

Annual Compliance Report

The Trustee for Hamersley Sub Trust

Reporting Period

17 April 2024 – 16 April 2025

Report Completion Date

25 September 2026

Revision Record				
Date	Version	Description	Author	Approved By
23/09/26	1	Annual Compliance Report for reporting period 17 April 2024 – 16 April 2025	N Dalziell	J Drago

Contents

Contents.....	3
1. Introduction	4
1.1. Purpose of this Document.....	4
1.2. Compliance with 'Annual Compliance Report Guidelines (2014)'	4
1.3. Declaration of Accuracy	5
2. Description of Activities	6
2.1. Proponent Details.....	6
2.2. Approved Action	6
2.3. Location of Project.....	6
3. Activities Undertaken this Reporting Period	7
4. Project Compliance.....	8
4.1. Implementation of Vegetation and Fauna Management Plan (VFMP)	8
4.2. Implementation of Revegetation Management Plan (RMP)	15
4.3. Implementation of Offset Strategy.....	21
4.4. Compliance with EPBC Approval Conditions	22
5. Corrections of Non-Compliance	36
5.1. Non-Compliances from Previous Reporting Periods	36
5.2. Non-Compliances from this Reporting Period.....	36
6. New Environmental Risks	37
7. Other Information.....	38
8. References.....	39
9. Appendixes	40
9.1. Appendix 1: Offset Site Soil Testing Report	40
9.2. Appendix 2: 6 Lodge Drive Building Permit.....	48
9.3. Appendix 3: Revegetation Services Agreement.....	52
9.4. Appendix 4: Revegetation Plant Species List for 2025 Planting Season	260
9.5. Appendix 5: DBCA Lawful Authority for Offset Site Access.....	262
9.6. Appendix 6: Notice of Non-Compliance- Reporting	267
9.7. Appendix 7: Clearing Aerial Images Showing Clearing Activities Extents.....	271
9.8. Appendix 8: Letter of Approval- Revegetation Management Plan	275
9.9. Appendix 9: DBCA Letter of Confirmation	277
9.10. Appendix 10: Notice of Non-Compliance- Commencement of Action Prior to RMP Approval.....	279
9.11. Appendix 11: Notice of Non-Compliance- Notice of Commencement of Action.....	284

Tables

Table 1: Guidelines Set Out in 'Annual Compliance Report Guidelines (2014)'	4
Table 2: Proponent Details	6
Table 3: Activities Undertaken this Reporting Period.....	7
Table 4: Management Actions Specified in Approved Vegetation and Fauna Management Plan.....	9
Table 5: Management Actions Specified in Approved Revegetation Management Plan.....	16
Table 6: Condition Compliance	23

1. Introduction

1.1. Purpose of this Document

The purpose of this document is to comply with Condition 25 of the Conditions of Approval associated with the approval of the Project (reference number 2021/9069) under the Environment Protection and Biodiversity Conservation Act, 1999 (Cth, EPBC Act), which requires development of an annual Compliance Report (the Report). The Report aims to help in ensuring that the Project is implemented as approved. The Report, following submission, also helps the Australian Government to understand how well approval conditions are being understood and applied, and contribute to improving the effectiveness of their operations.

This Report covers the 12-month period from 17 April 2024 to 16 April 2025.

This report has been produced retrospectively for the reporting period in order to correct a non-compliance identified during the 2025 Compliance Audit undertaken by DCCEEW. The audit identified that Annual Reports for the reporting periods 17 April 2023 to 16 April 2024 and 17 April 2024 to 16 April 2025 had not been submitted to the Department or uploaded to the Proponent's website for public access. This report has therefore been prepared retrospectively to address the identified reporting non-compliance and provide the required record of compliance for the relevant reporting period.

1.2. Compliance with 'Annual Compliance Report Guidelines (2014)'

The Commonwealth Government Department of Climate Change, Energy, Environment and Water (DCCEEW) maintain the Annual Compliance Report Guidelines (the Guideline), which aim to provide guidance to approval holders preparing annual compliance reports where required under a condition of their EPBC Act approval.

This Report has been prepared in accordance with the requirements of the Guideline, as described in Table 1.

Table 1 Guidelines Set Out in Annual Compliance Report Guidelines, 9781«

Guideline Requirement	Reference
Declaration of accuracy	Section 1.3
Document version control	Revision Record (Page 2)
Table of contents	Page 3
EPBC number	Title Page, Page Header, & Section 2.3
Project name	Title Page, Page Header, & Section 2.3
Approval holder and ACN or ABN	Section 2.1
The approved action	Section 2.2
Location of the project	Section 2.3
Dates for the reporting period of the report	Section 2.3
Date of preparation of the report	Section 2.3
The compliance report should demonstrate that all conditions of the EPBC approval have been considered and addressed, and list the conditions of the EPBC approval, including any variations to those conditions, noting if compliance or non-compliance with each condition has been achieved.	Section 4.4
If a management plan is required under an approval condition, the specifics in a management plan that support an approval condition should be detailed in the compliance report and material should be provided demonstrating that the requirements of that plan have been implemented	Section 4.1, & Section 4.2

1.3. 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 Julie Drago

Position Director, Hamersley 1 WA Pty Ltd ATF Hamersley Sub Trust

Organisation The Trustee for Hamersley Sub Trust

ABN/ACN 81 176 233 525

Date 30 / 09 / 2026

2. Description of Activities

2.1. Proponent Details

Proponent contact details associated with this Compliance Report are described in Table 2

Table 2 Proponent Details

Item	Details
Proponent	The Trustee for Hamersley Sub Trust
Australian Business Number (ABN)	81 176 233 525
Contact	Julie Drago
Address	Level 11, 108 Saint Georges terrace Perth WA 6000
Telephone	(08) 6498 9470
Email	Julie.drago@ovest.net.au

2.2. Approved Action

To construct and operate a commercial site on Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia (2021/9069) [See EPBC Act referral 2021/9069].

2.3. Location of Project

EPBC Number	2021/9069
Date of Decision	17/04/2023
Project Name	Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA
Approval Holder	The Trustee for Hamersley Sub Trust
Approval Holder ABN	81 176 233 525
Approved Action	To construct and operate a commercial site on Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia (EPBC 2021/9069).
Location of Project	4 & 6 Lodge Drive, East Rockingham, Perth, WA, 6168
Report Period	April 17 2024 – April 16 2025
Date Report Completed	25/09/2026
Person Accepting Responsibility for Report	Julie Drago Director Hamersley 1 WA Pty Ltd ATF Hamersley Sub Trust

3. Activities Undertaken this Reporting Period

Table 0 Activities Undertaken this Reporting Period

No.	Description of Activity	Date of Activity	Associated Conditions
1	RMP V4 feedback received by PGV Environmental from DCCEEW	29/04/2024	3, 4
2	Offset Site attended by Bioscience Pty Ltd to undertake soil testing	17/05/2024	3, 4
3	'Analytical Report' received from Bioscience Pty Ltd detailing the soil condition, and description of weed prevalence within the offset site.	14/06/2024	3, 4
4	Building Permit for construction of development on clearing site issued by City of Rockingham Building Department	3/10/2024	2
5	Construction commenced on site at 6 Lodge Drive	03/10/2024	2, 6
6	Revegetation Services Agreement between Hamersley 1 WA Pty Ltd and Natural Area executed	20/02/2025	3, 4
7	RMP V5 provided to DCCEEW by PGV Environmental	19/03/2025	3, 4, 13
8	Natural Area Team attended offset site to undertake weed mapping	24/03/2025	3, 4
9	Schedule of revegetation events provided to DBCA outlining the expected dates of works over a 5 year period. Soil testing report for the offset site was also provided on this date.	31/03/2025	3, 4
10	List detailing plant species and numbers for 2025 planting season provided to DBCA for approval	9/04/2025	3, 4
11	Lawful authority for access to offset site received from DBCA	16/04/2025	3, 4

4. Project Compliance

4.1. Implementation of Vegetation and Fauna Management Plan (VFMP)

Lots 12 and 13 Lodge Drive East Rockingham
EPBC 2021/9069. Vegetation and Fauna Management Plan
Version 2 dated 28 July 2022

Details of the implementation of the VFMP are noted in Table 4.

Table 1} Management Actions Specified in Approved Vegetation and Fauna Management Plan

No.	Management Action	Implementation	Comments on Implementation
M1	An induction package will be presented to all personnel prior to the commencement of works outlining the objectives, procedures and management actions in the VFMP.	Implemented	The builder and contractors were provided with copies of the clearing permit, and the VFMP.
M2	The existing fence will have dust curtains installed along the western boundary.	Implemented	Dust curtains were installed to the western boundary of the site in the previous
M3	The fence will be maintained during construction to ensure unauthorised access is minimised.	Implemented	The fencing surrounding the site was maintained during the reporting period with no damage found on weekly walk around of perimeter by site supervisor.
M4	Post construction the dust curtains will be taken down.	Not Applicable	Construction was not completed during this reporting period.
M5	Native vegetation outside of the development footprint will not be removed or disturbed.	Implemented	No native vegetation external to the development footprint was removed or disturbed. No Clearing was undertaken during this reporting period. The Existing Fire Track on the perimeter of the site acted as a buffer zone to ensure this. Appendix 7: Clearing Aerial Images Showing Clearing Activities Extents
M6	Fencing with dust curtains installed to prevent spread of airborne seeds as well as those that can be transported on vehicles.	Implemented	Dust curtains were installed to the western boundary of the site during the previous reporting period.
M7	Any priority weeds that grow in the landscaped areas of the site will be removed during landscaping maintenance works.	Not Applicable	Landscaping areas were not yet defined as construction was not completed during this period.

M8	Landscaping is to be undertaken in accordance with an approved Plan and will include, but not be limited to, species from Plants Used by Carnaby's Black Cockatoo (Groom, 2011).	Not Applicable	No Landscaping works were undertaken during this reporting period.
M9	Initial clearing works will be scheduled as much as possible in drier conditions.	Not Applicable	No clearing works were undertaken in this reporting period.
M10	Soil in the construction footprint will be stabilised so it is not prone to water erosion and being washed into adjoining bushland areas.	Implemented	Soil within the site was graded to ensure water flowed away from the boundary of the lot, into the development area. At no point was the ground inside of the perimeter fence at a higher level than the adjacent bushland.
M11	No contours will be created that will allow surface water drainage into the bushland.	Implemented	Soil within the site was graded to ensure water flowed away from the boundary of the lot, into the development area. At no point was the ground inside of the perimeter fence at a higher level than the adjacent bushland.
M12	Stockpiles will be constructed to ensure no soil transfer occurs to the adjoining bushland.	Implemented	At no point was soil stockpiled inside of the Western perimeter fence at a higher level than the adjacent bushland.
M13	All imported landscaping and revegetation materials (i.e. soil, mulch, seedlings) brought onsite will be weed and certified dieback free. Imported pipes, stone pitching materials and other construction materials are to be free of mud and soil.	Not Applicable	No Landscaping or revegetation materials were imported to the site during the reporting period. A portion of the mulched trees from the clearing was saved on site for later use in the landscaping works as the site is already confirmed die back free.
M14	Establish and enforce vehicle speed limits for unsealed areas with an objective to minimise dust generation soil.	Implemented	Speed limits were set to a maximum of 20km/h within the development area.

M15	Water cart to be present on-site during construction to dampen areas if dust is being generated and commence dust suppression immediately on visual evidence of dust lift.	Implemented	A water truck was present at site for the entirety of the reporting period.
M16	Avoid dust generating activities during unfavourable weather conditions (e.g. high wind speed) and unfavourable wind directions relative to sensitive areas, where practicable.	Implemented	Dust causing activities were avoided during high winds by the builder and sub contractors. There were no noted incidents where wind conditions required the stop of works on site during the reporting period.
M17	Implement semi-permanent dust control treatments (e.g. hydro-mulching, dust stabilisers, tarps or geo-textile materials) on stockpiles that are to be left for longer than one month.	Implemented	Stockpiles of sand/soil were avoided on site to reduce the risk of dust blowing from stockpiles into the neighbouring bushland.
M18	All outdoor bins at the site office are to have self-closing lids.	Implemented	Outdoor bins were avoided at site for the site office and worker amenities, instead opting for bins located within the site office, toilet block, and lunchroom. This ensured the risk of rubbish/waste being littered around the site was minimised. Bins located within the builders compound were fitted with limiters preventing the bins from being able to be left open or be opened by wind.
M19	Any waste that can become airborne to be removed from the construction site as soon as possible.	Implemented	Rubbish collection was undertaken from site frequently to ensure bins capacity was always available.
M20	All road and drainage basin construction waste are to be removed at the conclusion of construction.	Not Applicable	Works of this type were not undertaken during this reporting period.

Annual Compliance Report | 17 April 2024 – 16 April 2025 | The Trustee for Hamersley Sub Trust
EPBC 2021/9069 | Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA

M21	Ensure construction is consistent with the drainage design as outlined in an approved Urban Water Management Plan.	Implemented	Surface invert levels and stormwater infrastructure was installed as per certified Civil Drawing Set 11410-C, approved by the City of Rockingham in building permit no. 1.2024.2272.1
M22	All stormwater to be retained and infiltrated on site.	Implemented	The development area levels were maintained to ensure stormwater was retained on site.
M23	No overland flow of water will be allowed from the development into the adjoining bushland areas.	Implemented	Soil within the site was graded to ensure water flowed away from the boundary of the lot, into the development area. At no point was the ground inside of the perimeter fence at a higher level than the adjacent bushland.
M24	Implement a 20km/hr speed limit during construction and 50km/hr limit in the industrial area.	Implemented	Maximum 20Km/h speed limits were maintained across the development site. The surrounding roads have a speed limit of 50Km/h.
M25	Maintain construction roads to prevent the formation of water holding structures.	Implemented	Internal truck paths were formed on the site with compacted road base. The road base is a water permeable surface, so water pooling was avoided in these trafficked paths.
M26	Install traffic alert signs in areas noted to regularly have Black Cockatoos.	Not Applicable	No Black Cockatoo gatherings were noted on internal travel paths, or elsewhere within the development site during this reporting period.
M27	A zoologist will assess the trees prior to clearing.	Not Applicable	No tree clearing was undertaken during this reporting period.
M28	Employ fauna friendly clearing protocols by bumping trees prior to felling.	Not Applicable	No tree clearing was undertaken during this reporting period.
M29	Construction to be limited to daylight hours.	Implemented	Site work hours were between 7:00am and 5:00pm.

M30	Use of cut-off lights designed to direct light onto the road and minimise off-target glare and light spill where appropriate.	Not Applicable	As works were undertaken during daylight hours, no specific headlights were required on equipment.
M31	Visual inspection of the boundary of the development area on a weekly basis by the site manager.	Implemented	A walkthrough of the site was undertaken by the site manager several times a week to check for hazards, and security issues. This walk through included a check of the perimeter fencing for site security. The boundary was additionally visually inspected fortnightly by the project manager during their site visits.
M32	Visual inspection by the project botanist of three photo points in the adjoining bushland on an annual basis.	Not Implemented	This Action was not implemented. The proponent became aware of the non-implementation of this management action whilst retroactively preparing this Annual Compliance Report. Notification of the non-compliance was given to the Department electronically on Wednesday 23 September 2026 in compliance with EPBC 2021-9069 condition 29 and condition 30. At the time of this report's writing, the written notification of the non-compliance has not yet been finalised and delivered in compliance with condition 31.
M33	Monthly review of the hygiene register by site manager.	Implemented	The register was reviewed during fortnightly site meetings while works were undertaken at site. During this reporting period, there were no issues found in relation to the compliance of contractors and suppliers in regard to vehicle hygiene when entering or exiting the development site.

M34	Annual monitoring report detailing activities, any contingency actions, any remedial actions and monitoring results will be submitted in the annual compliance report.	Not Implemented	The Annual Compliance Report was not prepared during this reporting period. This non implementation was reported to the Department as a non-compliance. This Report has been prepared retroactively in September of 2026 as part of a corrective action for this non- compliance/non-implementation of the condition/management action.
-----	--	-----------------	---

4.2. Implementation of Revegetation Management Plan (RMP)

EPBC 2021/9069 Offset

Lot 333 Mandurah Road Warnbro. Tuart TEC Revegetation Management Plan.

Version 7 dated 23 June 2026

Works undertaken to progress the implementation of the Revegetation management plan during this reporting period are noted in Table 5.

Table 2} Management Actions Specified in Approved Revegetation Management Plan

No.	Action	Status	Comments
1	Contract a qualified rehabilitation and revegetation contractor to undertake on-ground planning for and revegetation works at RLRP site.	Completed	During this compliance period a contract was signed between the approval holder and Natural Area Pty Ltd to undertake the offset revegetation works. The contract was signed on 20 February 2025. Appendix 3: Revegetation Services Agreement
2	Undertake soil testing at offset sites and provide results to DBCA. Discuss potential treatments if there are any areas of concern.	Completed	Soil testing was undertaken at the offset site on 17 May 2024 by Bioscience Pty Ltd. The report was received date 14 June 2024. The soil testing report was later provided to DBCA on 31 March 2025. No specific treatments or areas of concern were noted by the revegetation contractor or DBCA. Appendix 1: Offset Site Soil Testing Report
3	Prepare a plan to address any soil conditions that require treatment prior to planting.	Not Applicable	No soil conditions that would require addressing are noted in the testing undertaken. Appendix 1: Offset Site Soil Testing Report
4	Survey Tuart Woodland vegetation in Bush Forever Site No 356 and revise species list if required based on survey results.	Completed	Natural Area team attended the offset site on 24 March 2025 to survey weeds and plant species.
5	Finalise species selection list based on the Bush Forever Site 356 Reference Sites.	Completed	Species selection and planting numbers provided to DBCA on 9 April 2025 for final approval. Appendix 4: Revegetation Plant Species List for 2025 Planting Season
6	Review stock availability.	Completed	Natural Area undertook reviews of stock availability throughout the year preceding the beginning of the revegetation works as part of their normal duties. The planting numbers provided to DBCA for approval were based on available inventory levels.
7	Provide the species list to DBCA for review.	Completed	Species selection and planting numbers provided to DBCA on 9 April 2025 for final approval. Appendix 4: Revegetation Plant Species List for 2025 Planting Season

8	Prepare planting design, schedule and costs for RLRP site based on agreed species list	Completed	Details of the planting works and schedule were prepared by Natural Area as part of the quoting, and contract preparation undertaken with the approval holder. Appendix 3: Revegetation Services Agreement
9	Discuss with the DBCA and agree on planting design and schedule.	Completed	Details of the planting works and schedule were provided to DBCA for comment and sign off on 31 march 2025. The Schedule was amended/clarified based on comments from DBCA.
10	Order forestry Tube Stock as per agreed schedule.	Not Applicable	Works have not yet reached this stage.
11	Provide the planting design and species list in the annual Compliance Report provided to the Department to meet Condition 25 of the EPBC 2021/9069 approval.	Not Applicable	Works have not yet reached this stage.
12	Revegetation contractor to meet with fencing and civil contractors to discuss site works and fencing requirements. ensure correct style of fencing is constructed.	Not Applicable	Works have not yet reached this stage.
13	Discuss locked access points with DBCA	Not Applicable	Works have not yet reached this stage.
14	Survey site and fence with 1.8m construction style fence with rabbit curtains.	Not Applicable	Works have not yet reached this stage.
15	Implement weed management, ripping, and fencing as per site works plan.	Not Applicable	Works have not yet reached this stage.

16	Minimise the use of herbicides in riparian areas.	Not Applicable	Works have not yet reached this stage.
17	DBCA approved sign indicating that rehabilitation work is occurring will be erected on access gates to site (e.g. No access – rehabilitation in progress).	Not Applicable	Works have not yet reached this stage.
18	Tube stock planting as per schedule.	Not Applicable	Works have not yet reached this stage.
19	Undertake short term monitoring of weed control success to identify any outbreaks following weed removal or suppression.	Not Applicable	Works have not yet reached this stage.
20	Monitor for any of the listed woody weeds on the site.	Not Applicable	Works have not yet reached this stage.
21	Implement vegetation monitoring program on a twice-yearly basis (Autumn and Spring).	Not Applicable	Works have not yet reached this stage.
22	Provide annual monitoring report to DBCA and include in DCCEEW Compliance Report for EPBC 2021/9069.	Not Applicable	Works have not yet reached this stage.
23	Supplement with infill planting when required.	Not Applicable	Works have not yet reached this stage.

24	Site maintenance to be carried out. This will include maintenance of perimeter fence, weed management and rabbit/kangaroo control as required on a monthly basis.	Not Applicable	Works have not yet reached this stage.
25	Maintenance issues to be reported to the Environmental Consultant.	Not Applicable	Works have not yet reached this stage.
26	Keep fuel load weeds mown prior to fire seasons.	Not Applicable	Works have not yet reached this stage.
27	Remove all waste from site, consult with DBCA if asbestos is located.	Not Applicable	Works have not yet reached this stage.
28	Prepare annual monitoring report on project status.	Not Applicable	Works have not yet reached this stage.
29	Provide monitoring report to DBCA and DCCEEW.	Not Applicable	Works have not yet reached this stage.
30	Provide a 5 year Progress Report to DCCEEW and DBCA.	Not Applicable	Works have not yet reached this stage.
31	Once completion criteria and goals have been met, inform DBCA and DCCEEW and request recognition that the project is completed.	Not Applicable	Works have not yet reached this stage.
32	The Proponent will undertake a final weed control program prior to handing management of the offset site	Not Applicable	Works have not yet reached this stage.

	back to DBCA to ensure that the weed completion criteria have been met. Remove fence on advice from DBCA.		
33	Inform DBCA that management of the revegetation is complete.	Not Applicable	Works have not yet reached this stage.

4.3. Implementation of Offset Strategy

Lots 12 and 13 Lodge Drive East Rockingham
EPBC 2021/9069. Preliminary Documentation: Section 5 – Offset Strategy
Version 5 dated 17 January 2023 by

During the reporting period, Hamersley 1 WA Pty Ltd progressed implementation of the offset strategy outlined in Section 5 of the EPBC Act Preliminary Documentation – Offset Strategy (Version 5, dated 17 January 2023).

The Offset Strategy requires the Proponent to undertake the revegetation works and manage the offset site until the nominated completion criteria are achieved. The strategy also requires the revegetation to be undertaken in consultation with DBCA and provides for the preparation of a Rehabilitation Plan to guide site preparation, planting, maintenance and monitoring.

During the reporting period, the following key actions were completed to progress implementation of the offset strategy:

Appointment of a specialist revegetation contractor

To ensure the offset works were undertaken by a suitably experienced contractor, Hamersley 1 WA Pty appointed Natural Area Consulting Management Services to undertake the offset revegetation works.

Natural Area has approximately 20 years of experience undertaking revegetation within the Perth metropolitan region and has undertaken projects across wetlands, bushland, landscaped areas and foreshores. Its relevant project experience include:

- Shire of Capel: Kemerton Offset Planting Project (Kemerton) (2021 - 2022)
- Shire of Goomalling: Offset Revegetation Plant Supply and Installation (2021)
- Shire of Capel: Kemerton Offset Planting Project (Kemerton) (2021 - 2022)
- Shire of Goomalling: Offset Revegetation Plant Supply and Installation (2021)

and a range of other revegetation and natural area management projects through Western Australia's South West region.

The appointment of a specialist contractor is consistent with the Offset Strategy's requirement that the Proponent undertake and manage the revegetation works, while allowing the works to be delivered by suitably experienced specialists. The Offset Strategy itself does not nominate a particular contractor to undertake the works

Formalisation of the five-year revegetation program

On 18 December 2023, Natural Area issued a quotation to Hamersley 1 WA Pty Ltd for a five-year program of works for the offset site. Hamersley 1 WA Pty Ltd subsequently commenced preparation of a Revegetation Services Agreement to formalise acceptance of the quotation and establish the contractual arrangements for delivery of the offset works.

The Revegetation Services Agreement was developed with reference to the applicable clearing permit requirements and the Revegetation Management Plan (Version 5), and was intended to provide the works necessary to implement the offset strategy over the nominated five-year establishment and management period.

The contract scope includes:

- Initial weed control,
- Ongoing targeted weed control,
- Site preparation,
- Supply and installation of tube stock,
- Ongoing maintenance, including:
 - Weed control,

- Infill planting,
 - Rubbish collection and removal,
 - Fence and gate maintenance,
 - Pest control,
 - Bushfire management,
- Monitoring,
- Reporting.

This scope aligns with the activities identified in the Offset Strategy, including weed management, pest management, soil/site preparation, planting, ongoing maintenance, monitoring, infill planting and contingency management.

During this period, no works were yet undertaken on the offset site and therefore the establishment, maintenance, monitoring and reporting activities undertaken after the reporting period will be addressed in subsequent annual compliance reporting period.

This is consistent with the Offset Strategy, which anticipates a five-year monitoring and management period and requires the Proponent to continue managing the site until the completion criteria are achieved.

4.4.Compliance with EPBC Approval Conditions

Details of compliance with the approval conditions is noted in Table 6.

Table 3} Condition Compliance

No.	Condition Wording	Compliance	Evidence & Comments
1	To avoid and mitigate the impacts to protected matters, the approval holder must not: a) Clear outside of the development envelope. b) Clear more than 5.495 hectares (ha) of Tuart Ecological Community. c) Clear more than 1.5ha of Carnaby's Black Cockatoo foraging habitat.	Compliant	No clearing was undertaken outside the development envelope and clearing has not exceeded the approved clearing limits. Clearing was contained within the approved disturbance footprint: Tuart Ecological Community not exceeding 3.9 ha (of 5.495 ha approved) and Carnaby's Black Cockatoo foraging habitat approximately 1.4 ha (of 1.5 ha approved). Appendix 7: Clearing Aerial Images Showing Clearing Activities Extents
2	To mitigate impacts to the protected matters, the approval holder must implement the Vegetation and Fauna Management Plan during the construction period.	Not Compliant	The Vegetation and Fauna Management Plan (VFMP 10447_017_BH V2) was implemented during the construction period with the exception of Management Action number 32, this is detailed in Table 4 of this report. This non-compliance was found during the retroactive creation of this Annual Compliance Report on 21 September 2026. A notice of non-compliance was submitted to the department by the approval holder noting this non compliance on 23 September 2026.
3	To compensate for the residual significant impacts of clearing on the Tuart Ecological Community and foraging habitat for the Carnaby's Black Cockatoo the approval holder must implement the Offset Strategy for the life of the approval.	Compliant	The Offset strategy was progressed during the reporting period as outlined in section 4.3 Implementation of Offset Strategy.
4	Prior to commencement of the action and to compensate for the residual significant impact under condition 3, the approval holder must submit to the department for the Minister's approval a Revegetation Management	Compliant	The Revegetation Management Plan (RMP) was submitted to the department on 31st August 2023, prior to commencement of the action.

	Plan (RMP). The RMP must be included as part of the Offset Strategy under condition 3. The environmental outcome of implementing the RMP must be to recreate at least 3.5 ha of the Tuart Ecological Community within the Rockingham Lakes Regional Park, 7km south of development envelope, that meets the listing criteria for high quality Tuart Ecological Community and is self-sustaining by 30 April 2063. The RMP must be consistent with the department's Environmental Management Plan Guidelines, and include: a) Details of the relevant protected matter/s and a reference to EPBC Act approval conditions to which the plan refers. b) A table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan. c) Commitments capable of ensuring that the environmental outcomes are achieved. These commitments must include: i. To commence revegetation across at least 3.5ha within 2 years of commencement of the action. ii. The species and their provenance, and the approximate numbers of individuals of each species to be planted and/or seeded and the approximate timing of planting/seeding and milestones and success criteria for revegetation. iii. Measures, including for hygiene, ground preparation and weed and herbivore control, and the approximate timing of the measures, to be undertaken prior to, during and following planting/seeding to ensure the success of the revegetation. d) Reporting and review mechanisms to ensure compliance with the commitments made in the plan. e) An assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks. f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures. g) A monitoring program, which must include: i. measurable performance indicators and completion criteria, which must include: I. survival 40 years after planting, of at least 1.6 Tuart trees per 100m² II. at least 12 local native understorey species per 10 m x 10 m plot III. native vegetation coverage of at least 80% of the		
--	--	--	--

	total vegetation cover at least 40 years after planting/seeding ii. trigger values for corrective actions. iii. the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators. iv. proposed corrective actions if trigger values are reached. v. the timing and methods of submitting monitoring data to the department. h) Links to other relevant plans or conditions of approval (including state/local government approval conditions).		
5	When submitting the RMP to the department for the Minister's approval, the approval holder must provide the department with written evidence from the Western Australian Department Biodiversity, Conservation and Attractions (DBCA) confirming that DBCA considers that the outcomes and goals specified in the Revegetation Management Plan are achievable using the methods and within the timeframes specified in the Revegetation Management Plan.	Compliant	A letter was provided to the department confirming DBCA considers the outcomes and goals in the RMP achievable. Confirmed compliant by DCCEE audit. Appendix 9: DBCA Letter of Confirmation
6	The approval holder must not commence the action until the Minister has approved the Revegetation Management Plan in writing. The approval holder must commence implementing the approved Revegetation Management Plan within 2 years of the commencement of the action and thereafter must continue to implement the RMP until the expiry of this approval.	Non-Compliant	The action commenced on 1st September 2023, prior to the Minister's written approval of the RMP. The approval holder self-reported this non-compliance to the department by letter dated 30th March 2026. At the date of this report the RMP (Version 7) has now been approved formally by the Ministers Delegate. Appendix 10: Notice of Non-Compliance- Commencement of Action Prior to RMP Approval Appendix 8: Letter of Approval- Revegetation Management Plan

7	The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the revised action management plan (RAMP) in place of the previous action management plan (RAMP).	Not Applicable	The approval holder did not apply for a variation to any associated action management plans in this reporting period.
8	The approval holder may choose to revise the Vegetation and Fauna Management Plan approved by the Minister under condition 2, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the EPBC Act, if the taking of the Action in accordance with the revised Vegetation and Fauna Management Plan would not be likely to have a new or increased impact.	Not Applicable	The approval holder did not choose to revise the VFMP during this reporting period.
9	If the approval holder makes the choice under condition 15 to revise the Vegetation and Fauna Management Plan without submitting it for approval, the approval holder must: a) Notify the department electronically that the approved Vegetation and Fauna Management Plan has been revised and provide the department with: i. An electronic copy of the revised Vegetation and Fauna Management Plan. ii. An electronic copy of the revised Vegetation and Fauna Management Plan marked up with track changes to show the differences between the approved action management plan and the revised Vegetation and Fauna Management Plan. iii. An explanation of the differences between the approved Vegetation and Fauna Management Plan and the revised Vegetation and Fauna Management Plan. iv. The reasons the approval holder considers that taking the Action in accordance with the revised Vegetation and Fauna Management Plan would not be likely to have a new or increased impact. v. Written notice of the date on which the approval holder will implement the revised Vegetation and Fauna Management	Not Applicable	The approval holder did not choose to revise the VFMP during this reporting period.

