road undertaken by GHD for Main Roads Western Australia in 2013.

The Mitchell Freeway extension flora survey included sampling species from twenty-nine 10m x 10m quadrats in September to October 2013. The range of vegetation types included Banksia woodland, Tuart woodland, Jarrah-Banksia woodland, Banksia woodland and heath and heath.

The YRP rehabilitation sites are aiming to achieve a woodland vegetation structure with a variety of tree species including Tuart, Jarrah, Marri, Banksia, Sheoak and Eucalyptus tottiana. Eighteen of the GHD quadrats were sampled from vegetation types that match the structure being aimed for on the YRP rehabilitation sites. Therefore, the species richness of all perennial native species in the lifeforms of Tree, Large Shrubs (greater than 1m) and Other were counted.

Overall Plant Density

The quadrat data from the Mitchell Freeway extension flora survey did not contain information on the density of each species. Therefore, the density of Trees and Large Shrubs (>1m) was measured from newly established plots in and around Yellagonga Regional Park. The condition of the plant density reference plots was not of sufficient quality to count species richness and be used for that purpose. However, while the understorey was mostly in poor condition, the tree and large shrubs layer appeared to be in good condition and suitable to be used as reference plots for plant density completion criteria.

Four sites were chosen for the density count. Three were in the Yellagonga Regional Park on the western and eastern side of Lake Joondalup. The fourth was in a local bushland area just to the north of the Wanneroo Council Offices on Dundobar Road. At each location a 40m x 10m plot was measured out and all trees and large shrubs >1m high were counted. The survey was done on 23 August 2017.

An attempt was made to count the number of Other lifeforms (small shrubs, sedges, herbs etc) in an area with very good condition understorey. It was found to be extremely difficult to count individual plants as an understorey with 70-80% cover contains an intermingling mix of low shrubs, sedges, herbs, climbing plants etc.

As the understorey is not important for Carnaby's Black Cockatoo, and that any attempt to count plants in their natural environment could lead to a very uncertain figure, it was decided that the density of Other species was not required for the completion criteria.

CBC Species Density

The CRMP requires the rehabilitation areas to contain Carnaby's Black Cockatoo foraging and breeding habitat species density to be no less than the Eglinton clearing sites. The density of CBC species in the Eglinton site was determined using the existing six 10m x 10m plots being monitored in the three

Conservation POS areas. The number of CBC species was counted in each of the six plots on 22 March 2017. The CBC species in the plots included trees, large shrubs and small shrubs.

3 Results

Species Richness

A total of 18 quadrats from the Mitchell Freeway extension flora survey were considered suitable for counting species richness for Trees, Large Shrubs (>1m) and Other. Only native perennial species were counted. The results are shown in Table 1.

The woodland vegetation types surveyed by GHD in Neerabup National Park contained on average almost 2 tree species per 100m². The tree species in the quadrats included Tuart, Jarrah, Sheoak, Marri, Banksia attenuata, Banksia menziesii and Eucalyptus tottiana. All these species have been planted in the YRP rehabilitation sites.

The number of large shrubs was reasonably consistent between the sites and averaged 2.3 species per 100m². Larger shrubs included *Acacia cyclops*, *A. pulchella*, *A. saligna*, *A. rostellifera*, *Anthocercis littorea*, *Hakea prostrata*, *H. ruscifolia*, *H. trifurcata*, *Jacksonia sternbergiana*, *Macrozamia fraseri*, *Pimelea argentea*, *Spyridium globulosum* and *Xanthorrhoea preissii*. Most of these species have been planted in the YRP rehabilitation sites.

Native species in the Other category was also reasonably consistent with an average of 12.8 species per 100m².

On this basis, the completion criteria for the YRP rehabilitation sites are shown in Table 11.