	Plan (revised Vegetation and Fauna Management Plan implementation date), being at least 20 business days after the date of providing notice of the revision of the Vegetation and Fauna Management Plan, or a date agreed to in writing with the department. b) Subject to condition 15, implement the revised Vegetation and Fauna Management Plan from the revised Vegetation and Fauna Management Plan implementation date.		
10	The approval holder may revoke its choice to implement a revised Vegetation and Fauna Management Plan under condition 15 at any time by giving written notice to the department. If the approval holder revokes the choice under condition 15, the approval holder must implement the Vegetation and Fauna Management Plan in force immediately prior to the revision undertaken under condition 15.	Not Applicable	The approval holder did not choose to revise the VFMP during this reporting period.
11	If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the Action in accordance with the revised Vegetation and Fauna Management Plan would be likely to have a new or increased impact, then: a) Condition 15 does not apply, or ceases to apply, in relation to the revised Vegetation and Fauna Management Plan. b) The approval holder must implement the Vegetation and Fauna Management Plan specified by the Minister in the notice.	Not Applicable	
12	At the time of giving the notice under condition 18, the Minister may also notify that for a specified period of time, condition 15 does not apply for one or more specified Action management plans.	Not Applicable	
13	The approval holder must submit all plans required by these conditions electronically to the department.	Compliant	All plans required by these conditions (VFMP, Offset Strategy, and RMP) have been submitted electronically to the department as part of the approvals process.

14	Unless otherwise agreed to in writing by the Minister, the approval holder must publish each plan on the website within 15 business days of the date: a) of this approval, if the version of the plan to be implemented is specified in these conditions; or b) the plan is approved by the Minister in writing, if the plan requires the approval of the Minister; or c) the plan is submitted to the department in accordance with a requirement of these conditions, if the plan does not require the approval of the Minister; or d) the plan is approved by a state/territory government as required under a state/territory government condition which must be complied with in accordance with these EPBC Act conditions.	Non-Compliant	This is being rectified as part of the corrective actions arising from the DCCEEW compliance audit and self-reported non-compliances. As of the publishing of this ACR, all applicable plans have been published on the website.
15	The approval holder must keep all published plans required by these conditions on the website until the expiry date of this approval.	Non-Compliant	This non-compliance was discovered by the Department during the 2025 Audit close out. As of the publishing of this ACR, all applicable plans have been published on the website.
16	The approval holder is required to exclude or redact sensitive ecological data from plans published on the website or otherwise provided to a member of the public.	Not Applicable	No sensitive data or plans were required to be excluded or redacted.
17	If sensitive ecological data is excluded or redacted from a plan in accordance with condition 14, the approval holder must notify the department in writing what exclusions and redactions have been made in the version published on the website.	Not Applicable	No sensitive data or plans were required to be excluded or redacted.

18	The approval holder must notify the department electronically of the date of commencement of the Action, within 5 business days of commencement of the Action.	Not Applicable	The action was not commenced during this reporting period. Appendix 11: Notice of Non-Compliance- Notice of Commencement of Action
19	If the commencement of the Action does not occur within 5 years from the date of this approval, then the approval holder must not commence the Action without the prior written agreement of the Minister.	Not Applicable	Action Commenced within the 5 year period.
20	The approval holder must maintain accurate and complete compliance records.	Non-Compliant	Corrective actions, including calendarisation of reporting deadlines and assignment of internal accountability, have been implemented. Including the retroactive creation of this compliance report. Appendix 6: Notice of Non-Compliance- Reporting
21	If the department makes a request in writing, the approval holder must provide electronic copies of compliance records to the department within the timeframe specified in the request.	Not Applicable	No requests were made by the Department during this reporting period.
22	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the department's <i>Guidelines for biological survey and mapped data</i> (2018), or any subsequent official version or as otherwise specified by the Minister in writing.	Not Applicable	

23	The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the department's <i>Guide to providing maps and boundary data for EPBC Act projects</i> (2021), or any subsequent official version or as otherwise specified by the Minister in writing.	Not Applicable	
24	The approval holder must submit all monitoring data (including sensitive ecological data), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the department in accordance with the requirements of the Vegetation and Fauna Management Plan and the Revegetation Management Plan.	Not Applicable	
25	The approval holder must prepare a compliance report for each 12-month period following the date of this approval, or as otherwise agreed to in writing by the Minister.	Non-Compliant	The Annual Compliance Report for the period covering April 17 2023 – April 16 2024 was not prepared during this reporting period. The retroactive creation and submission of this report acts as a corrective action for this non compliance. Appendix 6: Notice of Non-Compliance- Reporting
26	Each compliance report must be consistent with the department's <i>Annual Compliance Report Guidelines</i> (2014), or any subsequent official version.	Non-Compliant	The Annual Compliance Report for the period covering April 17 2023 – April 16 2024 was not prepared during this reporting period. The retroactive creation and submission of this report acts as a corrective action for this non compliance. Appendix 6: Notice of Non-Compliance- Reporting

27	Each compliance report must include: a) Accurate and complete details of compliance and any non-compliance with the conditions and the plans, and any incidents. b) One or more shapefile showing all clearing of any protected matters, and/or their habitat, undertaken within the 12-month period at the end of which that compliance report is prepared. c) A schedule of all plans in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.	Non-Compliant	The Annual Compliance Report for the period covering April 17 2023 – April 16 2024 was not prepared during this reporting period. The retroactive creation and submission of this report acts as a corrective action for this non compliance. Appendix 6: Notice of Non-Compliance- Reporting
28	The approval holder must: a) Publish each compliance report on the website within 60 business days following the end of the 12-month period for which that compliance report is required. b) Notify the department electronically, within 5 business days of the date of publication that a compliance report has been published on the website. c) Provide the weblink for the compliance report in the notification to the department. d) Keep all published compliance reports required by these conditions on the website until the expiry date of this approval. e) Exclude or redact sensitive ecological data from compliance reports published on the website or otherwise provided to a member of the public. f) If sensitive ecological data is excluded or redacted from the published version, submit the full compliance report to the department within 5 business days of its publication on the website and notify the department in writing what exclusions and redactions have been made in the version published on the website.	Non-Compliant	The Annual Compliance Report for the period covering April 17 2023 – April 16 2024 was not prepared during this reporting period. The retroactive creation and submission of this report acts as a corrective action for this non compliance. Appendix 6: Notice of Non-Compliance- Reporting

29	The approval holder must notify the department electronically, within 2 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan.	Not Applicable	The approval holder was not aware of any non-compliances during the reporting period.
30	The approval holder must specify in the notification: a) Any condition or commitment made in a plan which has been or may have been breached. b) A short description of the incident and/or potential non-compliance and/or actual non-compliance. c) The location (including co-ordinates), date, and time of the incident and/or potential non-compliance and/or actual non-compliance.	Not Applicable	No Notifications were made during this reporting period.

31	The approval holder must provide to the department in writing, within 12 business days of becoming aware of any incident and/or potential non-compliance and/or actual non-compliance, the details of that incident and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a plan. The approval holder must specify: a) Any corrective action or investigation which the approval holder has already taken. b) The potential impacts of the incident and/or non-compliance and/or non-compliance. c) The method and timing of any corrective action that will be undertaken by the approval holder.	Not Applicable	The approval holder was not aware of any non-compliances during the reporting period.
32	The approval holder must ensure that an independent audit of compliance with the conditions is conducted for every five-year period following the commencement of the Action until this approval expires, unless otherwise specified in writing by the Minister.	Not Applicable	A 5 year period has not lapsed since the action, therefore no independent audit has been required.

33	For each independent audit, the approval holder must: a) Provide the name and qualifications of the nominated independent auditor, the draft audit criteria, and proposed timeframe for submitting the audit report to the department prior to commencing the independent audit. b) Only commence the independent audit once the nominated independent auditor, audit criteria and timeframe for submitting the audit report have been approved in writing by the department. c) Submit the audit report to the department for approval within the timeframe specified and approved in writing by the department. d) Publish each audit report on the website within 15 business days of the date of the department's approval of the audit report. e) Keep every audit report published on the website until this approval expires.	Not Applicable	A 5 year period has not lapsed since the action, therefore no independent audit has been required.
34	Each audit report must report for the five-year period preceding that audit report.	Not Applicable	A 5 year period has not lapsed since the action, therefore no independent audit has been required.
35	Each audit report must be completed to the satisfaction of the Minister and be consistent with the department's <i>Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines</i> (2019), or any subsequent official version.	Not Applicable	A 5 year period has not lapsed since the action, therefore no independent audit has been required.
36	The approval holder must notify the department electronically 60 business days prior to the expiry date of this approval, that the approval is due to expire.	Not Applicable	A 5 year period has not lapsed since the action, therefore no independent audit has been required.

37	Within 20 business days after the completion of the Action, and, in any event, before this approval expires, the approval holder must notify the department electronically of the date of completion of the Action and provide completion data.	Not Applicable	The action was not completed during the reporting period. As per the definition in the EPBC Approval Document, the approval will be completed once all activities associated with the approval permanently cease, or are completed.
----	---	----------------	--

5. Corrections of Non-Compliance

5.1. Non-Compliances from Previous Reporting Periods

Table 4} Non-Compliances from Previous Reporting Periods

Non-Compliance	Corrective Actions
Clearing Action undertaken without RMP sign off by Minister	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
Department not notified within 5 business days of clearing works starting	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
All Plans that form part of this approval were not published to approval holders website within 15 business days of approval.	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
All Plans were not available on approval holders website until expiry of the approval	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time

5.2. Non-Compliances from this Reporting Period

Table 5} Non-Compliances from this Reporting Period

Non-Compliance	Corrective Actions
Clearing Action undertaken without RMP sign off by Minister	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
Department not notified within 5 business days of clearing works starting	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
All Plans that form part of this approval were not published to approval holders website within 15 business days of approval.	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
All Plans were not available on approval holders website until expiry of the approval	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
Accurate and complete records not kept for the reporting period	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time
Compliance report for previous 12 month reporting period was not prepared and uploaded to the approval holders website, and sent to the department.	Corrective actions were not undertaken during this reporting period as the approval holder was not aware of the non compliance at this time

6. New Environmental Risks

No new environmental risks were identified during this reporting period.

7. Other Information

8. References

DCCEEW. 2014. Annual Compliance Report Guidelines,
<https://www.awe.gov.au/sites/default/files/documents/annual-compliance-report-guidelinesrevised.pdf>,
Australian Government Department of the Environment.

DCCEEW. 2018. Guidelines for Biological Survey and Mapped Data,
<https://www.dcceew.gov.au/sites/default/files/documents/guidelines-biological-survey-mapped-data.pdf>,
Australian Government Department of the Environment.

9. Appendixes

9.1. Appendix 1: Offset Site Soil Testing Report

ANALYTICAL REPORT

CLIENT:	Natural Area Management	REPORT NO:	2024_0631-0634
TEST REQUEST:	Standard Soil Fertility	LAB SAMPLE ID:	2024_0631
ADDRESS:	Walyunga Lake, WA	DATE RECEIVED:	17/05/2024
CLIENT SAMPLE ID:	See Below	DATE TESTED:	17/05/24-14/06/24
SAMPLING LOCATION:	See Below	DATE REPORTED:	14/06/2024

TEST RESULTS

Analyte	Hole 1 2024_0631	Unit
Electrical Conductivity	0.110	mS/cm
pH - CaCl ₂	8.10	-
pH - H ₂ O	9.21	-
Exchangeable Potassium	6.30	0.110% mg/kg
Exchangeable Sodium	51.4	1.46% mg/kg
Exchangeable Magnesium	158	8.52% mg/kg
Exchangeable Calcium	2750	89.9% mg/kg
Nitrate-N	2.4	mg/kg
Ammonium-N	15.2	mg/kg
Phosphate-P	5	mg/kg
Carbon	5.30*	%
Organic Matter	<1*	%

Sample Analysis: Material received is subsampled and dried at 40°C. Electrical Conductivity is analysed by EC Sensor in accordance with Rayment and Lyons 3A1. pH-CaCl₂ and pH-H₂O is analysed by IJ pH Sensor in accordance to Rayment and Lyons 4B1 and 4A1 respectively. Exchangeable Potassium, Sodium, Magnesium and Calcium are analysed using NH₄Cl Extraction and Atomic Absorption Spectrometry (AAS) in accordance with Rayment and Lyons 18A1, 15A1, 15A1 and 15A1 respectively. Nitrate and Ammonium are analysed by Colorimetric assay. Phosphate-P is analysed by Colorimetric Assay using method described in Rayment and Lyons 9B1. Carbon is analysed by Leco Induction Furnace method and Organic Matter calculated from the percentage carbon.

* The Carbon includes inorganic carbonates, this has been corrected for when calculating the Organic Matter using the method described in Rayment & Lyons 2011 Method 19A1

INTERPRETATION:

The Electrical Conductivity (EC) is a measure of total salts, as a general rule, sandy soils with an EC below 0.1 will grow salt-sensitive plants, but above an EC of 0.2, many plants may have poor growth.

The soil is Strongly Alkaline, above the ideal range for many plants, at this level of pH plants may have difficulty with the uptake of trace elements iron, manganese, copper and zinc. Nitrogen can also start to become less plant available.

The exchangeable cations are dominated by calcium, with magnesium in a normal range. Exchangeable potassium is proportionately very low.

The level of plant available phosphorus is low. As a rule 20mg/kg of plant available phosphorus will not limit growth.

Addition of a strong acid indicated that high levels of carbonates were present in the soil, accounting for the alkalinity.

These results reflect our findings for the received sample only.

Tested by: SM, HF, GN, TW

Date: 14/06/2024

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

ANALYTICAL REPORT

CLIENT:	Natural Area Management	REPORT NO:	2024_0631-0634
TEST REQUEST:	Standard Soil Fertility	LAB SAMPLE ID:	2024_0632
ADDRESS:	Walyungup Lake, WA	DATE RECEIVED:	17/05/2024
CLIENT SAMPLE ID:	See Below	DATE TESTED:	17/05/24-14/06/24
SAMPLING LOCATION:	See Below	DATE REPORTED:	14/06/2024

TEST RESULTS

Analyte	Sample 1 2024_0632		Unit
Electrical Conductivity	0.223		mS/cm
pH - CaCl ₂	7.68		-
pH - H ₂ O	8.49		-
Exchangeable Potassium	57.4	0.697%	mg/kg
Exchangeable Sodium	34.6	0.714%	mg/kg
Exchangeable Magnesium	311	12.1%	mg/kg
Exchangeable Calcium	3650	86.4%	mg/kg
Nitrate-N	9.4		mg/kg
Ammonium-N	4.52		mg/kg
Phosphate-P	17		mg/kg
Carbon	9.04*		%
Organic Matter	3.37*		%

Sample Analysis: Material received is subsampled and dried at 40°C. Electrical Conductivity is analysed by EC Sensor in accordance with Rayment and Lyons 3A1. pH-CaCl₂ and pH-H₂O is analysed by IJ pH Sensor in accordance to Rayment and Lyons 4B1 and 4A1 respectively. Exchangeable Potassium, Sodium, Magnesium and Calcium are analysed using NH₄Cl Extraction and Atomic Absorption Spectrometry (AAS) in accordance with Rayment and Lyons 18A1, 15A1, 15A1 and 15A1 respectively. Nitrate and Ammonium are analysed by Colorimetric assay. Phosphate-P is analysed by Colorimetric Assay using method described in Rayment and Lyons 9B1. Carbon is analysed by Leco Induction Furnace method and Organic Matter calculated from the percentage carbon.

* The Carbon includes inorganic carbonates, this has been corrected for when calculating the Organic Matter using the method described in Rayment & Lyons 2011 Method 19A1

INTERPRETATION:

The Electrical Conductivity (EC) is a measure of total salts, as a general rule, sandy soils with an EC below 0.1 will grow salt-sensitive plants, but above an EC of 0.2, many plants may have poor growth.

The soil is Strongly Alkaline, above the ideal range for many plants, at this level of pH plants may have difficulty with the uptake of trace elements iron, manganese, copper and zinc. Nitrogen can also start to become less plant available.

The exchangeable cations are dominated by calcium, with magnesium in a normal range. Exchangeable potassium is proportionately low.

As a rule 20mg/kg of plant available phosphorus will not limit growth.

Addition of a strong acid indicated that high levels of carbonates were present in the soil, accounting for the alkalinity.

These results reflect our findings for the received sample only.

Tested by: SM, HF, GN, TW

Date: 14/06/2024

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

ANALYTICAL REPORT

CLIENT:	Natural Area Management	REPORT NO:	2024_0631-0634
TEST REQUEST:	Standard Soil Fertility	LAB SAMPLE ID:	2024_0633
ADDRESS:	Walyungup Lake, WA	DATE RECEIVED:	17/05/2024
CLIENT SAMPLE ID:	See Below	DATE TESTED:	17/05/24-14/06/24
SAMPLING LOCATION:	See Below	DATE REPORTED:	14/06/2024

TEST RESULTS

Analyte	Sample 2 2024_0633	Unit
Electrical Conductivity	0.387	mS/cm
pH - CaCl ₂	7.72	-
pH - H ₂ O	8.38	-
Exchangeable Potassium	105	1.01% mg/kg
Exchangeable Sodium	72.4	1.18% mg/kg
Exchangeable Magnesium	510	15.7% mg/kg
Exchangeable Calcium	4390	82.1% mg/kg
Phosphate-P	18	mg/kg
Carbon	11.02*	%
Organic Matter	5.23*	%

Sample Analysis: Material received is subsampled and dried at 40°C. Electrical Conductivity is analysed by EC Sensor in accordance with Rayment and Lyons 3A1. pH-CaCl₂ and pH-H₂O is analysed by IJ pH Sensor in accordance to Rayment and Lyons 4B1 and 4A1 respectively. Exchangeable Potassium, Sodium, Magnesium and Calcium are analysed using NH₄Cl Extraction and Atomic Absorption Spectrometry (AAS) in accordance with Rayment and Lyons 18A1, 15A1, 15A1 and 15A1 respectively. Nitrate and Ammonium are analysed by Colorimetric assay. Phosphate-P is analysed by Colorimetric Assay using method described in Rayment and Lyons 9B1. Carbon is analysed by Leco Induction Furnace method and Organic Matter calculated from the percentage carbon.

* The Carbon includes inorganic carbonates, this has been corrected for when calculating the Organic Matter using the method described in Rayment & Lyons 2011 Method 19A1

INTERPRETATION:

The Electrical Conductivity (EC) is a measure of total salts, as a general rule, sandy soils with an EC below 0.1 will grow salt-sensitive plants, but above an EC of 0.2, many plants may have poor growth.

The soil is Strongly Alkaline, above the ideal range for many plants, at this level of pH plants may have difficulty with the uptake of trace elements iron, manganese, copper and zinc. Nitrogen can also start to become less plant available.

The exchangeable cations are dominated by calcium, with magnesium in a normal range. Exchangeable potassium is proportionately low.

As a rule 20mg/kg of plant available phosphorus will not limit growth.

Addition of a strong acid indicated that high levels of carbonates were present in the soil, accounting for the alkalinity

These results reflect our findings for the received sample only.

Tested by: SM, HF, GN, TW

Date: 14/06/2024

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

ANALYTICAL REPORT

CLIENT:	Natural Area Management	REPORT NO:	2024_0631-0634
TEST REQUEST:	Standard Soil Fertility	LAB SAMPLE ID:	2024_0634
ADDRESS:	Walyungup Lake, WA	DATE RECEIVED:	17/05/2024
CLIENT SAMPLE ID:	See Below	DATE TESTED:	17/05/24-14/06/24
SAMPLING LOCATION:	See Below	DATE REPORTED:	14/06/2024

TEST RESULTS

Analyte	Sample 3 2024_0634	Unit
Electrical Conductivity	0.227	mS/cm
pH - CaCl ₂	7.94	-
pH - H ₂ O	8.59	-
Exchangeable Potassium	54.7	0.621% mg/kg
Exchangeable Sodium	30.6	0.590% mg/kg
Exchangeable Magnesium	535	19.5% mg/kg
Exchangeable Calcium	3580	79.3% mg/kg
Nitrate-N	18.8	mg/kg
Ammonium-N	7.0	mg/kg
Phosphate-P	32	mg/kg
Carbon	11.0*	%
Organic Matter	1.85*	%

Sample Analysis: Material received is subsampled and dried at 40°C. Electrical Conductivity is analysed by EC Sensor in accordance with Rayment and Lyons 3A1. pH-CaCl₂ and pH-H₂O is analysed by IJ pH Sensor in accordance to Rayment and Lyons 4B1 and 4A1 respectively. Exchangeable Potassium, Sodium, Magnesium and Calcium are analysed using NH₄Cl Extraction and Atomic Absorption Spectrometry (AAS) in accordance with Rayment and Lyons 18A1, 15A1, 15A1 and 15A1 respectively. Nitrate and Ammonium are analysed by Colorimetric assay. Phosphate-P is analysed by Colorimetric Assay using method described in Rayment and Lyons 9B1. Carbon is analysed by Leco Induction Furnace method and Organic Matter calculated from the percentage carbon.

* The Carbon includes inorganic carbonates, this has been corrected for when calculating the Organic Matter using the method described in Rayment & Lyons 2011 Method 19A1

INTERPRETATION:

The Electrical Conductivity (EC) is a measure of total salts, as a general rule, sandy soils with an EC below 0.1 will grow salt-sensitive plants, but above an EC of 0.2, many plants may have poor growth.

The soil is Strongly Alkaline, above the ideal range for many plants, at this level of pH plants may have difficulty with the uptake of trace elements iron, manganese, copper and zinc. Nitrogen can also start to become less plant available.

The exchangeable cations are dominated by calcium, with magnesium in a normal range. Exchangeable potassium is proportionately low.

The level of plant available phosphorus is adequate. As a rule 20mg/kg of plant available phosphorus will not limit growth.

Addition of a strong acid indicated that high levels of carbonates were present in the soil, accounting for the alkalinity.

These results reflect our findings for the received sample only.

Tested by: SM, HF, GN, TW

Date: 14/06/2024

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

Summary:

Analyte	Hole 1 0-1000mm		Sample 1 0-150 mm		Sample 2 0-150mm		Sample 3 0-150mm		Unit
	2024_0631		2024_0632		2024_0633		2024_0634		
EC	0.110		0.223		0.387		0.227		mS/cm
pH - CaCl ₂	8.10		7.68		7.72		7.94		-
pH - H ₂ O	9.21		8.49		8.38		8.59		-
Exch K	6.3	0.11%	57.4	0.70%	105	1.01%	54.7	0.62%	mg/kg
Exch Na	51.4	1.46%	34.6	0.71%	72.4	1.18%	30.6	0.59%	mg/kg
Exch Mg	158	8.52%	311	12.10%	510	15.70%	535	19.50%	mg/kg
Exch Ca	2750	89.90%	3650	86.40%	4390	82.10%	3580	79.30%	mg/kg
NO ₃ -N	2.4		9.4		-		18.8		mg/kg
NH ₄ -N	15.2		4.52		-		7		mg/kg
PO ₄ -P	5		17		18		32		mg/kg
Carbon	5.30*		9.04*		11.02*		11.0*		%
OM	<1*		3.37*		5.23*		1.85*		%

SAMPLE LOGS

Hole 1 was dug to a depth of 1m to establish the soil profile of the lot and Samples 1-3 were taken at a depth of 150cm. Sample logs are shown in Table 1 below.

Table 1: Sample Logs

Sample ID	Sample location
Hole 1	50 H 0385923 6422291 (South of Site)
Sample1	50 H 0385923 6422291 (South of Site)
Sample 2	50 H 0385878 6422350 (Middle of Site)
Sample 3	50 H 0385756 6422520 (North of Site)

PARTICLE SIZE DISTRIBUTION

Generally, samples had no gravel. According to PSD testing, results (**Appendix A**) are as expected from field observations, the fines fraction passing a 75 µm sieve ranged from 0.51% to 1.40%, and are higher in the top 150 mm, compared to deeper soils. In all soil types, sands are the main component ranging from 94.77% to 99.31%. The area is originally mapped as Calcareous Silt, M₆ which is dark, greyish brown silt, however the PSD results show sandy soil which can be explained by Calcareous sand, S₁₃ deposited from the Lake or north of the site area.

The area is currently degraded with weeds including cottonbush (*Gomphocarpus fruticosus*) observed to be growing invasively along the site and *Agave americana* located in the central section, presumably where the soil is well-drained. Overall, the site is former grassy pasture of mostly cooch (*Elymus repens*) A weed control program should first be implemented by a qualified environmental weed contractor.

This report is not to be reproduced, except in full, without the approval of Bioscience Pty Ltd.

Treatment of cotton bush is best done by manual removal of mature plants, but as it spreads by profuse airborne seeds, follow up of newly emergent seedlings is best done with glyphosate.

Agave is a deep-rooted weed, so removal requires digging down 60 cm and removing large rhizomes. Any new shoots should also be treated with glyphosate.

If cooch grass from pasture is to be removed to return the field to a natural, pre-pasture state, the herbicide Fusilade will be most efficacious.

Revegetation is best done with species that grow in highly alkaline and high EC soils unless soil is treated prior to revegetation. Some of the native species (Source: Australian Native Plants) are listed below:

- 1) *Acacia convenyi*
- 2) *Anigozanthos* 'Amber Velvet'
- 3) *Agonis flexuosa*
- 4) *Anigozanthos* 'Gold Velvet'
- 5) *Banksia speciosa*
- 6) *Casuarina cunninghamiana*
- 7) *Eremophia maculate*
- 8) *Grevillea preissii*
- 9) *Hakea bucculenta*
- 10) *Hardenbergia violaceae* 'Meema'
- 11) *Lomandra longifolia*
- 12) *Westringia fruticose*

If other species more adapted to neutral to acidic soils are selected, soil pH can be lowered by the application of fine elemental sulphur at 150 g/m², however this may be impractical given the size of the rehabilitation area and will take some months of moderate rainfall for elemental sulphur to oxidise and neutralise. It was noted during the site visit for sample collection, that there are scattered areas of white shell near the soil surface, which is otherwise mostly brown. These more limited areas might be worthwhile neutralising with elemental sulphur.

A question was subsequently raised about the compaction ability of the soil. As PSD reveals soils are mostly fine to medium textured sands, they are not liable to compaction, however, avoid using heavy plant and equipment on the area, particularly when sands are wet. Wide -tyred ATV's and trailers should be used where possible during rehabilitation and weed management.

REFERENCE

Australian native plants (2007-2024) *Well-drained, alkaline, light to heavy* • Australian Native Plants • Plants • 800.701.6517.
Available at: <https://www.australianplants.com/plants.aspx?filter=true&key=soil&value=11> (Accessed: 17 June 2024).