Table 1: Species Richness

Site	Vegetation Type and trees present	Condition	# Species (native only)		
			Trees	Large Shrubs >1m	Perennial Small Shrubs
Q01	Banksia woodland (BaBm)	Very Good	2	5	21
Q02	Banksia woodland (BaBmAf)	Exc - VG	3	2	16
Q03	Banksia woodland (BmEt)	Exc - VG	2	1	25
Q04	Banksia woodland (BaAf)	Very Good	2	1	12
Q05	Banksia woodland (EmAfBa)	VG - G	3	0	13
Q07	Tuart woodland (Eg)	Good	1	4	4
Q08	Tuart woodland (Eg)	Vg - G	1	3	11
Q14	Banksia woodland (BaBmAf)	Very Good	3	3	14
Q15	Banksia woodland (BaBm)	Very Good	2	1	14
Q17	Tuart woodland (Eg)	Very Good	1	2	12
Q18	Tuart woodland (EgCc)	Very Good	2	3	11
Q19	Banksia woodland (BaAf)	Very Good	2	1	9
Q21	Tuart woodland (EgAfEm)	Very Good	3	1	8
Q22	Banksia woodland (BaBmAf)	Very Good	3	3	5
Q23	Banksia woodland (Bm) and Heath	Exc - VG	1	3	12
Q25	Jarrah - Banksia woodland (Em)	Good	1	3	8

Site	Vegetation Type and trees present	Condition	# Species (native only)		
			Trees	Large Shrubs >1m	Perennial Small Shrubs
Q26	Jarrah - Banksia woodland (Em)	Very Good	1	1	18
Q27	Tuart woodland (Eg)	Good	1	4	18
Average			1.9	2.3	12.8

Overall Plant Density

The results of the tree and large shrub density count from four sites in and around YRP are shown in Table 2.

The vegetation in the four sites was chosen to be woodlands of varying species composition as follows:

Site 1 – Tuart/Jarrah/Sheoak Woodland over *Banksia attenuata*/*B.menziesii* Low Open Woodland over *Hibbertia hypericoides*/*Mesomelaena pseudostygia* Low Closed Heath

Site 2 – Marri/Tuart Woodland over scattered *Banksia attenuata*/*B. sessilis* over *Macrozamia fraseri*/*Xanthorrhoea preissii* Shrubland

Site 3 – Marri/Jarrah Woodland over *Banksia grandis* Low Open Woodland over *Jacksonia sternbergiana*/*Xanthorrhoea preissii*/*Hibbertia cuneiformis* Tall Shrubland

Site 4 – Jarrah/Marri/Sheoak/*Banksia attenuata*/*B. menziesii* Low Open Woodland

The density of trees ranged from 16-31 per 400m² which equates to 4-7.75 per 100m² (average 5.4/100m²)

The density of large shrubs ranged from 5-46 per 400m² which equates to 1.25-11.5 per 100m² (average 5.25/100m²).

On this basis, the completion criteria for the YRP rehabilitation sites are determined to be 540 per hectare for Trees and 525 per hectare for Large Shrubs (Table 11).

Table 2: Tree and Large Shrub Density Count

Species	Site				Average
	1	2	3	4	
Trees					
Tuart	1	3	1		
Jarrah	3	1	6	1	
Marri		12	4	7	
<i>Allocasuarina fraseriana</i>	8			6	
<i>Banksia attenuata</i>	5	3	1	6	
<i>Banksia grandis</i>			4		
<i>Banksia menziesii</i>	3			11	
Density per 400m ²	20	19	16	31	
Density per 100m²	5	4.75	4	7.75	5.38

Species	Site				Average
	1	2	3	4	
Tall Shrubs					
<i>Xanthorrhoea preissii</i>	4	2	35	18	
<i>Macrozamia fraseri</i>	1	7	4	2	
<i>Acacia saligna</i>		2			
<i>Banksia sessilis</i>		2			
<i>Jacksonia sternbergiana</i>			5		
<i>Hibbertia cuneiformis</i>			2		
Density per 400m ²	5	13	46	20	
Density per 100m²	1.25	3.25	11.5	5	5.25

CBC Species Density

The six permanent 10m x 10m monitoring plots in the Eglinton Conservation POS areas are considered representative of the type of Carnaby's Black Cockatoo habitat that is approved to be cleared at Eglinton. Four of the plots are Banksia woodlands, one is a Redheart (*Eucalyptus decipiens*) woodland and another is a dense Parrot Bush (*Banksia sessilis*) closed heath.