Figure 1: Location of samples

9.2. Appendix 2: 6 Lodge Drive Building Permit

Building permit

Building Act 2011, section 25
Building Regulations 2012, regulation 4, 21

Permit number
1.2024.2272.1

1. Builder details

Builder's name

Mecon Construction

Street address
(provide lot number
where street number
is not known)

Unit no	Street no	Level	Lot no
Street name Unit 3 915 Cockburn Road HENDERSON WA 6166		Street type	Street suffix
Suburb	State	Postcode	Country (if not Australia)

OR

PO Box address

PO Box no Unit 3 915 Cockburn Road HENDERSON WA 6166			
Suburb	State	Postcode	Country (if not Australia)

Registration number or owner-builder
approval number (if applicable)

BC14623

2. Details of building work

Property street
address (provide lot
number where street
number is not known)

Unit no	Street no	Level	Lot no LOT: 31 DP: 425178
Street name 6 Lodge Drive EAST ROCKINGHAM 6168		Street type	Street suffix
Suburb	State	Postcode	

Nature of the building work

New Building

Stage(s) of work

Whole

BCA class of the building

Main BCA class
8Secondary BCA class (for multi-purpose
buildings)
7b

Use(s) of the building

Tyre recycling facility

Each restriction on use (if applicable)

Estimated value of
building work (as
determined by permit)

\$15,000,000.00

3. Applicable certificate of design compliance

Certificate of design compliance issued by:

Building surveying contractor/public authority's name	TESG Building Surveyors	
Phone/fax	Phone no	Fax
Email address	jonathan@tesg.com.au	Date 02-09-2024

4. Permit details

All building work permitted by this permit:

1. Must be carried out in accordance with the plans and specifications specified in the applicable certificate of design compliance for this building permit.
2. Must be carried out in accordance with any conditions set out below:

Conditions

An owner or occupier of a building must not occupy or use, or permit the occupation or use of, the building unless an occupancy permit or a temporary occupancy permit is in effect for the building.
Note: Penalties (first offence \$50,000) may apply for contravening Section 41 of the Building Act 2011.

3. Must be inspected and tested as prescribed under section 36(2)(a) of the *Building Act 2011* (refer to the certificate of design compliance for the applicable list of inspections and tests that are to be listed here):

Inspections and tests

Fire hose reel system required under EP1.1 and EP1.5	On completion of the installation of the system
Fire hydrant system required under EP1.3 and EP1.5	On completion of the installation of the system
Automatic fire suppression system required under EP1.4	On completion of the installation of the system
Fire detection, warning, control and intercom systems required under EP2.1 and EP2.2	On completion of the installation of the system

4. A permit granted to do one or more stages of building work does not automatically entitle a person to be granted a further building permit for any other stage of the building work.
5. This permit is valid for two years from the date of this permit **OR** valid until

Date

Issuing officerName
Erica KingJob title
Delegated Officer

Signature

Date
3-10-2024**Permit authority**

City of Rockingham

9.3. Appendix 3: Revegetation Services Agreement



JACKSON McDONALD
MULTI-SECTOR LAW

Revegetation Services Agreement

Hamersley 1 WA Pty Ltd ATF Hamersley Sub Trust
ACN 650 256 616

Company

and

Natural Area Holdings Pty Ltd
ACN 126 093 356

Service Provider

Jackson McDonald
Lawyers
Whadjuk Noongar Boodja
225 St Georges Terrace
Perth WA 6000

t: +61 8 9426 6611
f: +61 8 9321 2002
w: www.jacmac.com.au

Contact: Isla McRobbie
Reference: 7169174

EZP 3469-8334-7501

Revegetation Services Agreement for the provision of revegetation Services at Tuart Woodlands Threatened Ecological Community

Date

2025

Parties

Company **Hamersley 1 WA Pty Ltd** (ACN 650 256 616) trading as **ATF Hamersley Sub Trust** (ABN 81 176 233 525) of Level 6, 1008 Hay Street, Perth

Service Provider **Natural Area Holdings Pty Ltd** (ACN 126 093 356) of 1/164 Barrington Street, Bibra Lake WA

Recitals

- A. The Company:
- (i) operates a property development business trading as Realside Ovest;
 - (ii) is the registered proprietor of Lot 12 and Lot 13 on Deposited Plan 23754, East Rockingham (the **Land**); and
 - (iii) has obtained approval from the Department of Planning, Lands and Heritage (among other State instrumentalities) to commercially develop, the Land.
- B. On 20 April 2022, to facilitate its development of the Land, the Company applied to the Department of Water and Environment Regulation (WA) (**DWER**) for a vegetation clearing permit.
- C. DWER approved the Company's application and issued the vegetation clearing Permit subject to the conditions therein.
- D. To counterbalance the Company's clearing of native vegetation from the Land, and as a condition of the Permit, the Company must revegetate a prescribed part of the Site in accordance with the Revegetation Management Plan (**Project**).
- E. The Company wishes to engage the Service Provider to provide the Services at the Site.
- F. The Service Provider has agreed to provide the Services to the Company on the terms set out in this Agreement.

Terms and Conditions

1. Definitions and interpretation

1.1 Definitions

Additional Services means the additional works set out in Table 3 of the Quotation.

Authorised Person means the Service Provider's employees, contractors and sub-contractors.

Business Day means a day, which is not a Saturday, Sunday, public holiday or bank holiday in the city of Perth, Western Australia.

Commencement Date means the date of execution of this Agreement.

Company means the entity defined as such in the Form of Agreement.

Company's Objectives means the Company's Objectives for the Project which are to:

- (a) revegetate and rehabilitate the Site so that it is Self-Sustaining by the end of the Term;
- (b) achieve and satisfy the Completion criteria as set out in the Quotation and the Revegetation Management Plan (including Weed Completion criteria).

Contamination means, subject to any Legislative Requirement that may provide otherwise, in relation to the Site or surrounding areas, a substance present in or on that land and any water thereon just stated, above background concentrations that presents, or has the potential to present, a risk of harm to human health, the environment or any environmental value.

Corporations Act means the *Corporations Act 2001* (Cth).

Government Agency means a governmental, semi-governmental, administrative, fiscal, judicial or quasi-judicial body, department, commission, authority, tribunal, agency or entity.

GST means the meaning given to that term in the GST Act.

GST Act means *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

Insolvency Event means:

- (a) if an individual party becomes bankrupt;
- (b) if a party in the ordinary course of business:
 - (i) ceases to pay a creditor;
 - (ii) is unable to pay a creditor;
 - (iii) subject to a bona fide dispute between a party and its creditor about liability for a debt, announces its intention not to pay a creditor;
- (c) if a receiver, receiver and manager, administrator, liquidator or similar officer is appointed to a party or its assets;
- (d) if a party enters into a scheme or arrangement, compromise or composition with a class of creditors;

- (e) if a party resolves to enter into a scheme or arrangement, compromise or composition with a class of creditors;
- (f) if a resolution is passed or an application to a court is made for the winding up, dissolution, official management or administration of a party;
- (g) a party assigns or attempts to assign property for the benefit of its creditors; or
- (h) an event occurs, which has a substantially similar effect in law to any of the above clauses (a) to (g).

Intellectual Property Rights means any statutory and other proprietary right in respect of inventions, innovations, patents, utility models, designs, circuit layouts, mask rights, copyright (including future copyright), confidential information, trade secrets, know-how, trademarks and any other right in respect of intellectual property.

Legislative Requirement includes:

- (a) Acts, Ordinances, regulations, by-laws, orders, awards and proclamations of the jurisdiction where Services or the particular part thereof is being carried out;
- (b) certificates, licences, consents, permits, approvals and requirements of any organisations, authorities or Government Agencies having jurisdiction in connection with the carrying out of Services;
- (c) standards, codes and guidelines applicable to the Services;
- (d) any fees or charges payable in connection with (a), (b) or (c); and
- (e) requirements of persons acting in the exercise of statutory powers enabling them to give directions affecting the Services.

Loss means any loss, damage, cost, liability charge or expense of any kind and however arising (including as a result of any claim), including penalties, fines and interest and including any that are prospective or contingent and the amount of which for the time being are not ascertained or ascertainable.

Notice of Dispute has the meaning at clause 21.1.

Permit means the permit attached at Annexure A.

Permit Conditions mean the conditions found in the Permit.

Quotation means the quotation attached at Annexure B.

Related Entity has the meaning given to it in the *Corporations Act 2001* (Cth).

Revegetation Management Plan means the revegetation management plan attached at Annexure C.

Schedule of Works means the schedule of works referred to in Table 4 of the Quotation.

Security Interest means a security interest pursuant to *Personal Property Securities Act* (Cth).

Self-Sustaining means the ongoing sustenance of the revegetated flora planted at the Site in accordance with the Revegetation Management Plan such that that flora does not need any manual or human maintenance, intervention or care and can survive solely from the natural elements available at the Site and its immediate surrounds.

Service Provider means the party defined as such in the Form of Agreement.

Services means the services to be provided by the Service Provider in accordance with this Agreement, the Permit and the Revegetation Management Plan, as described in the Quotation and including the Schedule of Works.

Service Fees means the fees that the Company agrees to pay to the Service Provider for the Services in accordance with this Agreement, as set out in Table 2 and Table 3 (if applicable) of the Quotation.

Site means Rockingham Lakes Regional Park (Bush Forever Site No.356).

Term means the period of 5 years commencing on the Commencement Date.

1.2 Interpretation

In this Agreement, a heading is for convenience only and does not affect interpretation and unless inconsistent with the context:

- (a) the singular includes the plural and vice versa;
- (b) a reference to a gender includes any gender;
- (c) the word *includes* is not a word of limitation and does not restrict the interpretation of a word or phrase in this Agreement;
- (d) a reference to a document, includes a variation or replacement of it;
- (e) a reference to a statute includes its subordinate legislation and a modification or re-enactment of either;
- (f) a reference to a clause, sub-clause, schedule or annexure is a reference to a clause, sub-clause, schedule or annexure of this Agreement;
- (g) a reference to a person, includes a reference to:
 - (i) an individual, a body corporate, a trust, a partnership, a joint venture an unincorporated body or other entity, whether or not it is a separate legal entity;
 - (ii) if the person is an individual, the person's personal representatives and assigns;
 - (iii) if the person is not an individual, the person's successors and assigns; and
 - (iv) a person, who novates this Agreement;
- (h) a reference to a thing, including a right, is a reference to either the whole thing or a part of the thing;
- (i) if the date on which a thing must be done is not a Business Day, then that thing must be done on the next Business Day;

- (j) a reference to a day is a reference to the period, which starts at midnight and ends 24 hours later; and
- (k) if a period of time runs from a given date, act or event, then the time is calculated exclusive of the date, act or event.

1.3 Order of Precedence

In the event of any inconsistency between the documents forming this Agreement, the following order of precedence shall apply:

- (a) this Agreement;
- (b) the Revegetation Management Plan;
- (c) the Permit;
- (d) the Service Provider's Quotation.

2. Appointment of Service Provider

In consideration of payment of the Service Fees, the Service Provider must perform the Services for the Company for the duration of the Term and in accordance with this Agreement.

3. Term

This Agreement commences on the Commencement Date and continues until:

- (a) expiry of the Term; or
- (b) on an earlier date if terminated at law or under this Agreement.

4. Service Provider's Obligations

4.1 Provide Services

- (a) The Service Provider must:
 - (i) provide the Services in accordance with the terms of this Agreement in order to achieve the Company's Objectives;
 - (ii) provide the Services with due expedition and without delay;
 - (iii) provide the labour, materials, tube stock, infill planting, equipment and tools necessary to provide the Services and to the extent any materials, plant or equipment are provided by the Service Provider in connection with any of the Services, ensure such materials, tube stock, infill planting, plant or equipment:
 - A. will be fit for the purpose for which they are supplied;
 - B. will be free of any material defects (and in the case of tube stock and infill planting, free of any disease); and
 - C. will have been and continue to be properly maintained by the Service Provider in accordance with prudent business practice;
 - (iv) properly maintain materials, plant or equipment provided by the Company for the provision of the Services, at the Service Provider's cost;

- (v) perform, and ensure each Authorised Person performs, the Services to the standard of professional care, skill, expertise, judgment and diligence expected of a competent service provider experienced in providing services, which are similar to the Services;
 - (vi) subject to subclause 4.1(b), remove all waste and waste product from the Site regularly, and ensure that the applicable area of the Site and the immediate work area are kept clean and tidy at all times;
 - (vii) provide a safe work environment;
 - (viii) not affix any signs on or in the Site, without the written consent of the Company, acting reasonably;
 - (ix) not mortgage, charge, encumber or grant any Security Interest in the Service Provider's interest in this Agreement nor any of its fixtures, fittings or improvements in the Site; and
 - (x) not obstruct or interfere with any entrance to or area within the Site.
- (b) The Service Provider shall not be obliged to remove waste which has been dumped by a third party on to the Site, where such item of waste is greater than 1m³. The Company may direct the Service Provider to remove such waste in which case the provisions of clause 8 (Variation to the Services) applies.

4.2 Service Provider's Warranties

- (a) In addition to any warranties required at law, the Service Provider agrees, represents and warrants that:
 - (i) at all times it will comply with the Permit Conditions in undertaking and providing the Services;
 - (ii) it has examined and made its own assessment of all information made available in writing by the Company or otherwise obtained by the Service Provider necessary for the Service Provider to undertake the Services, including but not limited to:
 - (A) the Revegetation Management Plan;
 - (B) the Permit;
 - (C) the Schedule of Works; and
 - (D) this Agreement;
 - (iii) it has examined all information relevant to the risks, contingencies and other circumstances having an effect on the Service Fees and obtainable by the making of reasonable enquiries;
 - (iv) it has inspected the Site and its surroundings and conducted all reasonable, non-invasive investigations and enquiries;
 - (v) it will perform the Services and be responsible for the revegetation and rehabilitation of the whole of the Site in accordance with the Revegetation

Management Plan, notwithstanding that the Services Provider will only test certain identified areas of the overall Site;

- (vi) it has conducted soil testing and is aware of the soil conditions on the Site and has made all appropriate allowances for organic plant selection and methodology appropriate for the soil conditions on Site.
- #### 5. Company's obligations
- (a) The Company must:
 - (i) give the Service Provider access to sufficient of the Site to allow the Service Provider to perform its obligations under this Agreement;
 - (ii) pay the Service Provider in accordance with this Agreement; and
 - (iii) comply with its obligations under this Agreement.
 - (b) Where the Company provides fencing to the Site, the Service Provider acknowledges and agrees that provision of the fencing by the Company shall not impact the warranties provided by the Service Provider or otherwise impact on the ability of the Service Provider to perform its obligations under the Agreement.

6. Legal compliance

- (a) The Service Provider must in all respects, and in undertaking the Services, comply with:
 - (i) all applicable Legislative Requirements, including safety regulations;
 - (ii) any applicable technical codes, regulations and standards, including but not limited to applicable Australian Standards;
 - (iii) the standards or requirements of any applicable statutory body or Government Agency; and
 - (iv) the Permit Conditions and the relevant conditions of the Revegetation Management Plan.
- (b) The Service Provider must at all times, hold the approvals, licences, permits, visas, and registrations required to carry out the Services.

7. Policy, Procedures and Conduct

The Service Provider must:

- (a) comply with the Company's written policies and procedures as provided to the Service Provider in writing from time to time, including in relation to the Site;
- (b) act honestly and conscientiously in providing the Services;
- (c) immediately notify the Company of any accident, injury or dangerous circumstance relating to the provision of the Services on Site; and
- (d) not do or permit to be done on the Site anything which in the reasonable opinion of the Company may become a nuisance or disturbance, obstruction

or cause of damage whether to the Company or use the Site in any noxious or offensive manner.

8. Variations to the Services

- (a) The Service Provider shall not vary the Services other than pursuant to a written direction by the Company stating that it is a Variation Order. Compliance with this clause is a condition precedent to any entitlement to payment for the varied Services.
- (b) Where Additional Services are identified in the Agreement, unless expressly stated otherwise in the Agreement, such additional services shall not be carried out unless confirmed in writing by the Company.
- (c) The Company may by written notice from time to time direct the Service Provider to make reasonable variations to the Services (including additions, omissions or reductions), but such variations must be of a character and extent contemplated under this Agreement or otherwise as agreed.
- (d) The Service Provider must perform the variations within any time instructed by the Company or, otherwise, within any reasonable time.
- (e) Where the Service Provider considers that it has been directed to vary the Services, but such direction is not in writing and/or is not stated to be a Variation Order, the Service Provider must notify the Company and seek a direction as to how to proceed.
- (f) The Company will price the variation in the following order of precedence:
 - (i) as agreed by the parties;
 - (ii) applicable rates and prices set out in this Agreement (if any);
 - (iii) reasonable rates and prices (which shall include a reasonable allowance for profit and overheads).
- (g) The amount of a variation shall be added to or deducted from the Service Fees as applicable.
- (h) The Service Provider may request a change to the Services, and the Company may, at its discretion, approve such request for a variation which approval may be subject to conditions.
- (i) The Company may notify the Service Provider in writing of a proposed variation. Following receipt of such notice, the Service Provider must within 7 Business Days notify the Company if such variation can be effected and the estimated time and cost impact of such variation.
- (j) In the event that the Company varies the Services by taking part of the Services out of the Service Provider's hands, the Company will be entitled to have those Services performed by a third party. The Service Provider shall not be entitled to any payment or compensation arising out of or in connection with the removal of Services under this Agreement not yet performed by the Service Provider.
- (k) Where the Service Provider determines a need for a watering event (as defined as Additional Services),

the Service Provider shall notify the Company in writing. The Company shall respond within 7 Business Days. If no response is received within this timeframe, the request shall be deemed approved and the Service Provider should respond. The warranties provided by the Service Provider shall remain unaffected by any failure of the Service Provider to provide such watering event.

9A Completion

- (a) Not earlier than one month prior to expiry of the Term, the Company will engage the services of an external third party consultant (PGV Environmental or similar consultant, selection of which shall be by the Principal acting reasonably) (**Completion Consultant**) to inspect the Site for the purpose of assessing whether the Service Provider has achieved the Completion Criteria.
- (b) The Completion Consultant shall notify the Company in writing confirming whether the Completion Consultant considers that the Completion Criteria have been satisfied, and if not achieved, identify why.
- (c) Where the unsatisfied Completion Criteria relate to the presence of weeds, the Service Provider must remove the weeds at its own cost.
- (d) Where the unsatisfied Completion Criteria relates to the survival, diversity or presence of sufficient vegetation and plant stock, the Service Provider must, at its own cost, provide the additional or replacement plants using replacement stock of an appropriate size and maturity so as to match the general size and maturity of existing plants on Site, and provide the Services as set out in this Contract, for a period of a further [12 months] after replanting, with such extended Services limited only to the replaces stock.
- (e) For the purpose of this clause, "Completion Criteria" means:
 - (i) the criteria set out on page 9 of the Quotation; and
 - (ii) in respect of the Tuart trees required as part of the above Completion criteria, tree stock of a reasonably acceptable size and maturity having regard to the Term of this Agreement (for the avoidance of doubt, not recently planted Tuart seedlings).

9. Defective Services

Subject to this Agreement, if the Company is not satisfied with the standard or quality of the Services, the Service Provider must, immediately on notice from the Company:

- (a) rectify the Services at its cost; or
- (b) at the discretion of the Company, reimburse the Company for the cost of rectifying the Services, or for any Loss suffered by the Company in connection with the defective Services.
- (c) In the event of plant mortality, the Service Provider must replace the plants using replacement stock of an appropriate size and maturity so as to match the general size and maturity of existing plants on Site

that have not been and have not required replacement during the Term.

10. Comply with directions

The Service Provider must comply with a lawful direction that the Company gives in relation to the Services.

10.1 Subcontracting

The Service Provider must not subcontract the whole or part of the provision of the Services to any person without the prior written consent of the Company.

10.2 Authorised Person

- (a) The Service Provider must ensure that each Authorised Person:
 - (i) is qualified for the position which they occupy, suitable, and competent to perform the part of the Services that the Authorised Person is retained to perform;
 - (ii) holds the necessary permits, licences, clearances and approvals; and
 - (iii) complies with all applicable Legislative Requirements and the Service Provider's policies and standards.
- (b) The Service Provider acknowledges and agrees that the Service Fees have been calculated on the basis that the Company is not required to pay workers' compensation, payroll tax or any other statutory charges or entitlements, in respect of an Authorised Person.
- (c) If the Company is required by law to pay workers' compensation, payroll tax, or any other statutory charges or entitlements, in respect of an Authorised Person:
 - (i) the Company can adjust the Service Fees in respect of these liabilities; and
 - (ii) the parties acknowledge that this fact does not give rise to an employment relationship between the Company and an Authorised Person.

11. Reporting and Records

11.1 Reporting

The Service Provider must prepare and submit all reports as required under the Agreement, including as set out in the Quotation, the Revegetation Management Plan and the Permit. Reports must be submitted in accordance with the timelines specified in the Agreement. The Service Provider shall ensure that all reports are comprehensive and accurately reflect the progress and status of the revegetation efforts.

11.2 Access to records

The Service Provider shall upon reasonable notice from the Company provide to the Company or its authorised representative access to the books and records relating to this Agreement and the provision of the Services.

12. Fees

12.1 Payment of Service Fees

- (a) The Company must pay the Service Fees to the Service Provider as set out in this Agreement. Subject to clause 8(k), the Service Provider is only entitled to payment for Additional Services if approved in writing by the Company prior to the cost being incurred.
- (b) The Service Provider may give the Company a claim for payment at the end of each month for the portion of the Service Fees that is payable for Services provided in the prior period.
- (c) The payment claim must:
 - (i) in respect of the Services:
 - (A) identify the Services to which the payment claim relates;
 - (B) separately identify each Variation;
 - (C) set out the amount of the Service Fees claimed, and how that amount was determined;
 - (ii) in respect of the Additional Services:
 - (A) identify each Additional Service claimed;
 - (B) state the amount of the Additional Service claimed;
 - (iii) provide evidence to support the Service Fees claimed including time sheets or other records to show the hours spent and by whom; and
 - (iv) be in the form of a valid tax invoice.
- (d) The Company must either:
 - (i) pay the whole amount claimed in the payment claim; or
 - (ii) notify the Contractor of any reasons for non-payment (or payment of any lesser amount than the full amount claimed).
- (e) The Company must pay the amount specified in clause 12.1(d)(i) or 12.1(d)(ii) within 30 calendar days after receipt of the payment claim under this clause 12.1.
- (f) Payment by the Company is on account and is not evidence of the value of work completed, an admission of liability nor evidence that the Services have been executed satisfactorily.
- (g) The Company shall be entitled to set off and deduct from money due to the Service Provider any money due from the Service Provider to the Company under or in connection with this Agreement.

12.2 Disputed invoices

- (a) If a party disputes an amount shown on a Tax Invoice, it must:
 - (i) notify the other party within 10 Business Days of receipt of the Tax Invoice that it disputes the invoice; and

- (ii) pay the amount not in dispute.

- (b) Any dispute that arises as between the Company and the Service Provider shall be dealt with in accordance with clause 21.

13. GST

13.1 Definitions

Any reference in this clause to terms defined or used in the GST law is, unless the context indicates otherwise, a reference to that term as defined or used in the GST law.

13.2 GST Treatment

- (a) The Service Fees do not include an amount for GST.
- (b) Subject to this Agreement, any other amount payable under this Agreement does not include an amount for GST.
- (c) GST is payable on a taxable supply made under this Agreement.

13.3 Recovery of GST

Subject to this clause, if a supply under this Agreement is subject to GST, then the recipient must pay to the supplier an additional amount equal to:

- (a) the GST exclusive consideration
- (b) *multiplied by* the GST rate.

13.4 Time of payment

- (a) Subject to this clause, the recipient must pay the additional amount at the same time as it pays the consideration for the supply.
- (b) The recipient is obliged to pay the additional amount only after it receives a Tax Invoice from the supplier.

13.5 Adjustment events

If there is an adjustment event that arises in relation to a supply made under this Agreement, then an adjustment note must be provided by the supplier in accordance with the GST law and any payment required to be made by one party to the other as a result of the adjustment event must be provided by the applicable party at the time the adjustment note is provided.

13.6 Reimbursement

- (a) If a party is entitled to be reimbursed or indemnified under this Agreement, then the amount to be reimbursed or indemnified does not include an amount for GST for which the party is entitled to an input tax credit.
- (b) The supplier must issue a tax invoice to the recipient for a taxable supply.

13.7 Review and Adjustment

A review or adjustment of consideration payable for a taxable supply must take into account:

- (a) that this clause requires an adjustment of that consideration; and
- (b) an adjustment to that consideration which has already been or is required to be determined, under this clause.

14. Intellectual Property

- (a) The Intellectual Property Rights in connection with the Services created during the Term (**Agreement IP**) vest in the Company on creation
- (b) The Company grants a non-exclusive, non-transferable, revocable and royalty free licence to the Service Provider to use the Agreement IP:
 - (i) for the Term only; and
 - (ii) for the sole purpose of providing the Services.
- (c) The Service Provider hereby grants to the Company a perpetual, irrevocable, non-exclusive, royalty-free, transferable licence (with the right to sub-license) to use all Intellectual Property Rights (whether owned by the Service Provider or not) which is used or developed by the Service Provider in connection with the Services.

15. Confidentiality

- (a) The Service Provider shall keep the terms of this Agreement and the materials provided and/or generated under it confidential, and shall only disclose as required by law and to its officers, employees, agents and representatives as necessary to enable the Service Provider to perform this Agreement.
- (b) This clause survives the termination of this Agreement.

16. Indemnity and liability

- (a) The Service Provider indemnifies the Company, its officers, employees, agents and contractors against any Loss suffered or incurred by the Company arising out of or in connection with:
 - (i) any breach by the Service Provider of this Agreement or its obligations under this Agreement; and
 - (ii) any loss of or damage to property of the Company; and
 - (iii) any claims by any person against the Company in respect of personal injury or death or disease or illness or loss of or damage to property; and
 - (iv) the Service Provider's or an Authorised Person's acts or omissions:
 - (A) relating to this Agreement; or
 - (B) relating to the performance or non-performance of the Services.
- (b) This indemnity does not apply to the extent that the Company's or its representatives' negligent acts or omissions directly caused or contributed to the Loss.
- (c) The Service Provider shall be liable for, and shall indemnify the Company for any damage or Contamination to the Site caused by the Service Provider or any Authorised Person. The Service Provider shall remedy any damage where directed to do so by the Company. Where the Service Provider fails to remedy the damage, the Company

may remedy the damage and the costs incurred in doing so shall be a debt due and payable by the Service Provider to the Company.

17. Insurance

- (a) Before commencing the Services, the Service Provider must effect and maintain the following insurances:
 - (i) a general public liability insurance policy in the amount of at least \$10 million for any one claim or series of related claims arising from any one occurrence:
 - (A) covering liability for loss of or damage to property; and
 - (B) covering liability for the death of or injury to a person, arising out of or in connection with the provision of the Services; and
 - (ii) a workers' compensation insurance policy in the form and for the amounts required under the law, including covering liability under statute and common law for death or injury to an employee (if any) of the Service Provider; and
 - (iii) third party liability insurance covering all liabilities in respect of any injury to, or death of, any person or any loss, damage or destruction to any property arising from the use of such motor vehicles and where the motor vehicles are owned by others, the Service Provider must ensure that the owner of the vehicle effects and maintains the insurances referred to in this subclause.
- (b) The Service Provider must ensure that its insurance policies are:
 - (i) on similar terms to a commercial, prudent policy, commonly used in the Service Provider's industry;
 - (ii) held with reputable and solvent insurers which carry on business in Australia under the authority of the Australian Prudential Regulation Authority; and
 - (iii) maintained during the Term.
- (c) The Service Provider must on request, give the Company a certificate of currency, any related schedules and policy wording for each insurance policy it holds.

18. Suspension

- (a) The Company may direct the Service Provider to suspend the whole or part of the performance of some or all of the Services for any reason. Where the suspension arises due to an act, default or omission of the Service Provider or an Authorised Person, then the Service Provider shall not be entitled to its costs arising out of or in connection with the suspension.
- (b) The Service Provider must take all reasonable steps to mitigate any costs incurred during or as a consequence of the suspension, or when

recommencing the supply or performance of some or all of the Services after a period of suspension.

- (c) The Company may notify the Service Provider to recommence the whole or relevant part of the performance of some or all of the Services and the Service Provider must do so within a reasonable time after the notice.

19. Default and Termination

19.1 Termination for convenience

- (a) The Company may in its absolute discretion and for its convenience terminate this Agreement for any reason by giving one (1) month's written notice to the Service Provider.
- (b) Where this Agreement is terminated pursuant to clause 19.1(a):
 - (i) the Company shall pay the amount owing to the Service Provider as at the effective date of termination, which amount shall be calculated as if the Service Provider was entitled to, and did, submit a claim for payment for Services rendered on the effective date of termination;
 - (ii) the Company shall pay the Service Provider its reasonable costs actually incurred in anticipation of providing the Services for the Term;
 - (iii) the Service Provider shall pay any amount owing to the Company as at the date of termination as if the Company was entitled to and did, submit for payment on the claim the date of termination, and the Company shall be entitled to set-off such amount against monies otherwise owing to the Service Provider;
 - (iv) payment pursuant to this clause 19.1(b) is the Service Provider's sole entitlement to compensation arising out of or in connection with the termination under clause 19.1(a) and the Service Provider shall not be entitled to any further payment or compensation arising from such termination;
 - (v) the Company may engage another service provider to carry out the Services.

19.2 Termination

- (a) If a party is in breach of an obligation under this Agreement, the non-defaulting party may give notice to the defaulting party which requires the defaulting party to remedy the breach within 10 Business Days.
- (b) The non-defaulting party may by further notice to the defaulting party terminate this Agreement if the defaulting party has not:
 - (i) remedied the breach within that 10 Business Day period; or
 - (ii) made arrangements within that 10 Business Day period, which reasonably satisfy the non-defaulting party in respect of the breach.

- (c) The non-defaulting party's right to terminate is without prejudice to any other rights or remedies it may have in respect of the default.

19.3 Insolvency

- (a) A party may terminate this Agreement immediately by written notice to the other party if the other party is subject to an Insolvency Event.
- (b) The rights and remedies given by this clause are additional to any other rights and remedies and are subject to any restrictions on their enforcement under Part 5.1, Part 5.2, or Division 17 of Part 5.3A *Corporations Act 2001* (Cth). They may be exercised notwithstanding that there has been no breach of contract.

19.4 Accrued Rights

Subject to clause 19.1(b), termination under this clause 19 is without prejudice to any rights which have accrued to a party before the date of termination.

20. Notices

20.1 Delivery

- (a) Unless otherwise agreed, the parties must communicate by written notice addressed as follows (or as otherwise notified by that party to each other from time to time):
- (i) Company:
- Name: Hamersley 1 WA Pty Ltd trading as ATF Hamersley Sub Trust
- Address: Level 6/1008 Hay St, Perth WA 6000
- Email: Julie.drago@ovest.net.au
- (ii) Service Provider:
- Name: Natural Area Holdings Pty Ltd
- Address: 57 Boulder Rd Malaga WA 6090
- Email: admin@naturalarea.com.au
- (b) A party may vary its address by sending a written notice to the other party and a party must use the new address from the time that it receives the notice.
- (c) To deliver a notice, a party must hand deliver, deliver by registered post requiring signatory acceptance or email it to the other party's address.
- (d) Notices in connection with clause 18, 19 or 21 must not be sent by email.

20.2 Effect and receipt

- (a) Unless a later time is specified in a notice, a notice takes effect at the time of receipt.
- (b) Subject to a negative notification, a notice sent by email is received when the sender receives a delivery status notification from the recipient's email server.
- (c) An email is received at the receiver's email address supplied under this clause.

21. Dispute resolution

21.1 Notice of Dispute

If a difference or dispute between the parties arises in connection with the subject matter of this Agreement, then, within 14 days of the dispute arising, either party shall give the other a written notice adequately identifying and providing details of the dispute (**Notice of Dispute**).

Notwithstanding the existence of a Dispute, the parties shall, subject to clause 21 continue to perform their obligations under this Agreement.

21.2 Conference

- (a) Within 14 days after receiving a Notice of Dispute, the parties shall confer at least once to try and resolve the dispute. At every such conference, each party shall be represented by a person having authority to agree to such resolution or methods. All aspects of every such conference, except the fact of occurrence, shall be privileged.
- (b) If the dispute has not been resolved within 28 days of service of the Notice of Dispute, the parties may refer the dispute to litigation.
- (c) Compliance with clause 21.2(a) will be a condition precedent to a party's entitlement to commence legal proceedings in relation to any dispute arising out of or in connection with this Agreement.

22. Work Health and Safety

- (a) The Service Provider must:
- (i) comply with all applicable WHS Requirements; and
- (ii) ensure the health and safety of all persons on the Site at all times.
- (b) The Service Provider acknowledges that the Principal is relying on the Service Provider's skill and experience in the performance of the Services to perform the Agreement safely and in accordance with the WHS Requirements.
- (c) The Service Provider must ensure that the Authorised Personnel comply with all WHS Requirements in connection with the carrying out of the Services and:
- (i) comply with all applicable health, safety and environment regulations, codes of practice and standards;
- (ii) comply with any conditions issued by the Company relating to safe working practices and environmental protection, including any occupational health and safety procedures;
- (iii) have the required safety equipment to perform the Works, including all personal protective equipment and clothing;
- (iv) obey all Site rules, signs, policies and instructions pertaining to the Site; and
- (v) must keep the Site clean and regularly remove rubbish and waste off Site. The Service Provider's responsible work area is

to be left in a clean and safe state at the completion of each working day.

- (d) Without limiting the Service Provider's obligations under the WHS Requirements, if a Notifiable Incident (as defined in the WHS Act) occurs in relation to any work performed under this Contract, the Service Provider shall immediately inform the Company and provide the Company with all information and documentation reasonably required by the Company.

23. General clauses

23.1 Governing law and jurisdiction

The law of Western Australia governs this Agreement. The parties submit to the exclusive jurisdiction of the courts of Western Australia, the Federal Circuit Court and the Federal Court of Australia.

23.2 Variations to this Agreement

The parties can vary this Agreement only if the variation is in writing and signed by each party.

23.3 Severance

If a provision of this Agreement is invalid, illegal or unenforceable, then to the extent of the invalidity, illegality or unenforceability, that provision must be ignored in the interpretation of this Agreement. The remaining provisions of this Agreement remain in full force and effect.

23.4 No waiver

- (a) A party, granting a waiver of a right under this Agreement, must give written notice of that waiver to the party, which benefits from the waiver.
- (b) A party's failure, partial failure or delay in exercising a right relating to this Agreement, is not a waiver of that right.
- (c) A party may not claim that another party's delay or failure to exercise a right relating to this Agreement:
 - (i) constitutes a waiver of that right; or
 - (ii) is a defence to its own action or inaction.
- (d) The parties may not waive or vary this clause.

23.5 Entire agreement

- (a) This Agreement constitutes the entire agreement between the parties and supersedes all previous discussions, undertakings and agreements.
- (b) This Agreement will prevail over any terms and conditions contained in the Service Provider's invoices, purchase orders, or other trade documentation.

23.6 Survival

- (a) Each indemnity survives the performance of obligations relating to this Agreement and the termination of this Agreement.
- (b) To the extent that a party has not satisfied an obligation or it is a continuing obligation, that obligation survives termination.

23.7 Further assurance

Each party must do everything necessary to give full effect to this Agreement.

23.8 Civil Liability Act

To the extent permitted by law, Part 1F of the *Civil Liability Act 2002* (WA) is excluded from operation in relation to any claim under or in relation to this Agreement.

23.9 Legal Relationship

- (a) The Service Provider is an independent contractor of the Company. This agreement does not create a relationship, including a relationship of principal and agent, employer and employee, partnership or joint venture between the parties or the Company and an Authorised Person.
- (b) The Authorised Persons remain under the control of the Service Provider and are not agents or employees of the Company.

23.10 Assignment

- (a) A party must obtain the prior written consent of the other party before it transfers, assigns or novates a right or obligation to a third party.
- (b) Either party may assign or novate its rights or obligations under this Agreement to a Related Entity (**Assignee**) without the consent of the other party, provided that the Assignee executed a deed of covenant under which it covenants in favour of the other parties to be bound by and comply with the terms of this Agreement.

23.11 Taxes, costs and expenses

Each party must pay its own legal and other costs and expenses in relation to preparation and execution of this Agreement and any related document.

23.12 Counterparts

- (a) The parties may execute this Agreement in any number of counterparts, which taken together constitute one instrument.
- (b) The parties may exchange counterparts by scanning the entire duly executed counterpart and emailing it to the other party.

Executed as an Agreement

Company

Signed as an agreement by Hamersley 1 WA Pty
Ltd (ACN 650 256 616) pursuant to s127 of the
Corporations Act 2001 (Cth):)

Signature of director

Linda Rudd

Print name

Signature of director/secretary

JULIE DRAGO

Print name

Service Provider

Signed as an agreement by Natural Area Holdings
Pty Ltd (ACN 126 093 356) pursuant to s127 of the
Corporations Act 2001 (Cth):)

Signature of director

LUKE JOHN SUMMERS

Print name

N/A

Signature of director/secretary

Print name

**ANNEXURE A
PERMIT**



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 9710/1
File Number: DWERVT10054
Duration of Permit: From 1 September 2023 to 1 September 2035

ADVICE NOTE

The funds referred to in condition 5 of this permit are intended for contributing towards the purchase of 0.26 hectares of native vegetation within the Shire of Waroona that is representative wetland dependent native vegetation in very good to excellent condition.

PERMIT HOLDER

Hamersley 1 WA Pty Ltd

LAND ON WHICH CLEARING IS TO BE DONE

Lot 12 on Deposited Plan 23754, East Rockingham
Lot 13 on Deposited Plan 23754, East Rockingham

AUTHORISED ACTIVITY

The permit holder must not clear more than 3.961 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. Period during which clearing is authorised

The permit holder must not clear any native vegetation after 1 September 2028.

2. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the clearing of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

3. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known dieback or weed-affected soil, mulch, fill, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

4. Directional clearing

The permit holder must conduct clearing activities in a slow, progressive manner from east to west and towards adjacent *native vegetation*, to allow fauna to move into adjacent *native vegetation* ahead of the clearing activity.

5. Offset – monetary contributions to the Offsets Fund

Prior to undertaking any clearing authorised under this permit, the permit holder must provide documentary evidence to the CEO that funding of \$3,193 has been transferred to the Department of Water and Environmental Regulation for the purpose of establishing or maintaining native vegetation as an environmental offset for the clearing activities authorised under this permit.

6. Offset – Revegetation and Revegetation

- (a) The permit holder must within 24 months of the commencement of *clearing* authorised under this permit, and no later than 1 September 2025, *revegetate* and *rehabilitate*, 3.5 hectares of native vegetation within the area cross-hatched red on Figure 2 of Schedule 1 with:
 - (i) flora species which provide suitable foraging and breeding habitat for Carnaby's cockatoo (*Zanda lateriosis*); and
 - (ii) flora species of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain Threatened Ecological Community (TEC) as described in the *Approved Conservation Advice* for this TEC.
- (b) The permit holder must, *revegetate* and *rehabilitate* the area cross-hatched red on Figure 2 of Schedule 1 by implementing and adhering to the 'Lot 333 Mandurah Road Warnbro Tuart TEC Revegetation Management Plan' dated 16 May 2023 (by PGV Environmental), and including but not limited to the following actions:
 - (i) ripping the soil prior to planting
 - (ii) deliberately *planting* tube stock;
 - (iii) ensuring only *local provenance* propagating material are used to *revegetate* and *rehabilitate* the area;
 - (iv) establish a minimum of five 10 x 10 metre quadrat monitoring sites;
 - (v) water planted vegetation between November and March for the first two years post planting, as required;

- (vi) undertake *weed* control activities prior to *planting*, and bi-annually thereafter for ten years until the completion criteria, as listed in Table 1, have been met;
- (vii) fencing of the offset site prior to *rehabilitation* and *revegetation* commencing and undertake regular monitoring of the fence for the entire duration of this permit; and
- (viii) achieve the following *completion criteria* listed in Table 1 after the ten-year monitoring period for areas *revegetated* and *rehabilitated* under condition 6 of this permit:

Table 1: completion criteria

Aspect	Completion criteria	Monitoring
1) Survival Rate	Survival on average of at least 1.6 Tuart trees per 100m ² .	The number of surviving plants in quadrats to be monitored annually.
2) Species Diversity	At least 12 understory species per 100m ² , across the revegetation area.	The species and number of plants/m ² in quadrats to be monitored annually.
3) Native vegetation coverage	Native vegetation coverage of 80% of the overall vegetation cover or maturing to a cover of 80%.	Measurement of cover in quadrats to be monitored annually
4) Weeds	Maintain grassy weed cover to less than 20% of the overall vegetation cover per 100m² across the revegetation area. No declared pests or Weeds of National Significance (WoNS) to be present within revegetation area. No woody weed species to be present within revegetation area, including: - Cottonbush (<i>Gomphocarpus fruticosus</i>), - Castor Oil Plant (<i>Ricinus communis</i>), and - Pampas Grass (<i>Cortaderia selloana</i>)	Measurement of cover in quadrats to be monitored bi-annually.
5) Floristic communities	Vegetation across the whole revegetation area to be identifiable as Tuart woodland of the Swan Coastal Plain Threatened Ecological Community (TEC) in very high condition according to the <i>Approved Conservation Advice</i> for this TEC.	Statistical analysis of quadrat species data meets the key diagnostic characteristics of relevant ecological/floristic communities (except for the requirement on minimum diameter at breast height of the <i>established</i> Tuart trees)

- (c) The permit holder must undertake remedial actions for areas *revegetated* and *rehabilitated* where monitoring indicates that revegetation has not met the completion criteria, outlined in Table 1 of condition 6(b)(viii), including:
- (i) *revegetate* the area by deliberately *planting* native vegetation that will result in the minimum target in Table 1 of condition 6(b)(viii) and ensuring only *local provenance* propagating material are used; and
 - (ii) undertake further weed control activities.

7. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 2.

Table 2: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings; (b) the date that the area was cleared; (c) the size of the area cleared (in hectares); and (d) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 2; and (e) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 3; and (f) action taken to undertake slow directional clearing in accordance with condition 4. (g) action taken in accordance with condition 5.
2.	In relation to <i>revegetation</i> and <i>rehabilitation</i> pursuant to condition 6	(a) description of the revegetation and rehabilitation activities undertaken; (b) the size of the areas revegetated and rehabilitated (in hectares); (c) the date that revegetation and rehabilitation works began; (d) any remediation works undertaken; (e) a copy of environmental specialist monitoring reports; and (f) the date that completion criteria are considered to be met

8. Reporting

The permit holder must provide to the *CEO* the records required under condition 7 of this permit when requested by the *CEO*.

DEFINITIONS

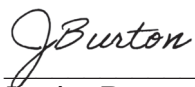
In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
approved conservation advice	means Approved Conservation Advices for the ‘Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain Threatened Ecological Community available at: http://www.environment.gov.au/biodiversity/threatened/communities/pubs/153-conservation-advice.pdf
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
completion criteria	means a measurable outcome based on suitable reference sites, used to determine <i>revegetation/rehabilitation</i> success.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of <i>Phytophthora</i> species on native vegetation.
direct seeding	means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has a minimum of two (2) years work experience relevant to the type of environmental advice that an environmental specialist is required to provide under this permit, or who is approved by the CEO as a suitable environmental specialist.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
planting	means the re-establishment of vegetation by creating favourable soil conditions and <i>planting</i> seedlings of the desired species.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
rehabilitation/ed/ing	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetation/ed/ing	means the re-establishment of a cover of local provenance native vegetation in an area using methods such as natural <i>regeneration</i> , <i>direct seeding</i> and/or <i>planting</i> , so that the species composition, structure and density is similar to pre-clearing vegetation types in that area

Term	Definition
weeds	means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS



Jessica Burton
A/MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20
of the Environmental Protection Act 1986*

10 AUGUST 2023

SCHEDULE 1

The boundary of the area authorised to be cleared is shown in the map below (



Figure 1).



Figure 1: Map of the boundary of the area within which clearing may occur



Figure 2: Map of the boundary of the area within *revegetation* and *rehabilitation* is to occur



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 9710/1
Permit type:	Area permit
Applicant name:	Hamersley 1 WA Pty Ltd
Application received:	20 April 2022
Application area:	3.961 hectares of native vegetation
Purpose of clearing:	Tyre recycling facility
Method of clearing:	Mechanical clearing
Property:	Lot 12 and 13 on Deposited Plan 23754
Location (LGA area/s):	City of Rockingham
Localities (suburb/s):	East Rockingham

1.2. Description of clearing activities

The application is to clear native vegetation for the purpose of constructing a tyre recycling facility. The application area is bound to the north and east by cleared land in the Clipper Precinct of the Rockingham Industry Zone (RIZ), to the south by cleared rural land and to the west by native vegetation in the RIZ Conservation Area.

Lot 12 and 13 have been impacted by previous industrial infrastructure comprising a large shed and some disused infrastructure associated with a wool scouring plant that was built between 1995 and 2000. The shed and yards are now used for a different purpose.

The re-development of the proposal site occurs within the Rockingham Industrial Zone which occurs within the Greater Kwinana Industrial Area. This area produces outputs of 4.3 billion per annum and exports 1.6 billion a year. It generates total economic activity worth 15 billion and provides 3600 jobs mainly of local residence of Kwinana region.

The proposed facility is to receive and process up to 45,000 tonnes per annum (tpa) of 'end of life' tyres and medium quality conveyor belts and will recycle the waste into a range of products used in civil projects. The facility will also supply recycled mesh rubber in the manufacture of rubber modified bitumen spray seals for roads and is an accredited supply to MRWA. The end product is also used for flooring in the dairy industry and playground surfaces.

1.3. Decision on application

Decision:	Granted
Decision date:	10 August 2023
Decision area:	3.91 hectares of native vegetation, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix G.1), the findings of a flora and vegetation survey, threatened ecological community and black cockatoo habitat assessment and wetland evaluation, advice received from DBCA, the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the purpose of the clearing is for a tyre recycling facility that proposes to recycle up to 45,000 tonnes per annum (tpa) of 'end of life' tyres and conveyor belts into products used in civil projects and for mesh rubber in the manufacture of rubber modified bitumen spray seals for roads for Main Roads Western Australia (MRWA).

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing will result in the following significant residual impacts:

- the loss of 1.4 hectares of moderate quality black cockatoo foraging habitat
- the loss of 58 future potential black cockatoo breeding trees
- the loss of 3.566 hectares of native vegetation that is representative of the Tuart Woodland TEC in poor to moderate condition, in accordance with the Conservation Advice for this TEC.
- the loss of 0.06 hectares of native vegetation that is mapped as Conservation Category Wetland (CCW).

In accordance with the Government of Western Australia's (WA) Environmental Offsets Policy and Environmental Offsets Guidelines, the Delegated Officer determined that the following offsets are required to address the above significant residual impacts:

- Revegetation of 3.5 hectares of the Tuart Woodland TEC to very high condition, in accordance with the Conservation Advice for this TEC, and will comprise foraging and breeding habitat flora species (including *Banksia* and *Hakea* species) for the Carnaby's cockatoo. The revegetation is to be undertaken within Rockingham Lakes Regional Park which is also a Bush Forever site and will be protected in perpetuity.
- Provision of a monetary contribution to the WA Offset Fund which will be used for the purchase of 0.26 hectares of native vegetation within the Shire of Waroona that consists of wetland dependent vegetation in very good to excellent condition, to be protected in perpetuity and ceded to Department of Biodiversity, Conservation and Attractions (DBCA).

The Delegated Officer is satisfied that the environmental impacts associated with this project have been appropriately avoided, minimised and mitigated and the significant residual impacts have been offset. It is considered that the clearing is unlikely to lead to an unacceptable risk to the environment. Further information on the suitability of the offsets provided are summarised in Section 4.

The Delegated Officer decided to grant this clearing permit subject to the following conditions which have been imposed on the clearing permit, to manage and address the impacts of clearing:

- avoid, minimise to reduce the impact and extent of clearing;
- weed and dieback management to minimise the risk of introduction and spread of weeds and dieback;
- fauna management to provide fauna an opportunity to move into adjacent native vegetation ahead of the clearing activity; and
- offsetting to counterbalance the significant residual impacts of the proposed clearing.

1.5. Site map



Figure 1 Map of the application area

The area crosshatched yellow indicates the area authorised to be cleared under the granted clearing permit

Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- *Environmental Offsets Guidelines* (August 2014)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

2 Detailed assessment of application

2.1. Avoidance and mitigation measures

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

The applicant has advised that:

- The native vegetation proposed to be cleared has a history of disturbance with a large proportion of the application area having been previously cleared;
- A flora and vegetation survey, tuart woodland TEC assessment and black cockatoo habitat assessment and wetland evaluation has been undertaken;
- An Urban Water Management Plan will guide the development and will address any surface and groundwater risks associated with redeveloping the site. All stormwater will be retained and infiltrated on site and no overflow of water will be allowed into adjoining bushland.
- A Flora and Fauna Management Plan will be developed which will include monitoring of adjacent bushland to ensure impacts are minimised to adjacent areas,
- Area proposed to be cleared will be demarcated prior to clearing;
- Weed and dieback measures will be put in place to control spread of weeds and dieback into adjacent areas;
- The landscaping post development on site will include the use *Banksia* spp. as an alternative to the exotic species.
- There is an existing fence around the application area and is 1.8m high chain mesh fence. Dust curtains will be installed along the western side of the Lots to minimise any airborne dust during construction. Fencing will be maintained, and any breaches noted during visual inspections will be repaired in a timely fashion to ensure that the barrier remains in place. At the conclusion of development, the dust curtains will be taken down. The existing fence meets the design requirements from the City of Rockingham.
- A 20 km per hr speed limit during construction and 50 km per hr limit in the industrial areas will be implemented to prevent vehicle bird strike (PGV, 2023a).

After consideration of avoidance and mitigation measures, it was determined that significant residual impacts to the Tuart woodland TEC, foraging and future breeding habitat for Carnaby's cockatoo and a small area mapped as conservation category wetland remain and that an appropriate offset is required.

In accordance with the Government of Western Australia's *Environmental Offsets Policy* and *Environmental Offsets Guidelines*, these significant residual impacts have been addressed through the conditioning of environmental offset requirements on the permit. The nature and suitability of the offset provided are summarised in Section 4.

2.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see **Error! Reference source not found.** C) identified that the impacts of the proposed clearing present a risk to biological values (fauna, flora and vegetation) and water resources. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

2.2.1. Biological values (biodiversity, fauna) - Clearing Principles (a) and (b)

Assessment:

Fauna

According to available databases, a total of 50 conservation significant fauna species have been recorded within the local area. Noting the habitat requirements, distribution of the recorded species, the mapped vegetation types and the condition of the vegetation within the application area, as well as the findings of the black cockatoo habitat assessment (PGV Environmental, 2022), it is considered that the application area is likely to comprise suitable habitat for the following species:

- Carnaby's cockatoo (*Zanda latirostris*) – Endangered (EPBC Act and BC Act)
- Forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*) – Vulnerable (EPBC Act and BC Act)
- Quenda (*Isodon fusciventer*) – Priority 4 (DBCA)
- Perth lined skink (*Lerista lineata*) – Priority 3 (DBCA); and
- Black-striped snake (*Neelaps calonotos*) – Priority 3 (DBCA)
- Western Brush Wallaby (*Macropus Irma*) – Priority 4 (DBCA)

Black cockatoos

The application area falls within the modelled distribution Carnaby's cockatoo (*Zanda latirostris*) and forest red-tailed black cockatoo (*Calyptorhynchus banksia* subsp. *naso*) (collectively referred to as 'black cockatoos' herein this report). The seasonal movements of black cockatoos mean they require large areas of habitat for breeding, night roosting and foraging, as well as connectivity between these habitats to assist their movement through the landscape (Commonwealth of Australia, 2012).

The application area may provide suitable breeding habitat for black cockatoos which includes trees that either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) (of 500 millimetres) to develop a nest hollow (Commonwealth of Australia, 2012). Carnaby's cockatoo typically nests in eucalypt woodlands, primarily in the hollows of wandoo (*Eucalyptus wandoo*), salmon gum (*E. salmonophloia*) and marri (*Corymbia calophylla*) (Groom, 2015). Black cockatoos are also known to develop nests in Tuart trees (*Eucalyptus gomphocephala*) (DAWE 2022)

A black cockatoo assessment identified 58 Tuart trees with the diameter at breast height (DBH) greater than 500 millimetres within the application area. Although none of these trees had suitable hollows, these 58 trees are considered to be potential breeding trees (PGV Environmental, 2022).

Noting typical food resources for black cockatoos, the application area contains approximately 1.53 hectares of foraging habitat for these species. Forest red-tailed black cockatoo feed on the seeds of marri and jarrah, as well as other *Eucalyptus* species and *Allocasuarina* cones (Commonwealth of Australia, 2012). Carnaby's cockatoo feeds on the seeds, nuts and flowers of a large variety of plants including Proteaceous species (*Banksia*, *Hakea* and *Grevillea*), as well as *Allocasuarina* and *Eucalyptus* species, *Corymbia calophylla* and a range of introduced species (Valentine and Stock, 2008).

A black cockatoo habitat assessment identified one suitable black cockatoo foraging species within the application area to include tuarts (*E. gomphocephala*) (PGV Environmental, 2022). No evidence of foraging by black cockatoo's was identified on site. The foraging habitat on the site is considered to be low to moderate quality foraging habitat for the Carnaby's cockatoo. Forest red-tailed black cockatoo and Baudin's are not known to forage on Tuart trees (PGV Environmental, 2022).

The application area is considered to provide low to moderate foraging habitat that supports black cockatoo breeding. While breeding, black cockatoos will generally forage within a 6–12 kilometre radius of their nesting site (Commonwealth of Australia, 2012; EPA, 2019). The application area is located just outside the mapped confirmed breeding area for Carnaby's cockatoo and is within 8.8 km from a confirmed breeding hollow.

The assessment also determined that the application area is considered to provide foraging habitat that supports black cockatoo roosting sites. Individual roost sites need suitable foraging habitat and a water source within 6 kilometres (EPA, 2019). Overlapping foraging ranges within 12 kilometres also support roosting sites and maintain habitat connectivity and movement across the landscape (EPA, 2019). Available databased indicate that there are 15 known roosting sites for black cockatoos within the local area with a total of 9 within a 6 km radius.

There was no evidence of roosting observed during the site assessment on 1 July 2021 (PGV Environmental, 2022).

It is estimated that the local area comprises approximately 22407 hectares of native vegetation which is mapped as black cockatoo foraging habitat. The application area represents approximately 0.006 per cent of this extent. However, considering that the local area is highly cleared with only 32 percent pre-European vegetation extent remaining, the application area is considered significant in supporting the viability of the local populations of black cockatoos.

Considering the above the application area is considered to represent critical habitat for black cockatoos.

Other conservation significant fauna

Noting the vegetation identified (PGV Environmental, 2023a) within the application area and its quality, the habitat requirements and distribution of the below species, the application area provides suitable habitat for each of these species (Table 1). Taking into consideration the extent of the proposed clearing relative to the surrounding native vegetation, the habitat within the application area is not considered significant in the local context.

Whilst not considered significant habitat, impacts to individual terrestrial fauna may occur at the time of clearing. To minimise these potential impacts, the applicant will be required to undertake slow, progressive one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity should they occur on site at the time of clearing.

A number of conservation significant marine, coastal, waterbirds have been recorded within the local area, the habitat for these species are widespread and varied and the proposed clearing is not likely to impact upon significant habitat for these species.

Table 1: Fauna descriptions of species likely to have habitat within the application area

Quenda	The Quenda is listed as priority 4 by DBCA, is known to inhabit scrubby, swampy vegetation with low, dense understorey, located nearby water courses, pasture, or forest/woodland that is regularly burnt and is in areas of pasture and cropland lying close to dense cover. Populations which inhabit jarrah and wandoo forests are usually associated with watercourses. Quendas will thrive in more open habitat subject to exotic predator control. For example, quenda have become abundant in Lake Magenta Nature Reserve (Western Australia) in Mallee scrub and woodland following fox control (Department of Conservation, 2012a).
Black-striped snake, black-striped burrowing snake	Black-striped snake, black-striped burrowing snake (<i>Neelaps calonotos</i>) is one of five species of small burrowing elapids in the Perth region. The species is more abundant north of the Swan River, whereas records are comparatively scarcer to the south. <i>N. calonotos</i> typically occupy Banksia woodlands atop soft calcareous sand and, to a lesser extent, coastal heathlands and shrublands. Although relatively abundant in both habitats, scientists recorded higher capture rates of <i>N. calonotos</i> in Banksia woodlands which are also the preferred habitat for skinks, such as <i>Aprasia</i> and <i>Lerista spp.</i> , which are exclusive food resources for <i>N. calonotos</i> . <i>N. calonotos</i> is rarely found in small urban bushland remnants as these are more susceptible to weed infestation, bushfires and predation by feral species, with weeds having an adverse effect on the composition of microhabitats required by fossorial species (He, 2021).
Western Brush Wallaby	The Western Brush Wallaby's optimum habitat is open forest or woodland, particularly favouring open, seasonally-wet flats with low grasses and open scrubby thickets. It is also found in some areas of mallee and heath-land, and is uncommon in karri forest (DEC, 2012).
Perth slider, lined skink	Perth slider, lined skink (<i>Lerista lineata</i>) is largely restricted to the Swan Coastal Plain including Garden and Rottnest Island, mostly within the highly developed southern Perth Metropolitan Area. The species likely has poor dispersal abilities and relies on litter ground cover and other debris for shelter, which makes it vulnerable to fire. <i>L. lineata</i> is known to occur in several bush remnants near Perth, including Forrestdale Lake Nature Reserve, Jandakot Airport, Modong Nature Reserve and

Conclusion

Based on the above assessment, the proposed clearing will result in:

- potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values;
- will impact upon individual conservation significant fauna if present during clearing activities;
- loss of 1.4 hectares of low to moderate black cockatoo foraging habitat; and
- loss of 58 future potential black cockatoo breeding trees.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- weed and dieback management to minimise the risk of introduction and spread of weeds and dieback;
- fauna management to provide fauna an opportunity to move into adjacent native vegetation ahead of the clearing activity; and
- offsetting to counterbalance the significant residual impacts to black cockatoos.