A total of eight native species were recorded in the six plots that are known to be used by CBC for foraging. No breeding or roosting habitat species occur in the plots or on the Eglinton site in general. There are no Tuart, Jarrah or Marri trees in the area to be cleared.

Two of the foraging species are trees, *Banksia attenuata* and *B. menziesii*, while the other six species are large or small shrubs.

The data in Table 3 shows that the density of foraging habitat species for the five woodland plots ranges from 12-22 species per 100m² (average 17). Banksia woodlands had an average of 9.25 Banksia trees per 100m² (925/ha). The woodland plots had an average of 9.6 foraging shrub species 100m² (960/ha).

In contrast, the dense Parrot Bush heath contained an estimate of around 35,000 foraging plants per 100m², all Parrot Bush shrubs.

The CRMP requires the rehabilitation areas to contain Carnaby's Black Cockatoo foraging and breeding habitat species density to be no less than the Eglinton clearing sites. Therefore, the completion criteria for the YRP rehabilitation site is determined to be 1700 per hectare (Table 11) The dense Parrot Bush heath number is not considered a reasonable number to include in the calculation as the Parrot Bush heath at Eglinton occurs on shallow limestone soils, the preferred soil type for *Banksia sessilis*. The YRP rehabilitation site is deep sand with no limestone, therefore a dense Parrot Bush heath would not be able to grow on the site.

Table 3: Density of Carnaby's Black Cockatoo Species at Eglinton

Strata	AE1	AE2	AG1	AG2	AH1	AH2
	Banksia woodland	Banksia woodland	<i>Eucalyptus decipiens</i>	Banksia woodland	Parrot Bush Heath	Banksia woodland
Trees						
<i>Banksia attenuata</i>	11	2	0	3	0	6
<i>Banksia menziesii</i>	5	5	0	5	0	0
Total/100m2	16	7	0	8	0	6
per m2	0.16	0.07	0	0.08	0	0.06
per ha	1600	700	0	800	0	600
Shrubs						
<i>Banksia sessilis</i>			14		350	
<i>Banksia dallanneyi</i>						5
<i>Hakea trifurcata</i>		3	8			
<i>Hakea lissocarpha</i>						4
<i>Xanthorrhoea preissii</i>		3		4		
<i>Jacksonia furcellata</i>						7
Total/100m2	0	6	22	4	350	16
per m2	0	0.06	0.22			
per ha	0	600	2200	0	0	0
Total trees and shrubs						
Total/100m2	16	13	22	12	350	22
Total per m2	0.16	0.13	0.22	0.12	3.5	0.22
per ha	1600	1300	2200	1200	35000	2200