The Delegated Officer determined that the significant residual impacts can be addressed through a suitable offset (as conditioned on the clearing permit). Section 4 of this report provides further information on the offset provided.

2.2.2. Biological values (biodiversity, flora and threatened ecological communities) - Clearing Principles (a) and (d)

Assessment:

Flora

According to available databases, three threatened and 17 Priority flora species are known to occur within the local area. To confirm the presence/absence of these species within the application area, the applicant commissioned PGV Environmental (2023a) to undertake a flora and vegetation survey.

The PGV Environmental (2023a) flora and vegetation survey was undertaken on two occasions on 1 July 2021 and 15 October 2021, which is considered an appropriate time for vegetation surveys on the Swan Coastal Plain (EPA, 2016). The survey identified a total of 55 species, 13 native and 42 introduced species. Of these, no flora listed as threatened or Priority by DBCA was identified within the application area.

Noting the survey efforts, survey timing and flowering periods of the species considered as potentially occurring within the application area, it is considered that the application area is unlikely to provide habitat for other conservation significant flora known to occur within the local area.

Threatened Ecological Community (TEC)

Tuart Woodlands

A TEC Assessment undertaken by PGV Environmental (2022) determined that one patch of 'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain' (Tuart woodland TEC) occurs within the application area. The proposed clearing will result in the loss of 3.566 hectares of native vegetation which represents the Tuart Woodland TEC.

The proposed clearing of 3.566 hectares of the Tuart Woodlands ecological community is likely considered a significant impact on a local scale. The cumulative impacts to this ecological community from land clearing in the local area have resulted in a considerable reduction in size of what was once a much larger patch that likely would have once extended to the north and southeast before being cleared. The loss of the ecological community may also result in increased risk to the viability of the remaining patch of the ecological community which extends to the southwest from weed invasion, rubbish and hydrological changes (DBCA, 2022).

The vegetation representative of this TEC is in a completely degraded (Keighery, 1994) condition, however the vegetation identified as 'Eg' in the flora and vegetation survey meets the definition of the Tuart Woodlands TEC, as the size of the patch is larger than 5 hectares minimum required for a patch of Tuart Woodland TEC in poor condition, in accordance with the Conservation Advice for this TEC. Although the patch of TEC proposed to be cleared will need intensive management to improve its condition, it has important ecological value at a regional scale as it

provides linkage to the remaining area of the ecological community which extends to the southwest and as a vegetation buffer to Reserve 52979 on the western boundary (DBCA, 2022).

FCT 19b

An occurrence of the 'Woodlands over Sedgeland in Holocene dune swales of the southern Swan Coastal Plain (FCT 19b) threatened ecological community has been mapped adjacent to the proposed clearing area.

A wetland evaluation study was undertaken by the applicant to determine if the proposed clearing would impact the adjacent TEC as the wetland mapped within the application area and the adjacent FCT19b TEC may be hydrologically linked.

The wetland evaluation study which including a hydrological assessment was undertaken that reviewed available information including groundwater flow and behaviour, geotechnical information, wetland conditions, existing management plans, and stormwater management techniques to provide an assessment of potential impacts. The wetland evaluation determined the following:

- The maximum historical groundwater level under the site would be 1m below surface;
- The average annual maximum groundwater level (AAMGL) for the site is at approximately 2m AHD, or 2m below the existing natural surface. This depth is greater than would normally be expected for a wetland.
- Groundwater investigations for the Rockingham Industry Zone found the groundwater gradient to be very flat with a minor gradient to the northeast locally, which indicates flow at the site to be away from the conservation area containing wetlands and SCP 19 to the west.
- The area of vegetation within the site proposed for clearing represents only a minor proportion compared to the total conservation area located to the west and the wider catchment contributing to the local hydrology.
- On this basis and considering the site characteristics described above, the proposed clearing is therefore considered unlikely to have any noticeable influence on regional groundwater levels or flow direction in relation to the conservation area to the west of the site; and
- Based on the above assessment, it is considered that clearing within the site will not have any adverse effect on the hydrological behaviour of the superficial aquifer locally, with groundwater levels within the conservation area continuing to vary seasonally and annually within its current range of variability (PGV Environmental, 2023b).

Given the above, and that the vegetation proposed to be clearing has been historically impacted, partially cleared and is in a degraded (Keighery, 199) condition, the proposed clearing is not likely to have a significant impact on this adjacent TEC. The proposed clearing may indirectly impact this TEC through the spread of weeds and dieback. Weed and dieback management practices will help mitigate this risk.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 3.566 hectares of native vegetation which represents the Tuart Woodland TEC in poor to moderate condition.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Weed and dieback management condition to minimise the risk of introduction and spread of weeds and dieback; and
- offset conditions to counterbalance the significant residual impacts of the clearing.

Delegated Officer determined that the significant residual impacts can be addressed through a suitable offset (as conditioned on the clearing permit). Section 4 of this report provides further information on the offset provided.

2.2.3. Biological values (wetlands) - Clearing Principles (f)

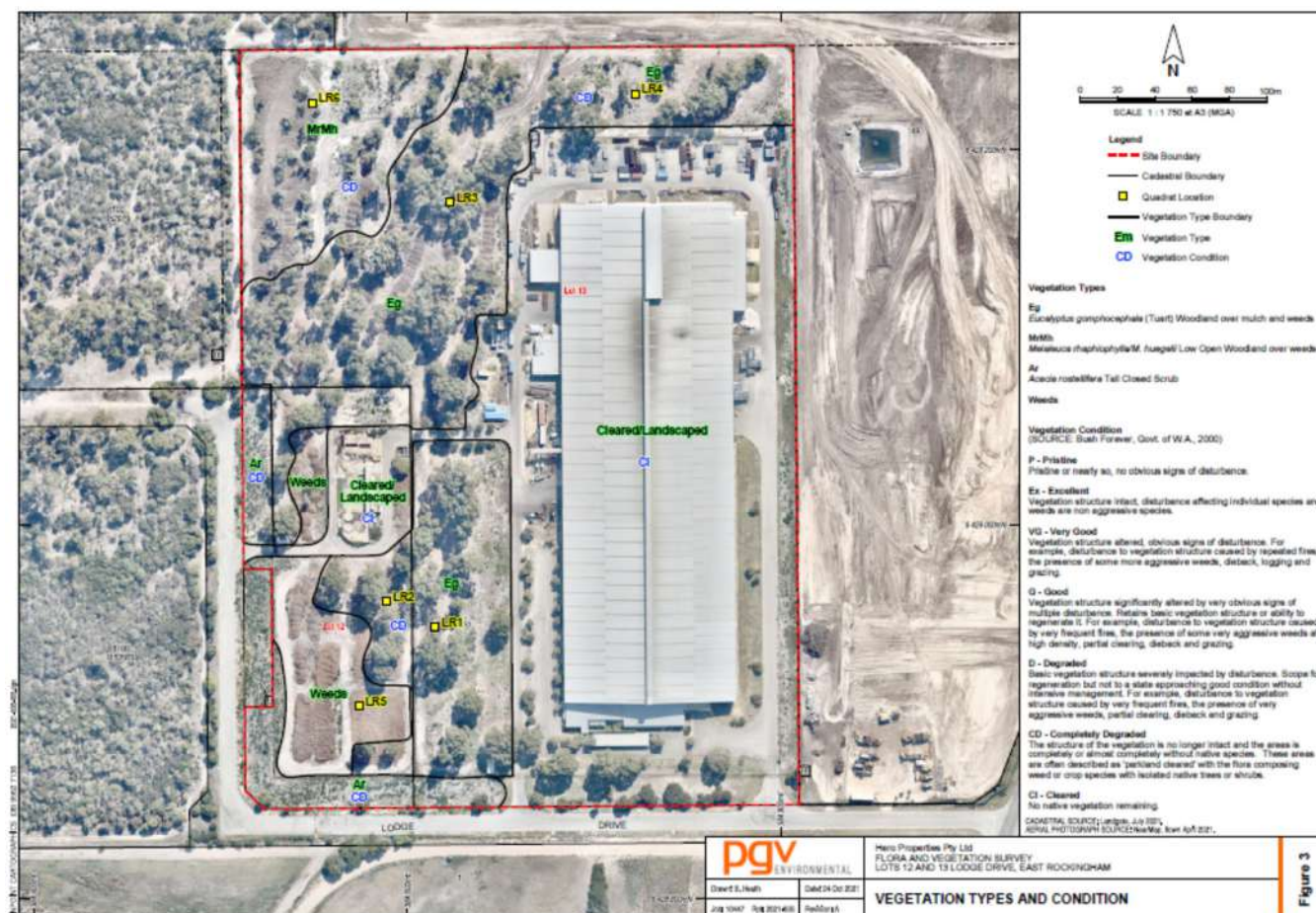
Assessment:

Two conservation category wetlands are mapped within the application area. Conservation category wetlands support a high level of ecological attributes and function through various mechanisms (Water and Rivers Commission, 2001). Approximately 0.5 hectares of the mapped wetland is proposed to be cleared.

The two conservation category wetlands (CCW) (UFI 6621 and UFI 6383) have been highly modified through clearing and grazing between 1961 and 1995 and then by the construction of a road that divided the eastern portion of the wetlands off from the larger main sections to the west of the application area, between 1995 and 2000. UFI 6383

extends into the site by 10-17m and UFI 6621 by 140m, both are separated by a road from the western extent of the main portion of the wetlands.

The Flora and Vegetation survey report by PGV (2023a) (see Figure 2 below) identifies the vegetation within the mapped wetland as occurring in predominantly degraded to completely degraded (Keighery, 1994) condition and has been significantly impacted by historical clearing and weed evasion (PGV, 2023a). The vegetation within the mapped wetland consists of areas of Tuart trees over grassy weeds and areas of Acacia dominated shrubland (PGV, 2023a).



A wetland evaluation study was undertaken by PGV Environmental (2023b) in accordance with 'A methodology for the evaluation of wetlands on the Swan Coastal Plain, Western Australia (DBCA, 2017). PGV Environmental (2023b) advised that the two wetlands mapped as overlapping the site do not meet the preliminary evaluation criteria of automatic identification as a CCW. According to the secondary evaluation criteria the two wetlands were determined to be Resource Enhancement wetland management category (REW).

DBCA assessed the wetland evaluation study and agreed that within the application area, most of the mapped wetland areas contain values commensurate with a REW category (DBCA, 2023a). REWs are wetlands which have been partially modified but still retain wetland ecological attributes and functions (Water and Rivers Commission, 2001). However, DBCA advised that recent aerial imagery indicates that two small portions (approximately 0.06 hectares) (see Figure 2 below) appear to have more vegetative cover now then in 2021, when the survey was conducted by PGV. Although these two areas were included in the survey in 2021, given the change in vegetative cover and limited photographs or quadrat data supplied, DBCA determined that there is insufficient evidence to support a change in management category from CCW to REW of these two small areas (DBCA, 2023b).



Figure 2: Red outlined areas indicate portion of wetlands that retain conservation category. Green hatched area indicates location of mapped wetland within the application area. The blue hatched area is the area proposed to be cleared.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of 0.44 hectares of native vegetation mapped as growing within two REWs and 0.06 hectares that is mapped as being consistent with a CCW. Given the degraded to completely degraded (Keighery, 1994) condition of the REW portion of the application area which has been impacted by current and previous infrastructure, the proposed clearing of these areas is not considered to impact on significant wetland values. While the clearing of 0.06 hectares of native vegetation mapped as CCW is relatively small, the Delegated Officer considers that the clearing of any vegetation mapped as CCW to be a significant residual impact.

Conditions

To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- Weed and dieback management condition to minimise the risk of introduction and spread of weeds and dieback into adjacent wetland areas.
- Offset to counterbalance impact to 0.06 ha of mapped CCW.

The Delegated Officer determined that the significant residual impact to the CCW mapped area can be addressed through a suitable offset (as conditioned on the clearing permit). Section 4 of this report provides further information on the offset provided.

2.3. Relevant planning instruments and other matters

The application area falls within the Cockburn Groundwater Area, as proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). The construction of a well and to take groundwater for non-domestic purposes, such as dust suppression for construction and irrigation of landscaping, would require a licence from DWER. There is an existing licence to take water GWL206642 for Lot 13. The department has not received any amendment or new applications for the properties to date. The groundwater resource in this area is fully allocated and therefore the department would be unlikely to grant new requests for water. However, the department can consider temporary licences for dewatering, earthworks and dust suppression (DWER, 2022).

The Metro Outer Joint Development Assessment Panel granted planning approval accordance with regulation 8 of the *Planning and Development (Development Assessment Panels) Regulations 2011*, on 9 May 2023 for a 'proposed tyre recycling facility' within Lot 12 (No.4) and 13 (No.6) Lodge Drive, East Rockingham.

The Department of Climate Change, Energy, the Environment and Water (DCCEEW, 2023) approved commercial development of Lots 12 and 13 Lodge Drive, East Rockingham, WA (EPBC 2021/9069) under section 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The approval authorised the action to construct and operate a commercial site on Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia subject to conditions.

No Aboriginal sites of significance have been mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The City of Cockburn (2022) advised that that multiple Aboriginal scarred trees have been recently identified in the RIZ area but not within the area under application. Under section s17 of the *Aboriginal Heritage Act 1972* (Western Australia), it is an offence to damage or disturb an Aboriginal scarred tree. As such, the following recommendations are applicable:

- The applicant is advised that Aboriginal scarred trees may be present on-site, which are protected under the *Aboriginal Heritage Act 1972*;
- The applicant is encouraged to engage a suitably qualified heritage consultant to determine whether any scarred trees are present on-site; and
- The applicant is reminded of its obligation to obtain the necessary heritage approvals before undertaking clearing on the site.

The applicant advised that they are aware of the occurrences of the Scar Trees within the Rockingham Industrial Zone and that one occurs to the north of the site and will not be impacted by the proposed clearing.

3 Suitability of offsets

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and mitigation measures summarised in Section 3.1:

- Loss of 1.4 hectares of native vegetation that provides low to moderate quality foraging habitat for Carnaby's cockatoo
- Loss of 3.566 hectares of native vegetation that is representative of the Tuart Woodland TEC in poor to moderate condition; and
- 58 trees that provide potential future breeding habitat for Carnaby's cockatoos.
- 0.06 hectares mapped as conservation category wetland

To counterbalance the above impacts and as a result of discussion with the applicant and DBCA, the following offset has been proposed:

- Revegetation of 3.5 hectares of the Tuart Woodland TEC to very high condition in accordance with the Conservation Advice for this TEC, which will comprise foraging and breeding habitat (including Banksia and Hakea species) for the Carnaby's cockatoo. The revegetation is proposed within Rockingham Lakes Regional Park which is also a Bush Forever site (Map below). An appropriate revegetation plan has been provided by the applicant to support the revegetation offset.
- Provision of a monetary contribution to the WA Offset Fund, prior to clearing, which will be used for the purchase of 0.26 hectares of native vegetation within the Shire of Waroona that consists of wetland dependent vegetation in very good to excellent condition, to be protected in perpetuity and ceded to Department of Biodiversity, Conservation and Attractions (DBCA).

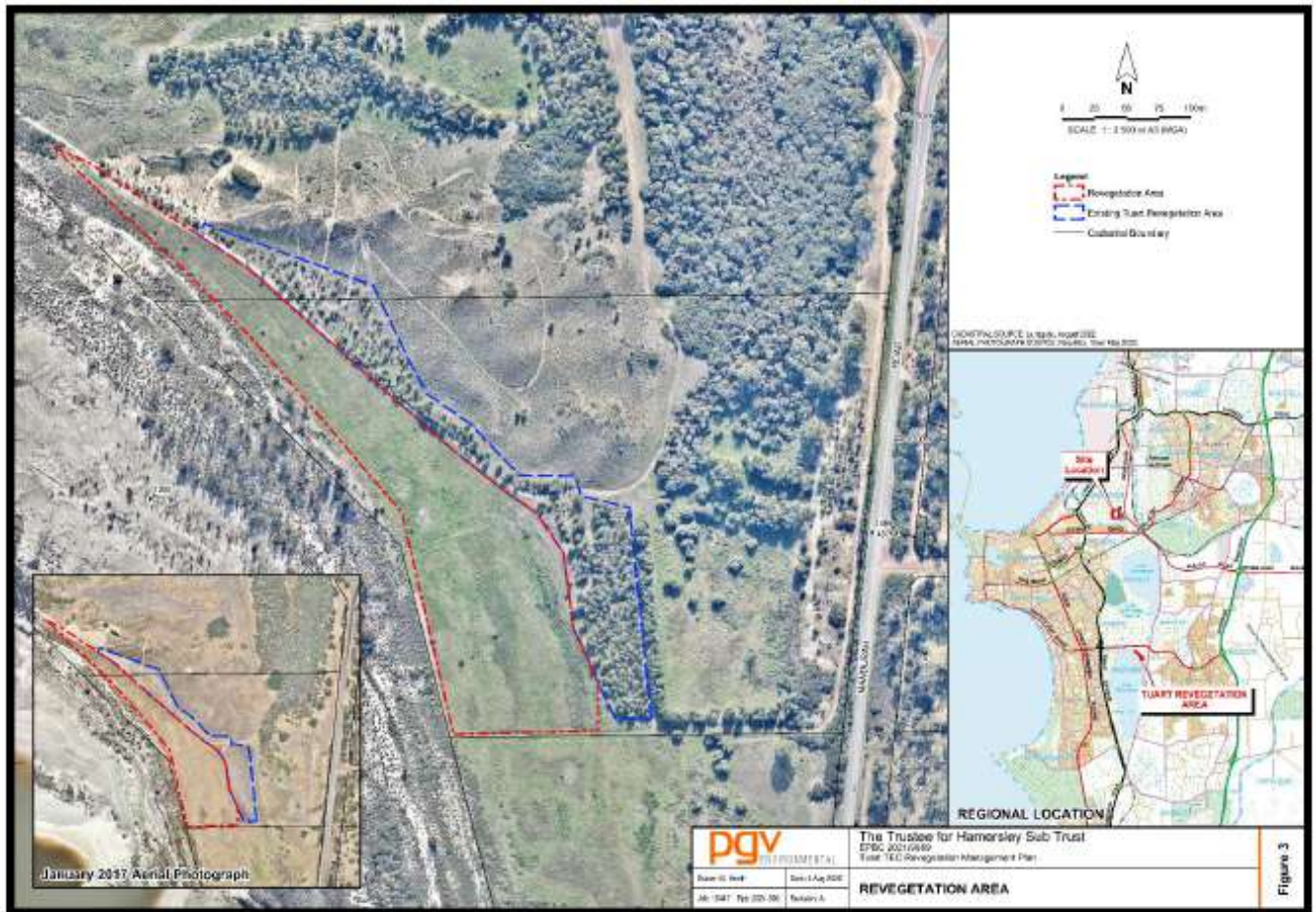


Figure 2. Location of site for revegetation offset.

WA Offset Metric calculations

In assessing whether the proposed offset is adequately proportionate to the significance of the environmental values being impacted, calculations using the WA Offsets calculator were undertaken. These calculations indicate that the revegetation offset and monetary contribution to the offset fund proposed, are sufficient to adequately counterbalance the significant residual impacts of the proposed clearing. Justification for the values used in the offset calculation are provided in Appendix E.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Avoidance, minimisation and mitigation measures and the need for the clearing provided by applicant.	Information has been included under section 2.1
Supporting information – wetland evaluation (PGV Environmental, 2023b)	Information presented in the survey report has been incorporated into the assessment where relevant.
Supporting information – Offset proposal (PGV Environmental 2023b) and revegetation management plan (PGV Environmental, 2023c)	Information presented has been incorporated into the assessment under section 3.

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The area proposed to be cleared is a 3.556-hectare patch of native vegetation in the intensive land use zone of Western Australia. The site is bound to the north and east by cleared land in the Clipper Precinct of the Rockingham Industry Zone (RIZ), to the south by cleared rural land and to the west by native vegetation in the RIZ Conservation Area. The vegetation type was assessed as being part of the Tuart Woodlands and Forests of the Swan Coastal Plain TEC which is listed as Critically Endangered under the Commonwealth EPBC Act. The proposed clearing area is mapped as containing Conservation Category Wetlands in the south-west portion of the site. Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 32.5 per cent of the original native vegetation cover.
Ecological linkage	The application area does not intersect any formally mapped ecological linkages. Given the application area consists of remnant native vegetation surrounded by highly disturbed area, it is not considered to be contributing significantly to the values of the nearby mapped linkages or to any formal ecological linkages in the local area.
Conservation areas	The closest conservation area is the DBCA legislated tenure (id 7621), located approximately 750 metres east of the application area.
Vegetation description	A flora and vegetation survey (PGV Environmental, 2023a) indicates the vegetation within the proposed clearing area consists of <i>Eucalyptus gomphocephala</i> (Tuart) Woodland over Mulch and Weeds. One area of <i>Melaleuca raphiophylla</i>/M. <i>huegelii</i> Low Open Woodland over weeds occurred in the north and south west corners. The site has a high density of weed coverage (PGV Environmental, 2023a). Representative photos and the full survey descriptions and maps are available in Appendix FF. This is consistent with the Swan Coastal Plain vegetation association Quindalup Complex mapped vegetation type which is described as Coastal dune complex consisting mainly of two alliances - the strand and fore-dune alliance and the mobile and stable dune alliance. Local variations include the low closed forest of <i>Melaleuca lanceolata</i> (Rottnest Teatree) - <i>Callitris preissii</i> (Rottnest Island Pine), the closed scrub of <i>Acacia rostellifera</i> (Summer-scented Wattle) and the low closed <i>Agonis flexuosa</i> (Peppermint) forest of Geographe Bay.

Characteristic	Details
	The mapped vegetation type retain approximately 60.49 per cent of the original extent (Government of Western Australia, 2019b).
Vegetation condition	Vegetation survey (PGV Environmental, 2023a) indicates the vegetation within the proposed clearing area is in Completely Degraded (Keighery, 1994) condition due to historic clearing, very low native understorey species and high weed densities. This condition is described as: completely degraded: The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs. The full Keighery (1994) condition rating scale is provided in Appendix DD. The full survey descriptions and mapping are available in Appendix FF.
Climate and landform	- Rainfall – Mean Annual: 800 millimetres - Evapotranspiration – Areal Actual: 700 millimetres - Topography: The site is flat at around 4m AHD, however the site's natural contours have been modified as a result of earthworks for past land use and importation of mulch (PGV Environmental, 2023).
Soil description	The soil is mapped as Quindalup Phase 3 (211Qu) Safety Bay sands which is described as calcareous deep sands and yellow sands and coastal scrub (DPIRD 2022).
Land degradation risk	The mapped soil subsystem has elevated risks of water repell; all remaining land degradation risks are low (DPIRD, 2021). Given the mapped land degradation risks and the purpose for clearing the risks of appreciable land degradation are very low.
Waterbodies	The desktop assessment, aerial imagery and vegetation survey indicated that the areas proposed to clear contain two Conservation Category Wetlands (CCW) in the south-west part of the site. The areas now contain a layer of mulch, up to 0.5m thick (PGV Environmental, 2023a).
Hydrogeography	The application area falls within the Cockburn Groundwater Area, as proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act).
Flora	According to available databases, a total of three flora species listed as threatened under the BC Act and 17 priority listed flora by DBCA have been recorded within the local area. The vegetation identified 55 plant species consisting of 13 native and 42 introduced species. The survey did not identify any species listed as a Threatened or Priority species (PGV Environmental, 2023a).
Ecological communities	The desktop assessment identified two ecological communities namely: - Tuart woodlands (Tuart (<i>Eucalyptus gomphocephala</i>) woodlands and forests of the Swan Coastal Plain)- Critically Endangered - SCP19b (Sedgeland in Holocene dune swales of the southern Swan Coastal Plain)- Endangered The application area is mapped within Tuart woodlands TEC and located adjacent to a mapped occurrence of the SCO19b ecological community.
Fauna	According to available databases, a total of 50 conservation significant fauna species have been recorded within the local area. Given the boundary of the local area overlaps the ocean, the majority of the recorded species are exclusively associated

Characteristic	Details
	with marine, estuarine or freshwater habitats that do not occur within the application area. Noting the habitat requirements, distribution of the recorded species, the mapped vegetation type, the condition of the vegetation within the application area, and the findings of the flora and vegetation survey (PGV, Environmental 2023a) the application area is likely to comprise suitable habitat for: • Carnaby's cockatoo (<i>Zanda latirostris</i>) – Endangered (EPBC Act and BC Act) • Forest red-tailed black cockatoo (<i>Calyptorhynchus banksii naso</i>) – Vulnerable (EPBC Act and BC Act) • Quenda (<i>Isodon fusciventer</i>) – Priority 4 (DBCA) • Perth lined skink (<i>Lerista lineata</i>) – Priority 3 (DBCA); and • Black-striped snake (<i>Neelaps calonotos</i>) – Priority 3 (DBCA) • Western Brush Wallaby (<i>Macropus Irma</i>) – Priority 4 (DBCA)

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Swan Coastal Plain	10,418.06	3043.13	29.21	855.93	8.22
Vegetation complex					
Quindulup	54,573.87	33,011.64	60.49	5994.64	10.98
Local area					
10km radius			32.50	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.” <u>Assessment:</u> The application area contains values which are considered to indicate a high level of biodiversity; namely, vegetation representative of two listed TEC's and significant habitat for conservation significant fauna.	At variance	Yes Refer to Section 3.2.1 and 3.2.2, above.

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (b):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</i> <u>Assessment:</u> The proposed clearing area contains significant foraging habitat for Carnaby’s and forest red-tailed black cockatoos. Ground dwelling conservation significant fauna may also utilise the application area.	At variance	Yes <i>Refer to Section 3.2.1, above.</i>
<u>Principle (c):</u> <i>“Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</i> <u>Assessment:</u> The application area is unlikely to contain habitat for threatened flora species due to available habitats within the application area and based on an appropriately timed flora survey of the application area.	Not likely to be at variance	No
<u>Principle (d):</u> <i>“Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</i> <u>Assessment:</u> The proposed clearing area contain species composition indicative of a TEC listed under the BC Act and/or EPBC Act.	At variance	Yes <i>Refer to Section 3.2.2, above.</i>
Environmental value: significant remnant vegetation and conservation areas		
<u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i> <u>Assessment:</u> <i>Example:</i> The extent of the mapped vegetation type and native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. The vegetation proposed to be cleared is not considered to be part of a significant ecological linkage in the local area.	Not likely to be at variance	No
<u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i> <u>Assessment:</u> Given the distance to the nearest conservation area, the proposed clearing not likely to have an impact on the environmental values of nearby conservation areas.	Not likely to be at variance	No
Environmental value: land and water resources		
<u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i> <u>Assessment:</u> The application is mapped within a conservation category wetland.	At variance	Yes <i>Refer to Section 3.2.3, above.</i>

Assessment against the clearing principles	Variance level	Is further consideration required?
<u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.” <u>Assessment:</u> The mapped soil subsystem has elevated risks of water repellance; all remaining land degradation risks are low (DPIRD, 2023). Given the mapped land degradation risks and the purpose for clearing, the risks of appreciable land degradation is low.	Not likely to be at variance	No
<u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.” <u>Assessment:</u> Given the completely degraded (Keighery, 1994) nature of the application area, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water.	Not likely to be at variance	No.
<u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.” <u>Assessment:</u> The soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.	Not likely to be at variance	No

Appendix D. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from:

Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.

Condition	Description
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix E. Offset calculator value justification

Offset calculation for residual impact to Tuart woodland TEC and significant habitat for black cockatoos.

Field Name	Description	Justification for value used
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	6.8% - Afforded to Tuart Woodland TEC as this community is listed as Critically Endangered under the EPBC Act.
		1.2% - Afforded to Carnaby's cockatoo habitat as this species is listed as Endangered under the BC Act and the EPBC Act.
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	3.57 - The application area includes 3.57 hectares of vegetation representative of Tuart Woodland TEC
		1.4 - The application area comprises 1.4 hectares of Carnaby's cockatoo foraging habitat
		58 - The application area includes 58 future Carnaby cockatoo breeding trees.
<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	2 - best fit for the combination of vegetation condition (completely degraded), site context (low) and habitat attributes (moderate) for Tuart Woodland TEC on the SCP
		6 - best fit (average) for the combination of vegetation condition (moderate), site context (high) and habitat attributes (high) for Carnaby's cockatoo on the SCP
<i>Duration (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed mitigation site can be considered and quantified	20 - The offset site will be vested as 'conservation'. 20 years is the maximum value associated with this field.
<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals)</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed mitigation to be realised	6 – 6 years has been assigned for revegetation of the TEC representing the expected time the revegetation of Tuart will meet the diagnostic criteria for the Tuart TEC 10 – 10 years has been assigned for revegetation offset sites representing the expected age for the revegetation site to provide moderate foraging habitat for Carnaby's cockatoo
<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as mitigation - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	0 - A quality score of (0) has been assigned for the revegetation offset based on the offset area in a completely degraded condition comprising of a bare paddock with not native vegetation present.
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed mitigation site without the mitigation	0 - A quality score of () has been assigned for the revegetation offset based on the offset area being managed for conservation under a business as usual model.

<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed mitigation site with the mitigation	4 – A quality score of (4) has been assigned for the revegetation offset based on the provision of a revegetation plan and 5 year period proposed to achieve the Tuart Woodland TEC 5 – A quality score of (5) has been assigned for the revegetation offset based on the provision of a revegetation plan and 10 year period required to achieve low to moderate quality foraging habitat.
<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed mitigation site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without the mitigation	5% - A risk of loss percentage without offset of 5% has been assigned as revegetation is proposed to take place within Rockingham Lakes Regional Park (Bush Forever site 356) which is currently managed for conservation.
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed mitigation site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with the mitigation	5% - A risk of loss percentage without offset of 5% has been assigned as revegetation is proposed to take place within Rockingham Lakes Regional Park (Bush Forever site 356) which is currently managed for conservation.
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	80% - A confidence in result (risk of loss) value of (80%) has been assigned due to the high level of certainty about the risk without the proposed offset due to the delivery agent for revegetation.

Offset calculation for residual impact to vegetation mapped as conservation category wetland.

Field Name	Description	Justification for value used
<i>IUCN Criteria</i>	The IUCN criteria for the value being impacted	0.1% - Afforded to a category wetland for which an offset is required.
<i>Area of impact (habitat/community) or Quantum of impact (features/individuals)</i>	The area of habitat/community impacted or number of features/individuals impacted	0.06 ha - The application area includes 0.06 hectares of vegetation mapped as a conservation category wetland
<i>Quality of impacted area (habitat/community)</i>	The quality score for area of habitat/community being impacted - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	3 - Vegetation may be in degraded to good condition. Although these areas were included in the survey, the information supplied about them was limited, hence consideration given to the quality of surrounding areas, aerial imagery and also a precautionary approach has been applied in selecting a metric input score.
<i>Duration (habitat/community)</i>	This describes the timeframe over which changes in the level of risk to the proposed mitigation site can be considered and quantified	20 - The offset site will be vested as 'conservation'. 20 years is the maximum value associated with this field.
<i>Time until ecological benefit (habitat/community) or Time horizon (features/individuals)</i>	This describes the estimated time (in years) that it will take for the main benefit of the quality (habitat/community) or value (features/individuals) improvement of the proposed mitigation to be realised	1 – 1 years for offset site to be purchased by DBCA and protected for conservation purposes
<i>Start quality (habitat/community)</i>	The quality score for the area of habitat/community proposed as mitigation - a measure of how well a particular site supports a particular threatened species or ecological community and contributes to its ongoing viability	7 - condition offset site to be in very good to excellent condition and representing a CCW
<i>Future quality without offset (habitat/community) or Future value without offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed mitigation site without the mitigation	7 - condition of offset site is not likely to change without intervention.
<i>Future quality with offset (habitat/community) or Future value with offset (features/individuals)</i>	The predicted future quality score (habitat/community) or value (features/individuals) of the proposed mitigation site with the mitigation	7 - condition of offset site is not likely to change without intervention.

<i>Risk of loss (%) without offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed mitigation site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future without the mitigation	15% - A risk of loss percentage without offset of 15% as offset site is likely to be zoned rural.
<i>Risk of loss (%) with offset (habitat/community)</i>	This describes the chance that the habitat/community on the proposed mitigation site will be completely lost (i.e. no longer hold any value for the protected matter of concern) over the foreseeable future with the mitigation	5% - A risk of loss percentage with offset of 5% has been assigned as offset site will be protected in perpetuity as DBCA managed land.
<i>Confidence in result (%) – Change in quality (habitat/community) or Change in value (features/individuals)</i>	The level of certainty about the successful achievement of the proposed change in quality (habitat/community) or value (features/individuals)	90% - A confidence in result (risk of loss) value of (90%) confidence that an adequate offset site will be purchased

Appendix F. Flora and vegetation survey, TEC and Black Cockatoo assessment and Wetland Evaluation information excerpts

Flora and vegetation survey – Lots 12 and 13 Lodge Drive, East Rockingham (PGV Environmental, 2023)

Table 5: Vegetation Type on the Site

Vegetation Type	Description	Photograph
Eg <i>Eucalyptus gomphocephala</i> (Tuart) Woodland over mulch and weeds	This is the main vegetation type occurring on the site. The Tuart trees were around 12-15m high with an average canopy cover of 20-25%. There were very few native understorey species present throughout the site. The only native shrub species that was reasonably common on the site was <i>Acacia rostellifera</i> while the climbing plant <i>Clematis linearifolia</i> was sometimes present. The 'soils' were mostly a half metre of mulch that had been spread out over the site in the past. Quadrats LR1, 2, 3 and 4 are representative of this vegetation type.	 

Vegetation Type	Description	Photograph
MrMh <i>Melaleuca raphiophylla</i> /M. <i>huegelii</i> Low Open Woodland over weeds	This vegetation type occurred in the north-west corner of the site. The vegetation type contained medium tree species <i>Melaleuca raphiophylla</i> and to a lesser extent <i>M. huegelii</i> and some <i>Banksia littoralis</i> up to 5m high. <i>Acacia rostelifera</i> and <i>Spyridium globulosum</i> were sparse native shrubs in the area otherwise the understorey was all introduced species. The dominant shrub species are indicative of wetland vegetation found elsewhere in the RIZ, however the area is not mapped as a wetland and the 0.5m layer of mulch has altered the natural surface level such that wetland species are unlikely to regenerate in the area over time. The 'soils' were mostly a half metre of mulch that had been spread out over the site in the past. Quadrat LR6 is representative of this vegetation type.	
Weeds	Several areas occurred on the site that did not have any native species. These areas had been mulched in the past up to as much as 0.5m deep. The condition of the areas prior to the mulching is not known. The areas contained abundant weeds, particularly grass species. No regeneration of any native species was observed in these areas. The 'soils' were mostly a half metre of mulch that had been spread out over the site in the past. Quadrat LR5 is representative of this vegetation type.	



Plate 6: Rhamnus in the Conservation Category Wetland Area

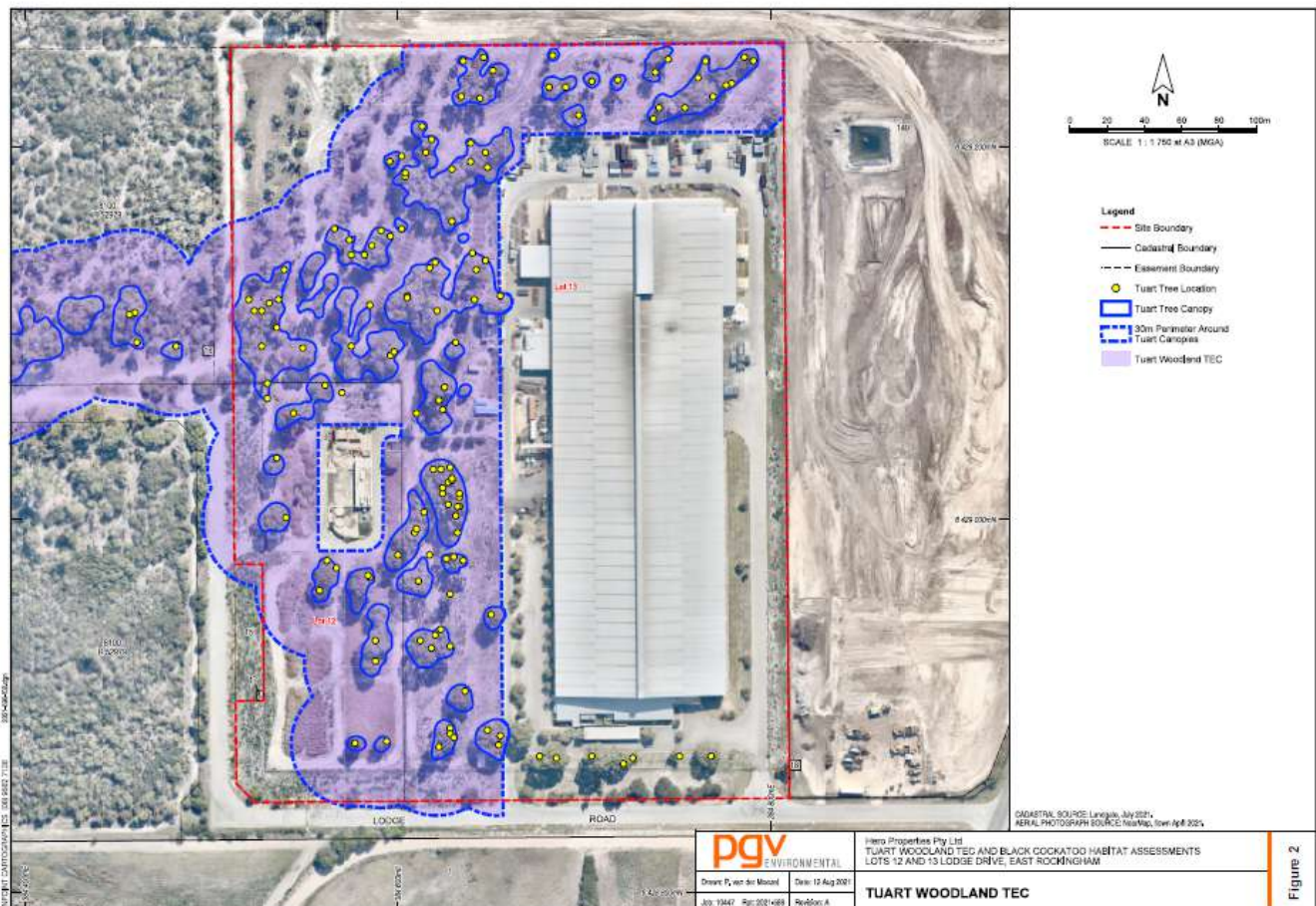


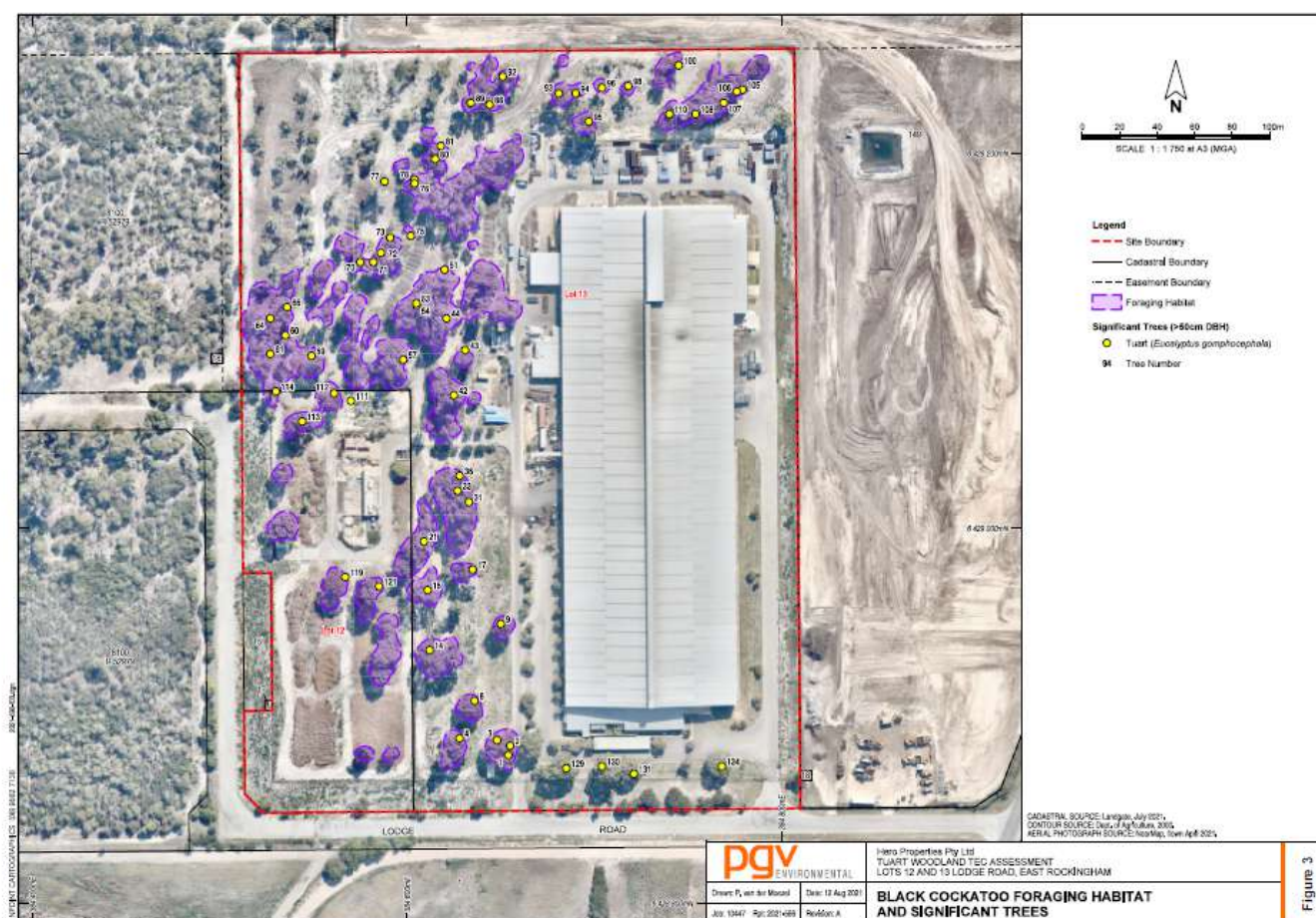
Tuart Woodland TEC Assessment and Black Cockatoo Assessment (PGV Environmental, 2022)

Plate 6: Tuart Trees over Mulch



Plate 7: Tuart Trees over Weeds





Appendix G. Sources of information

G.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas

- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)
-

G.2. References

- City of Cockburn (2022) *Advice for clearing permit application CPS 9710/1*, received 7 October 2022 (DWER Ref: DWERDT668236).
- Commonwealth of Australia (2001) *National Objectives and Targets for Biodiversity Conservation 2001-2005*, Canberra.
- Commonwealth of Australia. (2012). Department of Sustainability, Environment, Water, Population and Communities. EPBC Act referral guidelines for three threatened black cockatoo species.
- Commonwealth of Australia (2016) Approved Conservation advice for the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swab Coastal Plain ecological community. Canberra
- DAWE (2022) Referral guideline for 3 WA threatened black cockatoo species: Carnaby's Cockatoo, Baudin's Cockatoo and the Forest Red-tailed Blackcockatoo, Department of Agriculture, Water and the Environment, Canberra
- DEC (2012) Fauna profiles - Western Brush Wallaby - *Macropus irma*. Western Australia. <https://library.dbca.wa.gov.au/static/FullTextFiles/925291.pdf>
- Department of Biodiversity, Conservation and Attractions (DBCA) (2022) *Species and Communities Branch TEC/wetland advice for clearing permit application CPS 9710/1*, received 30 September 2022. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT66538).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023a) *Species and Communities Branch updated wetland advice for clearing permit application CPS 9710/1*, received 9 August 2023. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT818617).
- Department of Biodiversity, Conservation and Attractions (DBCA) (2023b) *Species and Communities Branch additional updated wetland advice for clearing permit application CPS 9710/1*, received 9 August 2023. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT818627).
- Department of Climate Change, Energy, the Environment and Water (DCCEEW 2023) Notification of approval
- Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA (EPBC 2021/9069). Western Australia. DWER Ref: DWERDT794435)
- Department of Environment Regulation (DER) (2013). *A guide to the assessment of applications to clear native vegetation*. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

- Department of Primary Industries and Regional Development (DPIRD) (2022). *NRInfo Digital Mapping. Department of Primary Industries and Regional Development*. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed July 2023).
- Department of Water and Environmental Regulation (DWER) (2019). *Procedure: Native vegetation clearing permits*. Joondalup. Available from: https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.
- Department of Water and Environmental Regulation (DWER) (Regulatory Services – Water) (2022) *Rights in Water and Irrigation Act 1914 advice for clearing permit application CPS 9710/1*, received 27 June 2022 (DWER Ref: DWERDT623081).
- Environmental Protection Authority (EPA) (2016). *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment*. Available from: http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA%20Technical%20Guidance%20-%20Flora%20and%20Vegetation%20survey_Dec13.pdf.
- Environmental Protection Authority (EPA) (2016). *Technical Guidance – Terrestrial Fauna Surveys*. Available from: https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf.
- Environmental Protection Authority (EPA). (2019). EPA Technical Report: Carnaby's Cockatoo in Environmental Impact Assessment in the Perth and Peel Region. Advice of the Environmental Protection Authority under Section 16(j) of the Environmental Protection Act 1986.
- Government of Western Australia (2019a) *2018 South West Vegetation Complex Statistics. Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>
- Government of Western Australia. (2019b) *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019*. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>
- Groom, C. (2015). Roost site fidelity and resource use by Carnaby's Cockatoo (*Calyptorhynchus latirostris*), on the Swan Coastal Plain, Western Australia. Thesis submitted for the degree of Doctor of Philosophy, University of Western Australia, Crawley.
- Hamersley 1 WA (2022) *Clearing permit application CPS 9710/1*, received 20 April 2022 (DWER Ref: DWERDT593269).
- Hedde, E. M., Loneragan, O. W., and Havel, J. J. (1980) *Vegetation Complexes of the Darling System, Western Australia*. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Development Assessment Panels (2023) Metro Outer JDAP City of Rockingham – DAP Application – 20.2022.3911 – Determination. Western Australia. DWER Ref: DWERDT794435)
- PGV Environmental (2022) *Supporting information for clearing permit application- TEC and Black Cockatoo assessment CPS 9710/1*, received 20 April 2022 (DWER Ref: DWERDT615941).
- PGV Environmental (2023a) *Supporting information for clearing permit application- Flora and Vegetation survey Lots 12 and 13 Lodge Drive, Rockingham – Version 2*, received 9 June 2023 (DWER Ref: DWERDT814762).
- PGV Environmental (2023b) *Supporting information for clearing permit application- wetland evaluation*, received 10 March 2023 (DWER Ref: DWERDT748375).
- Shah, B. (2006) *Conservation of Carnaby's Black-Cockatoo on the Swan Coastal Plain, Western Australia*. December 2006. Carnaby's Black-Cockatoo Recovery Project. Birds Australia, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) *Native Vegetation in Western Australia, Extent, Type and Status*. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Valentine, L.E. and Stock, W. (2008) *Food Resources of Carnaby's Black Cockatoo (Calyptorhynchus latirostris) in the Gnamptara Sustainability Strategy Study Area*. Edith Cowan University and Department of Environment and Conservation. December 2008.
- Water and Rivers Commission (2001) Position Statement: Wetlands, Water and Rivers Commission, Perth.

**ANNEXURE B
QUOTATION**

Quotation for Revegetation & Maintenance

Date: 18/12/2023
Quote No.: 2023 11 112
Attention: Nick Dalziell
Company: Realside Ovest
Email: nick.dalziell@ovest.net.au
Project: Revegetation Rockingham V5
Prepared by: Stephanie Geard
Phone: (08) 9209 2767
Email: Steph.geard@naturalarea.com

The following quotation is provided to Realside Ovest for the provision of revegetation services within Rockingham Lakes Regional Park (Bush Forever Site No. 356) Rockingham, as part of a clearing activity offset associated with Referral EPBC 2021/9069 (Figure 1). As outlined in the Tuart TEC Revegetation Management Plan prepared by PGV Environmental (2023), Natural Area understands the following services are required for this project:

- initial weed control
- ongoing targeted weed control
- site preparation
- supply and installation of tubestock
- ongoing maintenance including:
 - weed control
 - infill planting
 - rubbish collection and removal
 - fence and gate maintenance
 - pest control
 - bushfire management
- monitoring
- reporting.

Natural Area understands site preparation is to begin in early 2025 with revegetation works to be undertaken in winter 2025. A site visit has been conducted by Natural Area personnel prior to preparation of this quote.

Quotation for Revegetation & Maintenance

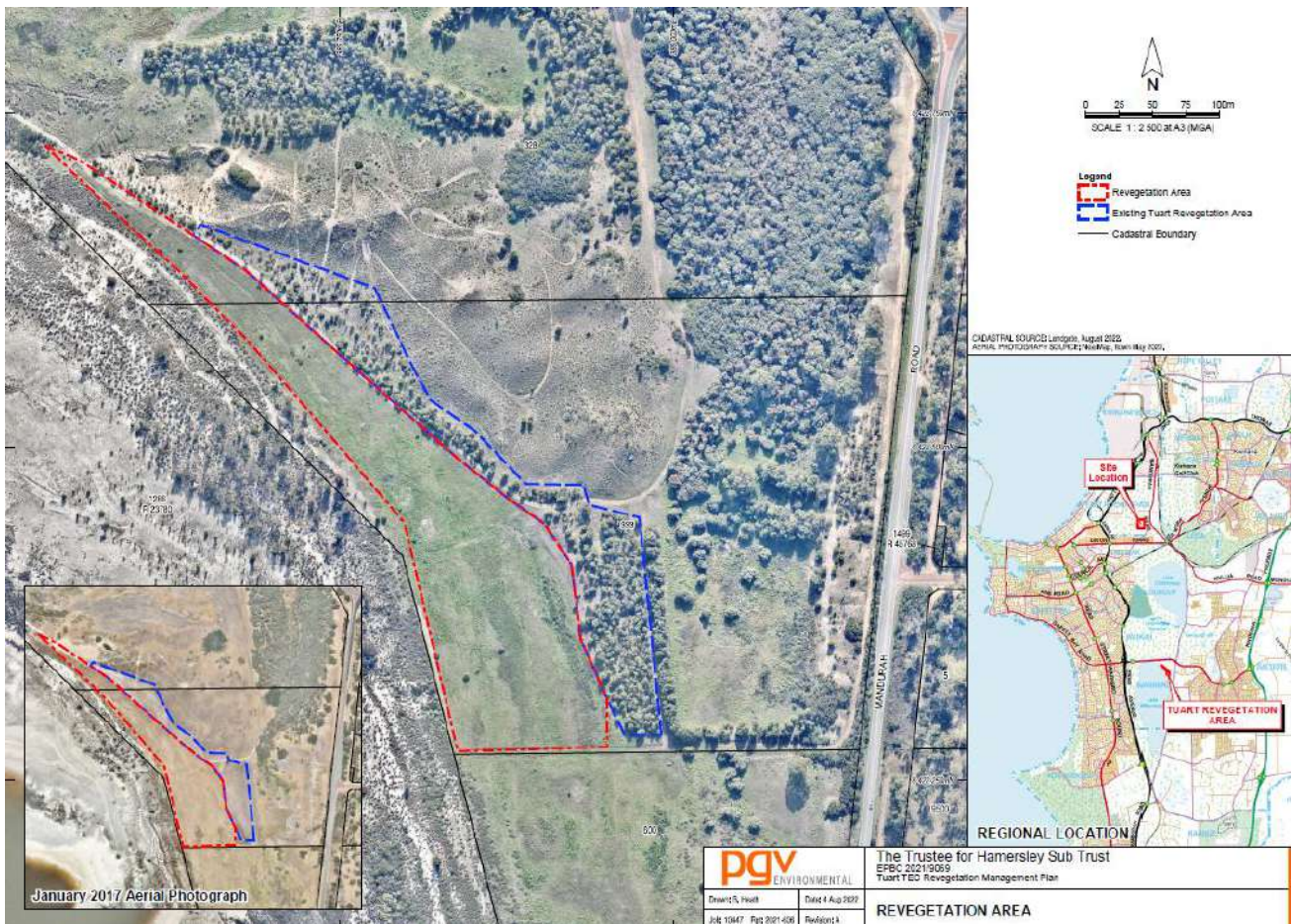


Figure 1: Revegetation site (outlined in red).

Site Preparation

Prior to revegetation works, Natural Area's environmental consultants will undertake weed mapping to provide baseline information on weed species and location within the offset site. Two experienced consultants will transverse the survey area systematically and conduct the following activities in accordance with methodology outlined in *Dixon and Keighery 1995* and *Environmental Weed Strategy WA (EWSWA)*;

- Assess bushland condition across the survey site using the Keighery scale (as per Keighery 1994, Kaesehagen 1995).
- Mapping of weed species (special note will be taken of Declared Pests or Weeds of National Significance (WoNS)) observed in either point or polygon data depending on density and distribution.
- Recording percentage cover of weeds across the gridlines, as per DBCA (2011) standards (estimated at <5%, 6-75%, >75%).

Quotation for Revegetation & Maintenance

As part of the site preparation works Natural Area will undertake targeted weed control, focussing on the following species:

- Narrow Leaf Cottonbush (*Gomphocarpus fruticosus*)
- Pelargonium capitatum (*Rose Pelargonium*)
- Euphorbia terracina (*Geraldton Carnation Weed*)
- Castor Oil Plant (*Ricinus communis*)
- Pampas Grass (*Cortaderia selloana*).

This initial weed control will be undertaken by Natural Area's experienced herbicide technicians who will slash the site utilising a tractor with a slashing attachment before Boom spraying the area with 1% Glyphosate. A second boom spraying application will be applied one month prior to planting, again applying 1% Glyphosate across the site to control any regrowth.

Between herbicide applications prior to planting Natural Area's experienced field technicians will rip the site using a tractor with a winged tine attachment to create a 40 cm deep rip line every second line to create a microclimate that will contribute to seedling development.



Figure 2: Natural Area undertaking ripping in preparation for revegetation activities at Yellagonga Regional Park for DBCA (2022).

Fencing

Natural Area has extensive experience in the installation of kangaroo exclusion fencing and can ensure the longevity of the fence through utilising high-quality products. Our field technicians have the capacity to install a 1.8m Kangaroo exclusion fence including a rabbit skirt to demarcate the revegetation area and prevent herbivory. A single point of access to allow machinery and vehicles into the site will be included with the installation of a double vehicle gate. The fencing will be constructed using the following materials:

Quotation for Revegetation & Maintenance

- 1.8 m galvanised chain-link mesh
- galvanised capped post 80 mm x 2,600 mm
- galvanised capped post 32 mm x 2,700 mm
- galvanised star pickets 2,700 mm
- galvanised pipe 30 mm x 3.25 m
- Galvanised joiners and fixings
- Heavy galvanised wire netting 90/4/1.4 mm x 100 m
- helicoil wire 4.0 mm 25kg/255 m
- 7,000 mm galvanised chain mesh double gate

Natural Area's experienced field technicians will construct the fence using the following methodology:

- fencing alignment will be marked out by a trained surveyor
- fencing alignment will be cleared of vegetation and smoothed using a terrex rt-40 posi-track loader, taking care not to clear more vegetation than necessary
- corner, gate and reinforcing posts will comprise of 2,700 mm 80 mm or 2,600 mm 32 mm galvanised steel pipe and will be installed using a kanga mini loader with an auger attachment, installed to a finished height of 1,800 mm
- reinforcing galvanised posts will be installed following 4 intermediate star pickets to provide support to the fence
- all corner gate and reinforcing posts will be cemented with three bags of quickset cement
- corner and gate posts will be appropriately stayed to ensure corner posts do not move during wire straining
- 2,700 mm galvanised star pickets that will be installed to a finished height of 1,800 mm
- helicoil will be installed to the top, middle, and bottom of the fence and tensioned using wire tensioners and gripples
- 1.8 m galvanised chainmesh will be installed and tensioned to the fence using a strainer
- Chainmesh will be secured to the pre-installed wire using C-clips and clipped to the fence posts
- a Komatsu pc18mr-3 excavator will then be used to dig a trench along the fencing alignment to a depth of 100 mm for the installation of the rabbit proof netting beneath the surface
- a double vehicle access chainmesh farm gate will be installed to allow vehicle access to the site

Natural Area's field technicians have the capacity to remove the fencing following completion of the 5-year project. A quote may be provided at the time of works if requested.

Quotation for Revegetation & Maintenance



Figure 3: Natural Area's posi-track loader rolling out ringlock mesh along a fence alignment (Shire of Capel).