4 Conclusion

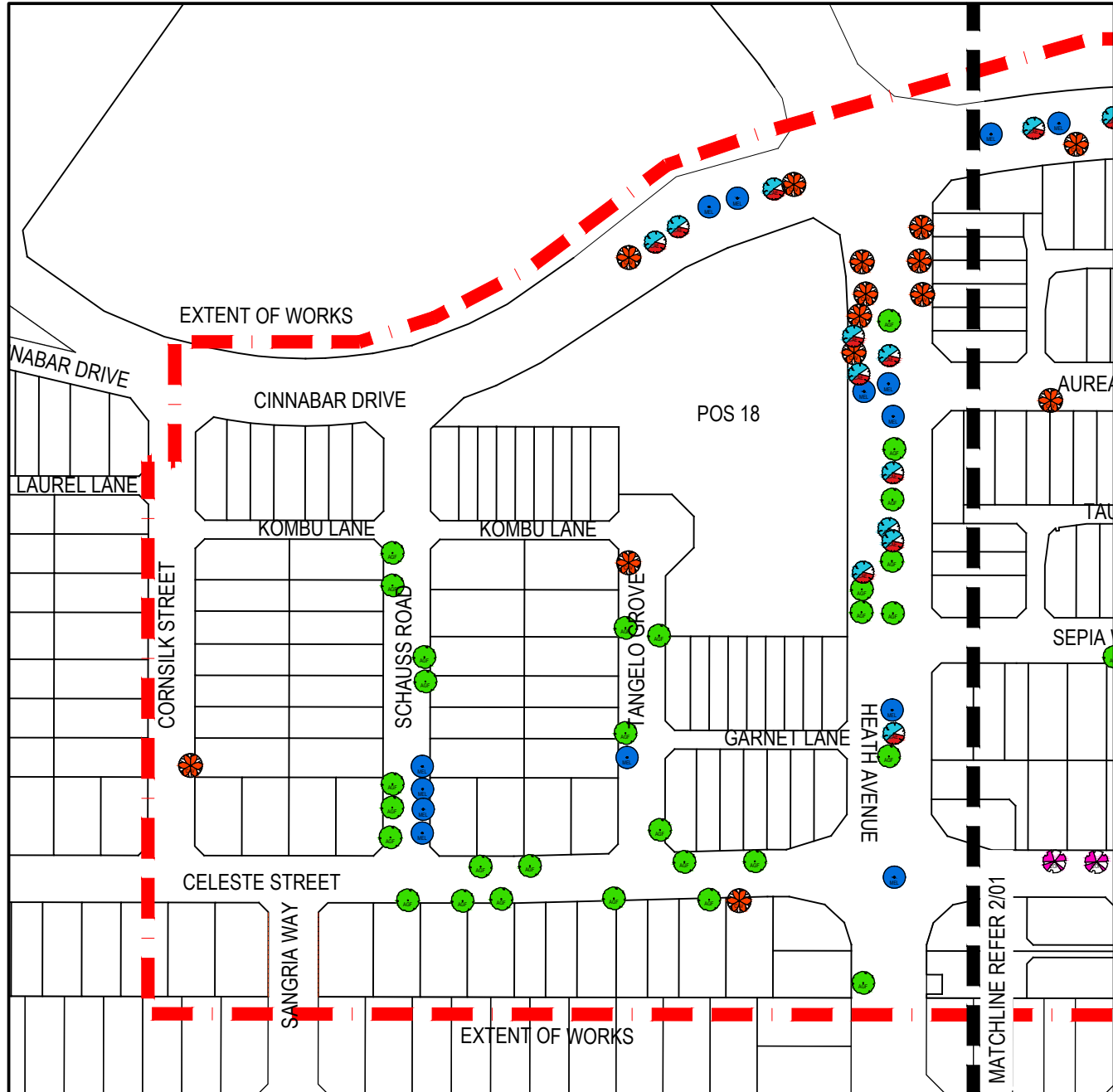
Based on the survey results the completion criteria for Table 11 of the CRMP are proposed as follows.

Table 11: Yellagonga Regional Park Revegetation Sites Completion Criteria

Native species category	Species Richness	Density*	CBC Species*
Trees	100% of 2.0/100m ² = 2.0/100m ²	540 stems per hectare	1700 stems per hectare
Large shrubs	80% of 2.3/100m ² = 1.8/100m ²	525 stems per hectare	
Other (shrubs, herbs, sedges etc)	60% of 12.8/100m ² = 7.7/100m ²		