Revegetation

Where possible tubestock will be sourced from Natural Area's own NIASA accredited nursery. Our nursery has the ability to propagate over 600 different native species including many recalcitrant species from endemic seed and cuttings. All tubestock will be local provenance native species where possible, stored within our accredited facility and taken to site daily, on each day of planting. This allows us the ability to manage and guarantee the supply of quality plant stock specifically for this site. Natural Area has successfully completed numerous revegetation projects for a variety of local government authorities, private landholders, and property developers. This experience has given rise to a highly skilled team of staff who are experienced in the planting of native species, this will ensure that planting areas are planted as per the revegetation plan and will deliver a finished site representing the adjacent remnant bushland. Species installed will be based on a revised species list provided in the PGV Environmental Revegetation Management Plan (*PGV Environmental 2023*) (Table 1).

Due to stock shortages in 2025, Natural Area will install a total of 15,230 understory and 672 Tuart (*Eucalyptus gomphocephala*) tubestock in 2025, and install a further 19,306 understory and 336 Tuart tubestock in 2026. These numbers include infill planting numbers in 2026, as well as the additional species which were unavailable in 2025. These tubestock will be installed throughout the offset site at a rate of 1.6 trees per 100 m² for the Tuart, and 0.7 per m² for understory species. We understand that signage will be required during planting works at each access point stating that revegetation works are in progress. All tubestock will be installed in Autumn / Winter following the first 100 mm of rainfall using the following methodology:

- Initial holes for planting will be made using handheld petrol augers, holes will be created deep enough to ensure that the entire root ball of the plant will be covered, but not too deep as to bury parts of the plant.
- A slow-release native fertiliser tablet will be placed into each hole.
- Plants will be installed into each hole, covered, and patted down firmly to ensure that no air is left around the root ball.

Quotation for Revegetation & Maintenance

Table 1: Indicative Species List (PVG Environmental 2023)

Species
Overstory
<i>Eucalyptus gomphocephala</i>
<i>Allocasuarina fraseriana.</i>
<i>Banksia littoralis</i>
<i>Callitris preissii</i>
Mid Story
<i>Acacia cochlearis</i>
<i>Acacia cyclops</i>
<i>Acacia lasiocarpa</i>
<i>Acacia pulchella</i>
<i>Acacia saligna</i>
<i>Acacia truncata</i>
<i>Banksia menziesii</i>
<i>Banksia sessilis</i>
<i>Hakea prostrata</i>
<i>Jacksonia furcellata</i>
<i>Leucopogon parviflorus</i>
<i>Logania vaginalis</i>
<i>Melaleuca raphiophylla</i>
<i>Melaleuca teretifolia</i>
<i>Templetonia retusa</i>
<i>Xanthorrhoea preissii</i>
Understory
<i>Acanthocarpus preissii</i>
<i>Baumea juncea</i>
<i>Clematis linearifolia</i>
<i>Conostylis aculeata</i>
<i>Gahnia trifida</i>
<i>Hardenbergia comptoniana</i>

Quotation for Revegetation & Maintenance

Lobelia anceps (alata)

Macrozamia riedlei

Melaleuca systema

Olearia axillaris

Maintenance

Natural Area will undertake maintenance activities for a period of 4 years post the initial revegetation. Our experienced field technicians will undertake quarterly inspections during the consolidation period, with works including:

- rubbish collection and removal
- fence and gate maintenance
- pest control
- bushfire management.

Any litter will be collected with rubbish grabbers and placed into recycled bags. All filled rubbish bags will be placed in a trailer/truck and disposed of at an appropriate waste management facility. Any minor damage to the perimeter fence or rabbit skirt will be repaired, and we will determine if additional management of the site is required, including woody weed control and herbivorous pest management. In addition to quarterly maintenance events, Natural Area will also undertake quarterly weed control.

Weed Control

Natural Area has more than 20 years of experience in revegetation and bushland weed control, ensuring that services will be implemented using best practice methodologies for each species, whilst minimising off target damage. Herbicide application for this project will be undertaken by our licenced and trained herbicide technicians, all of whom have relevant qualifications and industry experience. Herbicide applications will be scheduled to coincide with the optimal treatment times for weed species. This will result in a higher kill rate of individual plants and reduce the overall seedbank through targeting species prior to setting of seed. Natural Area will undertake the following treatments on a quarterly basis throughout the consolidation period following planting works:

- Fusillade application events in autumn and winter
- Glyphosate application events in summer and spring.

Proposed dates may change slightly depending on weeds presenting at the time. Natural Area will also provide ongoing targeted weed control if required during quarterly weed control events to treat the following species:

- Narrow Leaf Cottonbush (*Gomphocarpus fruticosus*)
- Rose Pelargonium (*Pelargonium capitatum*)
- Geraldton Carnation Weed (*Euphorbia terracina*)
- Castor Oil Plant (*Ricinus communis*)
- Pampas Grass (*Cortaderia selloana*).

Quotation for Revegetation & Maintenance

Gomphocarpus fruticosus, *Ricinus communis* and *Cortaderia selloana* will be treated by or spot spraying using 1% Glyphosate. Our technicians will treat *Rose Pelargonium* with licenced technicians applying 10 ml/ L Metsulfuron utilising the spot spraying method. And *Euphorbia terracina* will be treated utilising the spot spraying method to apply 12.5 g/ 100 L of Logran.

Our experienced technicians will also provide additional woody weed control through basil barking or cut and paint techniques if the following species are observed during monitoring events:

- Japanese Pepper Tree (*Schinus terebinthifolius*)
- Common Fig (*Ficus carica*)
- Victorian Tea Tree (*Gaudium laevigatum*)
- Buckthorn (*Rhamnus alaternus*).

Natural Area will conduct one final weed control event at the end of the 5-year maintenance period prior to transferring management of the site to DBCA to ensure completion criteria are met.

Watering

It is recommended that tubestock watering is undertaken within the warmer months (November to February) in the first year of revegetation to aid in the successful establishment of planted stock. To increase efficiency and provide support to seedlings only when it's of benefit, watering should be undertaken if rainfall in the month prior has been minimal (less than 10 mm) or if tubestock is exhibiting signs of water stress (e.g., shrivelling, yellowing or loss of leaves). Watering requirements can be determined monthly during maintenance works as per the process outlined below (Figure 4). If required, watering will be applied at a rate of 2 L per plant. If pants are suffering from drought stress, additional watering may be required.

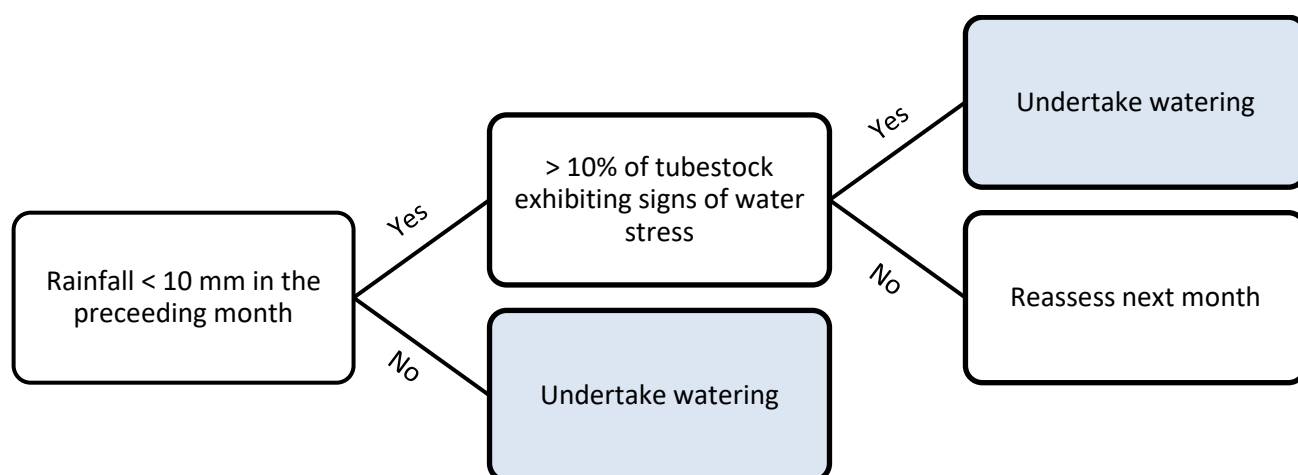


Figure 4: Decision making process to determine the necessity of watering.

Quotation for Revegetation & Maintenance

Infill Planting

Infill planting will occur in the years following initial planting if necessary. Infill planting will occur in 2026 and future years if monitoring activities deem that:

- there is less than 1.6 Tuarts (*Eucalyptus gomphocephala*) per 100 m²
- there is diversity less than 12 species per 100 m²
- native vegetation covers less than 80% of the area.

Monitoring

Monitoring will occur twice annually in spring and autumn for four years following the initial planting period. Natural Area's environmental consultants will assess the site against the completion criteria and will form a guide for infill planting if required. Monitoring will also assess the weed load present and identify the presence of any pest animal activity such as evidence of damage to plants by rabbits or kangaroos. Success will be determined through comparing the outcomes of the monitoring against the completion criteria required for the project. Completion criteria for the revegetation project are as follows:

- survival of, on average, at least 1.6 Tuart (*Eucalyptus gomphocephala*) trees per 100 m²
- diversity of at least 12 understorey species (includes species to 3 m in accordance with the Tuart Woodland Conservation Advice) in each monitoring quadrat (10 m x 10 m plot)
- native vegetation coverage of 80% of the overall vegetation cover or maturing to a cover of 80%
- no introduction of Priority weed species to the offset site
- no introduction of the following woody weeds
 - Japanese Pepper Tree (*Schinus terebinthifolius*)
 - Common Fig (*Ficus carica*)
 - Buckthorn (*Rhamnus alaternus*)
- maintain weed cover to less than 20% of the overall vegetation cover (in each 10 m x 10 m plot or equivalent sample unit).

Monitoring will include:

- establishment of a minimum of five 10 m x 10 m quadrats located evenly throughout the site and marked with fence droppers on each corner
- a photo taken from the south-west corner of each quadrat
- parameters to be surveyed and recorded are;
 - identification of invasive weed species
 - invasive weed density (% cover) if present
 - native species present
 - number of native plants per species
 - native species health
 - vegetation condition
 - visual signs of disturbance
- identify and record locations of any WoNS (weeds of national significance) and declared pests (locations and density %).

Quotation for Revegetation & Maintenance

In addition to this, annual vegetation monitoring will be conducted across the revegetation site using aerial photography to identify areas with poor native vegetation growth. If any areas larger than 250 m² display sparse plant growth, Natural Area will investigate to determine the underlying reasons for this.

Reporting

Natural Area will provide an annual monitoring report within three months of the autumn monitoring event. The annual report will compile both autumn and spring monitoring events and will include:

- dates and works undertaken during the monitoring periods
- evaluation of success of the revegetation area compared to completion criteria
- identification of remedial or maintenance works required
- proposed remediation works.

Additionally, a progress report summarising the implementation of the revegetation management plan will be provided after the initial five years. This report will summarise the following:

- progress toward meeting project goals
- contingency actions taken
- recommendations for the next five years.

Pest Control

Natural Area recommends night shooting as required to control any rabbits which get into the revegetation area. We propose night shooting to be employed per event, targeting rabbits using the following methodology:

- Local Police will be advised of potential shooting dates.
- A Firearm Operations Plans (FORM-OHS-032 Firearms Safety) will be completed a minimum of 24 hours prior to the commencement of shooting works.
- WA Police will be notified both prior to commencement and upon completion on the night of the shoot.
- On the night of the shoot, the site will only be attended nominated shooters. During the event the nominated shooters will ensure:
 - Direction of fire will be exclusively towards the centre of the site, never outwards towards residential and rural land.
 - Any detection of members of the public within the project site will lead to immediate cessation of shoot activity.
 - A dedicated spotter utilising a thermal monocular will be present at all times.
 - Firearms utilised will be a .22 LR rimfire, fitted with an infra-red scope, and using subsonic ammunition.
 - The shooter must always aim for a brain shot causing instant loss of consciousness; a heart shot is only justifiable where the accuracy required for a brain shot cannot be achieved.
- Carcasses will either be buried on site (minimum 600 mm below ground) or disposed of offsite.

Quotation for Revegetation & Maintenance

The night shooting program will be undertaken based on site observations. If high populations of rabbits are sighted in the revegetation area Natural Area may elect to undertake the release of RHDV1-K5 as per the following methodology:

- A free feeding period (three days) would be used lure rabbits to the baiting location and estimate population activity.
- After the free feeding period, baits laced with RHDV1-K5 will be distributed throughout the control area. GPS locations of all bait locations will be recorded.
- Carcasses located on site following the virus release will be photographed, the GPS location recorded, and then wrapped in wire mesh to stop predation and moved to areas of high rabbit activity to increase the spread of the virus through vector species (fleas, flies etc).

Following the completion of each RHDV1-K5 release, a follow-up night shooting event will be undertaken to complement the virus utilising the above methodology. It should be noted that Natural Area does not recommend Pindone baiting on site due to the likely prevalence of quenda in the area.

Recent Project Experience

Natural Area has been undertaking revegetation for 20 years within the Perth Metropolitan Region. Our personnel have gained extensive knowledge and experience through undertaking project works for various clients in a wide range of environments, including wetlands, bushlands, landscaped areas, and foreshores. This experience has led to a qualified team of environmental practitioners with a wide range of skills and knowledge to provide high quality services to our clients. Detailed project examples that highlight our experience in revegetation have been outlined below.

- RIA: Thompson Bay Revegetation (2023)
- City of Gosnells: Southern River Confluence Revegetation (2023)
- City of Gosnells: Nicholson Rd Wetlands 2023 Revegetation (2023)
- City of Stirling: 2255.3 Conservation of Natural Areas (2022 - ongoing)
- City of Cockburn: C100886 Revegetation and Maintenance Services (2021 - ongoing)
- Town of Bassendean: Natural Area Management Services (2021 - ongoing)
- City of Joondalup: Warwick Bushland Revegetation (2022 - 2023)
- MRIA: Murdoch Drive Connect Soft Landscaping (2020 - 2023)
- City of Cockburn: Roe 8 Revegetation (2020 - 2022)
- Shire of Goomalling: Revegetation (2022)
- City of Armadale: Newhaven POS Landscaping and Drainage Upgrades (2022)
- Shire of Capel: Kemerton Offset Planting Project (Kemerton) (2021 - 2022)
- Shire of Goomalling: Offset Revegetation Plant Supply and Installation (2021)
- City of Armadale: Newhaven POS Landscaping and Drainage Upgrades (2022)
- Shire of Capel: Kemerton Offset Planting Project (Kemerton) (2021 - 2022)
- Shire of Goomalling: Offset Revegetation Plant Supply and Installation (2021).

Quotation for Revegetation & Maintenance

Contract	W81023-294 Soft Landscaping Murdoch Drive Connection
Client	MRIA
Contract Dates	2019 - July 2023
Contract Scope	Natural Area was contracted by MRIA to implement soft landscaping and maintenance works at the Murdoch Drive Connection Project area. The area is 25.9 ha with approximately 120,000 tubestock, 110 kg of direct seeding and 850, 5 L trees installed. Works included the following major components: ▪ supply, batching and installation of 120,000 native tubestock mixes with slow release fertiliser tablets ▪ supply and installation of 850, 5 L trees ▪ watering of newly planted/seeded area with water truck or trailer ▪ a 36-month maintenance period of the landscaping and revegetation works, including watering, fertilising, insect and disease control, maintenance, and replacement of plant stock to meet the quality requirements, ▪ monitoring at 12 weeks, then annually before the end of summer for each year of the defects liability period
Outcomes	Erosion control measures were required to remediate unanticipated rainwater erosion. Natural Area successfully completed the soft landscaping to a high standard, as evident by achieving handover to Main Roads WA by the end of the maintenance period.



Figure 5: Before (*left*) and after (*right*) of the Murdoch Drive Revegetation Project, 2019 – 2023.

Quotation for Revegetation & Maintenance

Contract	Roe 8 Tubestock Installation
Client	City of Cockburn
Contract Dates	2019 - ongoing
Contract Scope	Natural Area was contracted by the City of Cockburn to implement revegetation works within the Roe 8 Road Reservation Corridor as part of the Roe 8 rehabilitation project. Works started in 2019 with Natural Area's consulting team undertaking survey works to identify and map the presence of weeds within the area. This was followed by the implementation of weed control, including woody weed control. During the winter of 2020, the Corridor was revegetated with 30,000 native tubestock, each installed with native slow-release fertiliser and tree guards. In 2021, we installed a further 80,000 tubestock with fertiliser and tree guards along the Roe 8 alignment. Subsequently, Natural Area has undertaken yearly weed and tubestock monitoring activities, including reporting, as well as regular weed control, tubestock maintenance and infill revegetation.
Outcomes	This project has been challenging due to low survival of tubestock in recent years as a result of hot dry weather conditions. To mitigate this, Natural Area has conducted infill planting to ensure completion criteria are met. The installation of tree guards and fertiliser, as well as the regular provision of weed control services aids in tubestock survival as much as possible outside of weather conditions. Regular weed mapping and tubestock monitoring allows Natural Area to schedule necessary works promptly and effectively. So far, all completed aspects of this project have been done so to a high standard and to the City's requests and satisfaction.



Figure 6: Revegetation monitoring undertaken in 2019 (*left*) and 2022 (*right*).

Quotation for Revegetation & Maintenance

Contract	RFT 21-04 Implementation of Revegetation Plan Kemerton - Site 1
Client	Shire of Capel
Contract Dates	March 2021-March 2026
	Natural Area was contracted by the Shire of Capel to undertake the rehabilitation of a 3.6 ha offset site located within the Kemerton Industrial Estate Buffer, within the Shire of Harvey. Prior to rehabilitation, it was an area of cleared pastureland, containing sparse native tree species and no native understorey. The major aim of the revegetation plan was to describe and guide revegetation activities over a four year period from site preparation works, installation and plant establishment and three year's post-installation monitoring and maintenance. Before revegetation, Natural Area personnel undertook the following site works: - ripping of the site - weed and pest animal control - rubbish removal - Kangaroo exclusion fence installation - track realignment - firebreak construction Contract Scope Natural Area personnel implemented the first year of planting in 2021, planting a total of 3,360 tree species. The remainder of the plants were planted in the second year, with a further 31,370 plants installed in 2022. Fencing of the site was required to protect the plants from herbivores (kangaroos and rabbits). Fencing works included: - clearing and levelling the ground along the proposed alignment using a Posi-track loader, ensuring damage to any native vegetation present was minimised or avoided - marking our fence lines with a laser level to ensure accuracy and a straight alignment - rabbit proof netting was installed beneath the surface of the ground using a mini excavator to excavate the trench and secured to the fence - fencing was tensioned using wire strainers and gripples - two vehicle gates and one kangaroo access gate were installed in the fence to both keep kangaroos out of the site and allow any kangaroos remaining within the site to exit
Outcomes	The fencing was successful in protecting the revegetation, with no damage to revegetation as a result of herbivory of either kangaroos or rabbits observe to date. Overall, during monitoring events survival of tubestock was observed to be high, with high health ratings across the site and minimal weed species.

Quotation for Revegetation & Maintenance



Figure 7: Revegetation undertaken at the Kemerton offset site.



Figure 8: Revegetation monitoring in 2021 (left) 2022 (middle) and 2023 (right).



Figure 9: An example of a gate installed (*left*), and installation of rabbit proof netting (*right*) for the Shire of Capel at the Kemerton Offset site.

Quotation for Revegetation & Maintenance

Estimated Costings

An estimated cost schedule for revegetation works is provided in Table 2 below which outline the estimated costing over the 5 year period (2025 – 2029). Works associated with the implementation of this plan can be provided for a **Lump Sum cost of \$478,643.88 incl GST**. A schedule of rates for additional works is provided in Table 3. An estimated timeline for delivery of works is provided in Table 4.

Quotation for Revegetation & Maintenance

Table 2: Cost Schedule for Revegetation Maintenance and Monitoring 2025 – 2029

	Year 1 - 2025				Year 2 - 2026				Year 3 - 2027				Year 4 - 2028				Year 5 - 2029				Total cost (\$ ex GST)
Activity	Unit	Qty	Unit rate	Cost (\$ ex GST)	Unit	Qty	Unit rate	Cost (\$ ex GST)	Unit	Qty	Unit rate	Cost (\$ ex GST)	Unit	Qty	Unit rate	Cost (\$ ex GST)	Unit	Qty	Unit rate	Cost (\$ ex GST)	
Preliminaries																					
Weed Mapping	Day	1	2,560.00	2,560.00																	2,560.00
Slashing	Event	1	2,140.00	2,140.00																	2,140.00
Ripping	Event	1	2,140.00	2,140.00																	2,140.00
Planting Works																					
Tubestock Procurement	Each	15,230	2.90	44,167.00																	44,167.00
Tuart procurement	Each	672.00	2.90	1,948.80																	1,948.80
Tubestock Install	Each	15,902.00	1.60	25,443.20																	25,443.20
weed control / maintenance																					
Initial Weed Control	Event	2	1,160.00	2,320.00																	2,320.00
Weed Control	Event	1	7,056.00	7,056.00	Event	4	7,056.00	28,224.00	Event	4	7,344.00	29,376.00	Event	4	7,560.00	30,240.00	Event	3	7,704.00	23,112.00	118,008.00
Maintenance	Event	1	736.00	736.00	Event	4	736.00	2,944.00	Event	4	776.00	3,104.00	Event	4	784.00	3,136.00	Event	3	784.00	2,352.00	12,272.00
Infill Planting Supply					Each	19,642	3.20	62,854.40	Each	7,695	2.80	21,546.00	Each	7,695	2.90	22,315.50					106,715.90
Infill Planting Install					Each	19,642	1.70	33,391.40	Each	7,695	1.80	13,851.00	Each	7,695	1.90	14,620.50					61,862.90
Monitoring																					
Monitoring	Item	1	5,250.00	5,250.00	Item	2	5,376.00	10,752.00	Item	2	5,280.00	10,560.00	Item	2	5,440.00	10,880.00	Item	1	5,600.00	5,600.00	43,042.00
Reporting					Item	1	2,016.00	2,016.00	Item	1	1,980.00	1,980.00	Item	1	2,040.00	2,040.00	Item	1	2,100.00	2,100.00	8,136.00
5 Year Report																	Item	1	4,375.00	4,375.00	4,375.00
Yearly Total (ex GST)				93,761.00				140,181.80				80,417.00				83,232.00				37,539.00	435,130.80
GST				9,376.10				14,018.18				8,041.70				8,323.20				3,753.90	43,513.08
Yearly Total (incl GST)				103,137.10				154,199.98				88,458.70				91,555.20				41,292.90	478,643.88

Pricing Notes:

- Pricing excludes a reference site survey. If one is required, this will be added as an additional cost.
- Pricing excludes the provision of pest management, a rate for which has been provided below.
- Pricing excludes the provision of watering services, a rate for which has been provided below.
- Actual cost for Infill planting to be determined by monitoring; above costs are indicative.
- Monitoring works allow for the establishment of 5-8 quadrats, if more are required additional fees will apply.
- Pricing excludes fence removal. This can be provided as an additional service.

Quotation for Revegetation & Maintenance

Table 3: Schedule of Rates for Additional Works

Item	Unit	Qty	Unit Cost (\$ ex GST)
Rabbit control – Large Population	Event	1	2,000.00
Rabbit control – Small Population	Event	1	1,260.00
Woody Weed Control (team of 2)	Day	1	1,900.00
Site Survey	Item	1	2,915.00
Fence Supply and Installation	Event	1	109,870.00
Infill Planting (per day per person, excludes plant supply)	Day	1	7,13.50
Watering	Day	1	680.00
Additional Materials	Each		Cost + 10%
Disposal Costs	Each		Cost + 10 %

Pricing Notes:

- Pricing includes one feral rabbit control event. If additional events are required, they will be charged at the rate shown above.
- Pricing excludes removal and disposal of the current fence.

Quotation for Revegetation & Maintenance

Table 4: Indicative Revegetation Schedule

	2025				2026				2027				2028				2029		
Activity	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter
Preliminaries																			
Weed Mapping																			
Slashing																			
Ripping																			
Planting Works																			
Procurement of Tubestock																			
Initial Planting Works																			
Weed Control / Maintenance																			
Initial Weed Control (boom)																			
Weed Control (quarterly)																			
Maintenance (quarterly)																			
Infill Planting Supply																			
Infill Planting Install																			
Monitoring																			
Monitoring																			
Annual Reporting																			
Final Report																			

Quotation for Revegetation

References

Brown and Bettink. (2019). *Gomphocarpus fruticosus* (L.) W.T.Aiton. Retrieved from
<https://florabase.dbca.wa.gov.au/browse/profile/6587>

**ANNEXURE C
REVEGETATION MANAGEMENT PLAN**

EPBC 2021/9069 OFFSET

LOT 333 MANDURAH ROAD WARNBRO TUART TEC REVEGETATION MANAGEMENT PLAN

Prepared for: The Trustee for Hamersley Sub Trust

Report Date: 30 August 2023

Version: 3

Report No. 2023-749

The logo for PGV Environmental. It features the letters 'pgv' in a large, white, lowercase, sans-serif font. To the right of 'pgv', the word 'ENVIRONMENTAL' is written in a smaller, white, uppercase, sans-serif font. The background of the logo area is a solid orange color with a subtle, curved white line arching over the text.

pgv
ENVIRONMENTAL

CONTENTS

Contents	i
Declaration of Accuracy	1
List of Attachments	2
Part A	4
1 INTRODUCTION	5
1.1 Background.....	5
1.2 Proposed Action	5
1.3 Requirement for the Plan	9
1.4 Scope of Work	10
1.5 Report Structure	11
1.6 National Standards for Ecological Restoration	12
2 Tuart Woodland TEC.....	13
2.1 Conservation Listing	13
2.1.1 Description	13
2.1.2 Location and Physical Environment	15
2.2 Creating Tuart Woodland TEC	15
3 ROCKINGHAM LAKES REGIONAL PARK	21
PART B	22
4 OFFSET SITE	23
4.1 Location	23
4.2 Existing Environment.....	25
4.2.1 Land Use	25
4.2.2 Topography.....	27
4.2.3 Geology and Soils.....	28
4.2.4 Hydrology	28
4.2.5 Vegetation	29
5 REVEGETATION MANAGEMENT PLAN.....	31
5.1 Target	31
5.2 Goals.....	31
5.3 Objectives.....	31
5.4 Timeframes.....	32
5.5 Responsibilities.....	32

5.6	Site Preparation	32
5.6.1	Soil Testing.....	32
5.6.2	Reference Site Survey	33
5.6.3	Survey and Fencing.....	33
5.6.4	Weed Control	33
5.6.5	Soil Management.....	34
5.7	Vegetation Planting	35
5.7.1	Species Selection	35
5.7.2	Planting.....	36
5.8	Maintenance	37
5.8.1	Infill Planting.....	37
5.8.2	Weed Control	37
5.8.3	Pest Control	37
5.8.4	Fence and Gate Management	37
5.8.5	Signage and Access.....	37
5.8.6	Rubbish Removal	37
5.8.7	Bushfire Management	38
5.9	Management Actions	38
6	MONITORING	43
6.1	Completion Criteria	43
6.1.1	Tuart Woodland TEC Completion Criteria.....	43
6.1.2	Weed Species	44
6.2	Monitoring.....	44
6.2.1	Quadrat Establishment and Monitoring	44
6.2.2	Broader Vegetation Monitoring.....	45
6.3	Reporting	45
6.3.1	Annual Compliance Reporting	45
6.3.2	Five Year Progress Report.....	45
6.4	Contingency Planning	45
6.5	Implementation.....	47
6.6	Risk Assessment	47
7	TIMING	50
8	SUMMARY	52
9	REFERENCES	53

DECLARATION OF ACCURACY

I declare that to the best of my knowledge, all the information contained in, or accompanying this document is complete, current and correct. I am duly authorised to sign this declaration on behalf of the proponent/approval holder. I am aware that:

- a.* giving false or misleading information is a serious offence under section 137.1 of the Criminal Code Act 1995 (Cth)
- b.* section 137.2 of the Criminal Code Act 1995 (Cth) makes it an offence for a person to produce a document to another person in compliance or purported compliance with a law of the Commonwealth where the person knows that the document is false or misleading;
- c.* section 490 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) makes it an offence for an approval holder to provide information in response to an approval condition where the person is reckless as to whether the information is false or misleading; and
- d.* section 491 of the EPBC Act makes it an offence for a person to provide information or documents to specified persons who are known by the person to be performing a duty or carrying out a function under the EPBC Act or the Environment Protection and Biodiversity Conservation Regulations 2000 (Cth) (EPBC Regulations) where the person knows the information or document is false or misleading.