ATTACHMENT 14

**AMBERTON STREET TREE
MASTERPLAN AND PHOTOS**

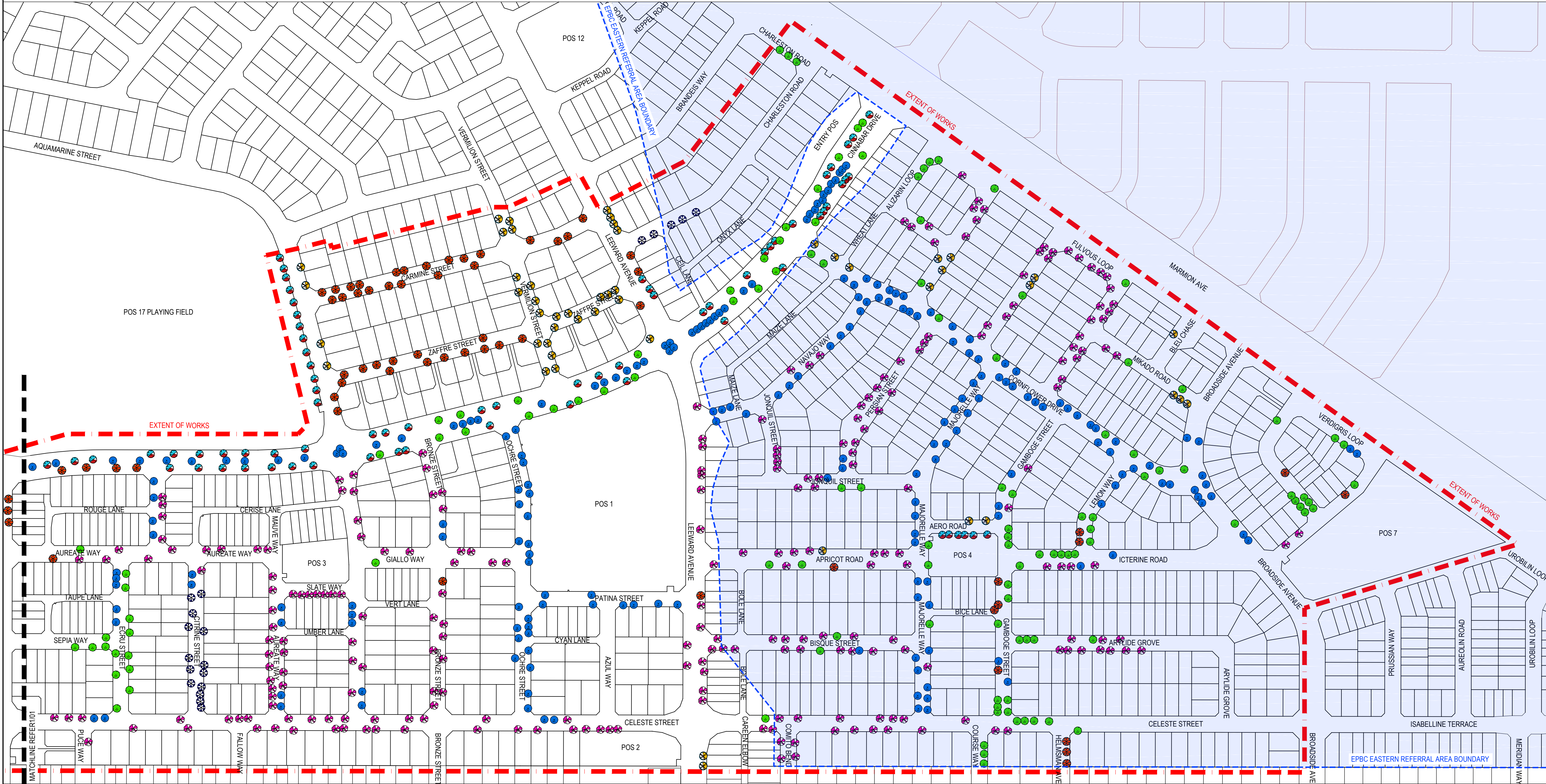


TREE SPECIES OVERALL PROJECT	#	CBC	% CBC
AGONIS FLEXUOSA	150	YES	17.5%
CALLISTEMON VIMINALIS	72	YES	8.4%
MELALEUCA LANCEOLATA	228	NO	
CORYMBIA FICIFOLIA	252	YES	29.5%
EUCALYPTUS LEHMANNI	51	NO	
EUCALYPTUS LEUCOXYLON 'ROSEA'	19	YES	2.2%
CASUARINA EUISETIFOLIA	84	NO	
	855		57.6%

TREE SPECIES WITHIN EPBC EASTERN REFERRAL AREA	#	CBC	% CBC
AGONIS FLEXUOSA	79	YES	22.4%
CALLISTEMON VIMINALIS	12	YES	3.4%
MELALEUCA LANCEOLATA	106	NO	
CORYMBIA FICIFOLIA	130	YES	36.4%
EUCALYPTUS LEHMANNI	16	NO	
EUCALYPTUS LEUCOXYLON 'ROSEA'	3	YES	8%
CASUARINA EUISETIFOLIA	6	NO	
	352		63%

1
01 PLAN

SCALE 1:2000



2
01 PLAN

SCALE 1:2000

STANDARD NOTES

- 1. SET OUT & DIMENSIONS.** THE CONTRACTOR SHALL SET OUT ALL PATHS, WALLS, HARD SURFACES AND ELEMENTS EITHER ON OR OFF SITE PRIOR TO CONSTRUCTION AND SHALL OBTAIN THE SUPERINTENDENTS SET OUT APPROVAL PRIOR TO WORKS COMMENCING. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE. CHECK ALL DRAWING SCALES IN CONJUNCTION WITH DRAWING SIZE.
- 2. SERVICES & SITE ASSETS.** THE CONTRACTOR SHALL INVESTIGATE THE NATURE AND LOCATION OF ALL EXISTING SERVICES AND RETAINED SITE ASSETS AFFECTED BY THEIR WORKS. FAILURE TO TAKE DUE CARE SHALL NOT LIMIT THE CONTRACTORS LIABILITIES.
- 3. REFERENCE.** THE CONTRACTOR SHALL REFER TO ALL CONTRACT DOCUMENTS, THE SPECIFICATION AND DRAWINGS PRIOR TO AND DURING THE WORKS.
- 4. DISCREPANCIES.** NOTIFY SUPERINTENDENT OF ANY SUSPECTED OR KNOWN DISCREPANCIES OR ERRORS PRIOR TO THE BEGINNING OF AFFECTED MATERIALS AND OR CONSTRUCTION OF AFFECTED WORKS.
- 5. RELEVANT STANDARDS.** THE CONTRACTOR SHALL UNDERTAKE ALL PRICING AND WORKS IN ACCORDANCE WITH CURRENT INDUSTRY BEST PRACTICE AND ALL RELEVANT AUSTRALIAN STANDARDS.
- 6. SERVICE LOCATOR.** THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG PROCESS PRIOR TO COMMENCING WORKS ON SITE. THE CONTRACTOR SHALL ENGAGE A SERVICE LOCATOR TO MAP THE SPECIFIC LOCATIONS AND DEPTH OF ALL SERVICES AND ADVISE ALL RELEVANT STAFF AND SUBCONTRACTORS IN WRITING PRIOR TO COMMENCING WORKS ON SITE.

REV	DATE	BY	ISSUE OR AMENDMENT
A	14.07.17	HF	ISSUE FOR INFORMATION

THIS IS AN UNCONTROLLED DOCUMENT ISSUED FOR INFORMATION ONLY UNLESS SIGNED BELOW AT EACH RELEVANT STAGE.

INTERNAL DESIGN REVIEW	DATE
THIS DESIGN IS NOT AUTHORISED WITHOUT BEING INTERNALLY REVIEWED AND IS SIGNED HERE	
INTERNAL PRETENDER REVIEW	DATE
THIS DRAWING IS NOT AUTHORISED FOR TENDER WITHOUT BEING INTERNALLY REVIEWED AND IS SIGNED HERE	
AUTHORISED FOR CONSTRUCTION	DATE
THIS DRAWING IS NOT AUTHORISED FOR CONSTRUCTION UNLESS IT IS MARKED REV 1 OR HIGHER AND IS SIGNED HERE	

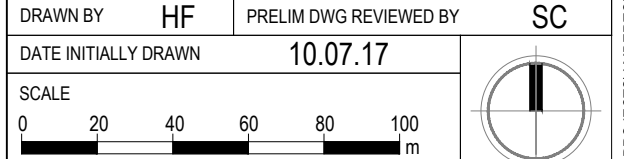


PROJECT
AMBERTON EGLINTON WA
STAGE OR PHASE

OVERALL DEVELOPMENT
DRAWING TITLE
STREET TREE AUDIT

CLIENT
Stockland

DESIGNED BY HF PRELIM DESIGN REVIEWED BY ZF
DRAWN BY HF PRELIM DWG REVIEWED BY SC
DATE INITIALLY DRAWN 10.07.17



DRAWING NUMBER
AA-STA-01
REV
A