Signed:

Full name (please print): Paul van der Moezel

Organisation (please print): PGV Environmental

EPBC Referral Number: EPBC Ref: 2021/9069

Name of Action Management Plan this document and declaration refers to:

Tuart Revegetation Management Plan

Date: 22 May 2023

LIST OF ATTACHMENTS

Plates

Plate 1:	Vegetation on Lots 12 and 13
Plate 2:	Vegetation on Lots 12 and 13
Plate 3:	Tuart Trees - Coastal Mallee Structure Alkimos
Plate 4:	Tuart Trees – Tall Structure Mandurah East
Plate 5:	Yellagonga Site 1 in 2016
Plate 6:	Yellagonga Site 1 in 2022
Plate 7:	Yellagonga Site 2 in 2015
Plate 8:	Yellagonga Site 2 in 2018
Plate 9:	Foraging on Planted Marri, 2020
Plate 10:	Foraging on Planted Acorn Banksia 2022
Plate 11:	Foraging on Planted Parrot Bush 2022
Plate 12:	Cleared Paddock that was part of the Revegetation Project
Plate 13:	Healthy Tuarts 6 Years Post Planting
Plate 14:	Aerial photography 1965 (Landgate 2023)
Plate 15:	Aerial photography 1979 (Landgate 2023)
Plate 16:	Aerial photography 1922 (Landgate 2023)
Plate 17:	Offset site Looking South East (August 2022)
Plate 18:	Site Topography
Plate 19:	Looking west over offset site to Lake Walyungup

Tables

Table 1:	Revegetation Management Plan Structure
Table 2:	Species Recorded in Yellagonga Monitoring Plots
Table 3:	Threatened Ecological Communities that Occur in the RLRP
Table 4:	Revegetation Species List
Table 5:	Management Actions
Table 6:	SMART Criteria

Table 7:	Responsibilities
Table 8:	Potential Impacts to Tuart Woodland TEC
Table 9:	Risk Assessment Matrix
Table 10:	Risk Analysis
Table 11:	Indicative Revegetation Schedule

Figures

Figure 1:	Site Location
Figure 2:	Tuart Woodland TEC and Quadrat Locations on the Site
Figure 3:	Offset site

Appendices

Appendix 1:	2021/9069 EPBC Approval
Appendix 2:	Lots 12 and 13 Lodge Drive Tuart Woodland TEC Assessment
Appendix 3:	Rockingham Lakes Regional Park Land Use Plan
Appendix 4:	Description of the vegetation and flora list for Bush Forever Site No. 356

Part A

1 INTRODUCTION

1.1 Background

Lots 12 and 13 Lodge Drive, East Rockingham (Lots 12 and 13) are in the City of Rockingham approximately 36km south of the Perth Central Business District (Figure 1). Lots 12 and 13 are bound to the north and east by cleared land in the Clipper Precinct of the Rockingham Industry Zone (RIZ), to the south by cleared rural land and to the west by native vegetation in the Rockingham Industrial Zone Conservation Area.

Lots 12 and 13 are currently utilised for light industry purposes and contain a large shed, office, and carparks. The balance of the lots contains isolated Tuart Trees (*Eucalyptus gomphocephala*) over a weedy understorey and large areas of mulch (Plates 1 and 2).

According to the *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community* (Tuart Woodland Conservation Advice) the Tuarts on Lots 12 and 13 are representative of the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community (Tuart Woodland TEC) which is listed as Critically Endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Tuart trees were deemed to meet the criteria for a Tuart Woodland ecological community based on the size of the area (>5ha) that the trees covered. The density and species diversity in the understorey did not rate in the criteria due to the cleared understorey, weeds and level of mulching.

Plate 1: Vegetation on Lots 12 and 13



Plate 2: Vegetation on Lots 12 and 13



1.2 Proposed Action

Lots 12 and 13 were referred (EPBC 2021/9069) to the Department of Agriculture, Water and Environment (DAWE). The Referral of the proposed commercial development was accepted by DAWE (now Department of Climate Change, Energy the Environment and Water (DCCEEW)) on 1 November 2021.

The action to clear the native vegetation for the proposed development was determined as a 'Controlled Action' on 25 November 2021. The Controlled Action decision was made for impacts pursuant to Section 18 and 18A; Listed threatened species and communities, specifically:

- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community (Tuart Woodland TEC) – Critically Endangered; and
- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) – Endangered;

The proposed action was approved with environmental conditions by the Minister for the Environment on 17 April 2023 (Appendix 1).

Figure 1: Lots 12 and 13 Lodge Drive East Rockingham

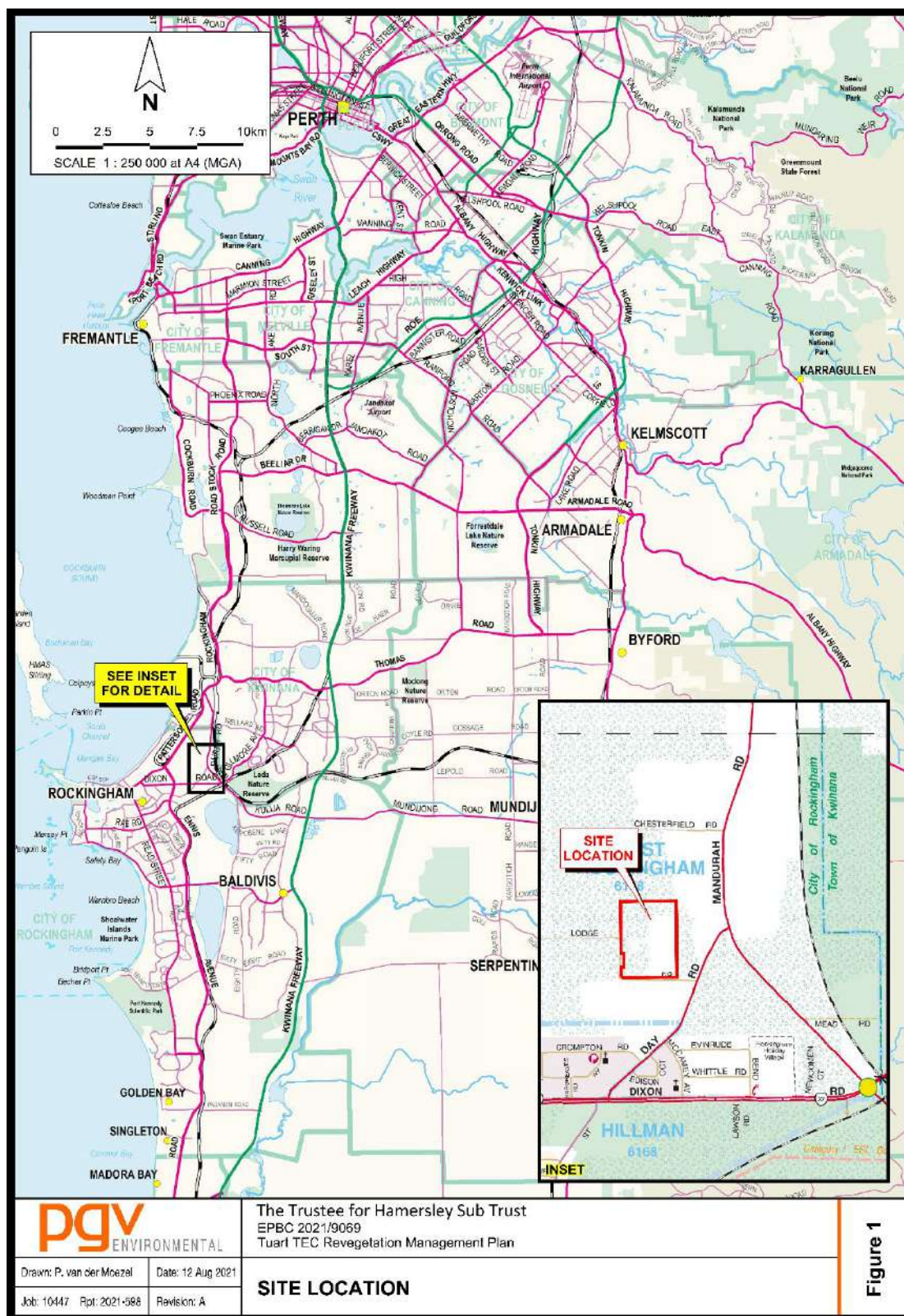
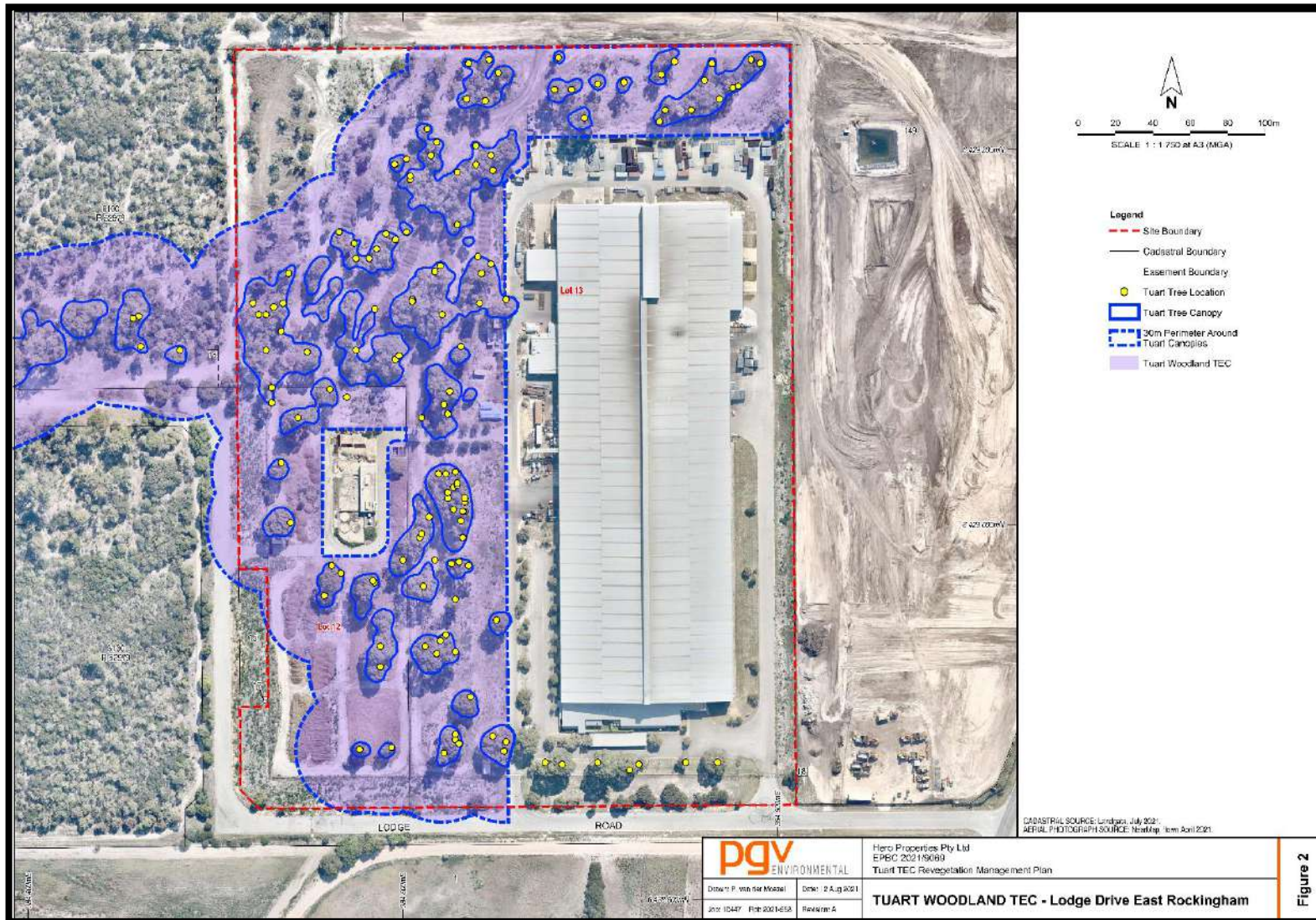


Figure 2: Tuart Woodland TEC on Lots 12 and 13 Lodge Drive East Rockingham



1.3 Requirement for the Plan

Under Condition 4 of the EPBC Approval 2021/9069, the Proponent is required to offset the residual impacts from clearing Tuart Woodland TEC from Lots 12 and 13. Condition 4 states the following:

*4) Prior to **commencement of the action** and to compensate for the residual significant impact under condition 3, the approval holder must submit to the **department** for the **Minister's approval** a Revegetation Management Plan (RMP). The RMP must be included as part of the **Offset Strategy** under condition 3. The environmental outcome of implementing the RMP must be to recreate at least 3.5 ha of the **Tuart Ecological Community** within the Rockingham Lakes Regional Park, 7km south of **development envelope**, that meets the listing criteria for high quality **Tuart Ecological Community** and is self-sustaining by 30 April 2063. The RMP must be consistent with the **department's** Environmental Management Plan Guidelines, and include:*

*a) Details of the relevant **protected matter/s** and a reference to **EPBC Act** approval conditions to which the plan refers.*

b) A table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan.

c) Commitments capable of ensuring that the environmental outcomes are achieved. These commitments must include:

*i) To commence revegetation across at least 3.5ha within 2 years of **commencement of the action**.*

ii) The species and their provenance, and the approximate numbers of individuals of each species to be planted and/or seeded and the approximate timing of planting/seeding and milestones and success criteria for revegetation.

iii) Measures, including for hygiene, ground preparation and weed and herbivore control, and the approximate timing of the measures, to be undertaken prior to, during and following planting/seeding to ensure the success of the revegetation.

d) Reporting and review mechanisms to ensure compliance with the commitments made in the plan.

e) An assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks.

f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.

g) A monitoring program, which must include:

i) measurable performance indicators and completion criteria, which must include:

*I. survival 40 years after planting, of at least 1.6 **Tuart trees** per 100m²*

II. at least 12 local native understorey species per 10 m x 10 m plot

III. native vegetation coverage of at least 80% of the total vegetation cover at least 40 years after planting/seeding

ii) trigger values for corrective actions.

iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators.

iv) proposed corrective actions if trigger values are reached.

*v) the timing and methods of submitting **monitoring data** to the **department**.*

h) Links to other relevant plans or conditions of approval (including state/local government approval conditions).

Under condition 5, the Proponent must provide written evidence that the Western Australian Department Biodiversity, Conservation and Attractions (DBCA) confirm the goals and actions of the Revegetation Management Plan are achievable. Condition 5 states the following:

*5) When submitting the RMP to the **department** for the **Minister's** approval, the approval holder must provide the **department** with written evidence from the Western Australian Department Biodiversity, Conservation and Attractions (DBCA) confirming that DBCA considers that the outcomes and goals specified in the Revegetation Management Plan are achievable using the methods and within the timeframes specified in the Revegetation Management Plan.*

The Proponent cannot commence action until the Revegetation Management Plan has been approved by the Minister. Condition 6 states the following:

*6) The approval holder must not **commence the action** until the **Minister** has approved the Revegetation Management Plan in writing. The approval holder must commence implementing the approved Revegetation Management Plan within 2 years of the **commencement of the action** and thereafter must continue to implement the RMP until the expiry of this approval.*

This Revegetation Management Plan (RMP) has been prepared to satisfy condition 4 of the EPBC Act Approval.

1.4 Scope of Work

PGV Environmental were commissioned by The Trustee for Hamersley Sub Trust to prepare a Tuart Woodland TEC Revegetation Management Plan (RMP) in accordance with the *Environmental Management Plan Guidelines* (DoE, 2014) to set out the strategies for the design, implementation, monitoring and maintenance activities for revegetation works required to offset the residual impacts from clearing 5.49ha of Tuart Woodland on Lots 12 and 13.

This RMP has been prepared in accordance with the condition 4 of the EPBC Act Approval. The DBCA has been consulted during the preparation of this RMP as required under condition 5 of the approval and a letter of support for the RMP is provided at Appendix 2 (to be included when received).

1.5 Report Structure

This RMP has been structured to meet the requirements of Environmental Management Plan Guidelines 2014 (DoE, 2014) as shown in Table 1 and specifically the requirements set out in Condition 4 of the EPBC 2021/9069 Approval.

Table 1: Revegetation Management Plan Structure

Management Issue	Section
Details of the relevant protected matter/s and a reference to EPBC Act approval conditions to which the plan refers.	1.3
A table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan	This table
Commitments capable of ensuring that the environmental outcomes are achieved. These commitments must include: i) To commence revegetation across at least 3.5ha within 2 years of commencement of the action. ii) The species and their provenance, and the approximate numbers of individuals of each species to be planted and/or seeded and the approximate timing of planting/seeding and milestones and success criteria for revegetation. iii) Measures, including for hygiene, ground preparation and weed and herbivore control, and the approximate timing of the measures, to be undertaken prior to, during and following planting/seeding to ensure the success of the revegetation.	5
Reporting and review mechanisms to ensure compliance with the commitments made in the plan	6.3 and 6.4
An assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks.	6.6
Impact avoidance, mitigation and/or repair measures, and the timing of those measures.	6.4
A monitoring program, which must include: - measurable performance indicators and completion criteria, which must include: - survival 40 years after planting, of at least 1.6 Tuart trees per 100m² - at least 12 local native understorey species per 10 m x 10 m plot - native vegetation coverage of at least 80% of the total vegetation cover at least 40 years after planting/seeding - trigger values for corrective actions. - the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators. - proposed corrective actions if trigger values are reached. - the timing and methods of submitting monitoring data to the department. - Links to other relevant plans or conditions of approval (including state/local government approval conditions)	6.1 and 6.2
Roles and responsibilities	8
Time frames for the implementation of the above measures	7
Who will be responsible for the long-term management of the retained land, and how the land will be protected in the long-term	8

1.6 National Standards for Ecological Restoration

The National Standards for the Practice of Ecological Restoration in Australia (the 'Standards') has been prepared by the Society for Ecological Restoration Australasia (SERA) in collaboration with 12 not-for-profit Partner and advisor organisations; all of whom, like SERA, are dedicated to effective conservation management of Australia's native ecological communities (SERA, 2021).

The Standards identifies the principles underpinning restoration philosophies and methods, and outlines the steps required to plan, implement, monitor and evaluate a restoration project to increase the likelihood of its success.

Ecological Restoration is defined under the Standards "as the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed. (SER 2004)". Full recovery is defined as the state whereby all ecosystem attributes closely resemble those of the reference ecosystem.

The fully restored state can only be considered achieved when the ecosystem's attributes are on a secure trajectory (pathway) to highly resemble those of the reference ecosystem without further restoration-phase interventions being needed. After full recovery has been attained, ongoing management interventions would be viewed as a form of ecosystem maintenance.

The Standards have been reviewed and the general principles and terminology has been adopted in this revegetation project. Restoration has been defined in this project as revegetation to ensure consistency with the EPBC Approval and conditions.

2 Tuart Woodland TEC

2.1 Conservation Listing

The Tuart Woodlands and Forests of the Swan Coastal Plain were listed as a Threatened Ecological Community (TEC) with a rating of Critically Endangered under the Commonwealth EPBC Act on 4 July 2019 (for brevity the community will be called the Tuart Woodland TEC in this report). A description of the Tuart Woodland TEC is available through the EPBC Act listing and more specifically in the Tuart Woodland Conservation Advice (DoEE, 2019).

Unlike most ecological communities, the Tuart Woodland TEC is largely defined by the ecological values associated with the tree canopy rather than the diversity of flora and fauna species associated with the Tuarts. This is reflected in the Tuart Woodland Conservation Advice and referral guidelines for the Tuart Woodland TEC (DoEE, 2019).

2.1.1 Description

This nationally protected ecological community is comprised of woodlands or forests within which the presence of Tuart (*Eucalyptus gomphocephala*) trees in the uppermost canopy are the primary defining feature. The community also often contains other native trees such as *Agonis flexuosa* (Peppermint), *Banksia grandis* (Bull Banksia), *Banksia attenuata* (Candlestick Banksia) or *Eucalyptus marginata* (Jarrah), with a substantial diversity of understorey plants (DoEE, 2019).

The ecological community varies in structure, with variable height and canopy closure across its range. It occurs in a variety of forms, most commonly open forest, woodland and open woodland, but can also include other forms including various mallee structural formations (NVIS Technical Working Group, 2017). The Tuart trees themselves include multi-stemmed mallee that can be less than 10 m in height and single trunked trees in a range of heights, generally smaller in the northern part of the range, with large trees of up to 40 m in height, particularly in the southern part of the range. Landscape position also influences the form and size of the trees (Keighery et al 2002). There may also be a substantial sub-canopy, for example dominated by *Agonis flexuosa* (Peppermint). The understorey is often relatively open, including many non-woody species from the Asteraceae, Cyperaceae, Restionaceae and Orchidaceae families as well as lilies (DoEE, 2019).

Plate 3: Tuart Trees - Coastal Mallee Structure Alkimos



Plate 4: Tuart Trees – Tall Structure Mandurah East



2.1.2 Location and Physical Environment

The Tuart Woodland TEC occurs on the Swan Coastal Plain between Jurien in the north and Busselton in the south of South West Western Australia. The ecological community is strongly associated with calcareous soils of the western part of the plain, including those very close to the coast. While it mainly occurs where soils are sandy and well drained, it can also occur in other areas such as on protected swales, saline and freshwater wetlands, close to river banks and on limestone slopes (Keighery *et al.*, 2002; Keighery 2002).

Tuart woodlands and forests are most found on the Spearwood dune systems, also occurring on the Quindalup dune systems and in some places also found on the Bassendean dune systems. It also occurs in between the dunes in sheltered swales and on the margins of wetlands, as well as on the margins of rivers further inland, including some on very saline soils. Tuart is one of the few eucalypts known to be well adapted to calcareous alkaline soils (Gibson *et al.* 2002; Ruthrof *et al.*, 2002), although it occasionally also occurs on the more acidic soils of the Bassendean dunes and Pinjarra Plain (Coates *et al.*, 2002).

Tuarts have complex physiology related to their access and use of water that varies seasonally, as both surface and groundwater availability responds strongly to rainfall (Franks *et al.*, 2007). As Tuart trees mature, they develop deep roots and so are better able to extract groundwater seasonally.

2.2 Creating Tuart Woodland TEC

PGV Environmental has previous experience in successfully creating Tuart Woodland communities on completely cleared paddocks.

The first example was undertaken in Yellagonga Regional Park as an offset for EPBC 2010/5777. The project rehabilitated two areas of Yellagonga Regional Park that were cleared paddocks. Initially, in 2014 topsoil from a recently cleared site was transferred onto the paddock and additional seed was spread onto the site. However, the results from that method did not meet the completion criteria. Therefore, the whole area was planted with **forest** tubestock in the following year. The results of that planting have been very successful, with the completion criteria being met after 5 years. Plate 5 shows one part of the site at the commencement of the rehabilitation programme with site works having just been finished. Plate 6 shows the exact same spot and angle in November. Plate 7 and 8 show another part of the site prior to rehabilitation Plate 7 and 3 years after planting tubestock (Plate 8).

One area of revegetation (350m²) was not as successful and after investigation it was found that this was once the location of a home and outer sheds of a market garden. These learnings were taken and in the second stage of the revegetation project, soil testing was undertaken to identify any issues related to compaction and nutrients and management strategies were put in place for identified areas to improve survival rates.

Plate 5: Yellagonga Site 1 in 2016



Plate 6: Yellagonga Site 1 in 2022



Plate 7: Yellagonga Site 2 in 2015



Plate 8: Yellagonga Site 2 in 2018



The twice-yearly monitoring of the Yellagonga Regional Park rehabilitation project site over 6 years documented the survival of many native tree, mid-shrub and small shrub species. Tuart trees are surviving in all six monitoring plots and are up to 6m tall. Fruit has developed on some trees within 8 years of planting. Table 1 lists the native species present in each of the monitoring plots after 5 years. Each plot is 100m² in size. One plot meets the species diversity of a Tuart Woodland TEC in Moderate Condition, two meet the High Condition category and three meet the Very High condition threshold (Table 2).

The Yellagonga Regional Park rehabilitation project was only an offset for Carnaby's Black Cockatoo and not for the Tuart Woodland TEC. The results provided here demonstrate that it is possible to create a Tuart Woodland TEC without that being the objective of the programme. If the objective were to re-create the TEC, the outcome would be superior with more focus on diversity and stratification of the planted vegetation.

Table 2: Species Recorded in Yellagonga Monitoring Plots

Species	Plot 1	Plot 2	Plot 3	Plot 4	Plot 5	Plot 6
<i>Eucalyptus gomphocephala</i>	4	3	5	1	2	2
<i>Acacia cyclops</i>	+					+
<i>Acacia huegelii</i>				+		
<i>Acacia lasiocarpa</i>		+				+
<i>Acacia pulchella</i>			+		+	+
<i>Allocasuarina fraseriana</i>	+	+				
<i>Allocasuarina humilis</i>	+	+				+
<i>Banksia attenuata</i>				+	+	+
<i>Banksia dallanneyi</i>						+
<i>Banksia menziesii</i>			+	+	+	+
<i>Banksia prionotes</i>		+		+	+	+
<i>Calothamnus quadrifidus</i>	+			+		
<i>Calothamnus sanguineus</i>	+		+	+		+
<i>Corymbia calophylla</i>	+			+	+	+
<i>Eucalyptus marginata</i>		+				+
<i>Eucalyptus tottiana</i>	+	+	+			+
<i>Hakea prostrata</i>	+			+		+
<i>Hakea lissocarpha</i>	+	+				+
<i>Hakea trifurcata</i>		+				+
<i>Jacksonia calcicola</i>	+	+			+	
<i>Jacksonia furcellata</i>					+	+
<i>Kunzea glabrescens</i>	+	+	+	+	+	+
<i>Lomandra maritima</i>	+					
<i>Melaleuca huegelii</i>	+					+
<i>Melaleuca systema</i>	+	+	+	+	+	+
Number of Native Species	15	12	7	11	10	20

The rehabilitated areas in the Yellagonga Regional Park are starting to provide foraging habitat for Black Cockatoos with foraging recorded in 2020 on Marri nuts (Plate 9) (four years after planting) and 2022 on Banksia species (Plate 10 and 11) (six years after planting). The rehabilitation undertaken on the Yellagonga site clearly shows that a rehabilitation program is capable of re-creating a Tuart Woodland that meet the criteria of a TEC in High condition as stated in the Tuart Woodland Conservation Advice, , as well as provide foraging habitat for Black Cockatoos within 6 years.

Plate 9: Foraging on Planted Marri, 2020



Plate 10: Foraging on Planted Acorn Banksia 2022



Plate 11: Foraging on Planted Parrot Bush 2022



The second example of successfully creating a Tuart woodland also started out as an offset for Carnaby's Black Cockatoo (EPBC2010/5337). The revegetation project was undertaken over four areas of bare paddock within the Rockingham Lakes Regional Park, one area of which is directly to the east of the proposed offset site in this report. Rehabilitation work commenced in 2016 and by 2021 the project was deemed to have met the completion criteria due to the number of Tuart plants surviving.

Plate 12 shows one of the bare areas prior to planting. Plate 13 shows a healthy stand of Tuart trees 6 years after planting.

Plate 12: Cleared Paddock that was part of the Revegetation Project



Plate 13: Healthy Tuarts 6 Years Post Planting



The rehabilitation work was not undertaken to create a Tuart Woodland TEC, however some native understorey species were planted in the revegetation programme. Monitoring was undertaken for Tuart tree survival therefore there are no monitoring data over the 5 year trial to assess against the Tuart Woodland TEC condition criteria. A site visit undertaken in January 2023 recorded eight native species in the understorey of one of the rehabilitated areas being:

- *Acacia pulchella* (Prickly Moses);

- *Acacia rostellifera* (Summer-scented Wattle);
- *Acacia saligna* (Coojong);
- *Daviesia* sp.
- *Hakea prostrata* (Harsh Hakea);
- *Jacksonia furcellata* (Grey Stinkwood);
- *Macrozamia riedlei* (Zamia Palm) (mature plants); and
- *Xanthorrhoea preissii* (Grass Tree) (juvenile plant).

As with the Yellagonga Regional Park project, the creation of a Tuart Woodland TEC in the Rockingham Lakes Regional Parks site was not the key objective of the revegetation. Had it been a greater number of understorey species would have been planted. The results here demonstrate that Tuarts can be established easily on this site as well as understorey species.

Previous experience on both sites shows that the use of forestry tubestock over planting seed is more successful in these weedy paddock situations. The use of watering over at least two summers after planting was shown to greatly improve the seedling survival over summer on one site and result in healthy growth in the tubestock. These learnings as well as the use of current best practice management will be utilised in the establishment of the Tuart Woodland TEC vegetation for this project.

The ease at which Tuart trees and many of the Tuart Woodland TEC understorey species are able to be grown on bare sites indicates the completion criteria to meet the definition of the Tuart Woodland TEC would not be difficult to achieve.

The following section provides further detail on the RMP that will guide the site preparation, planting and maintenance of the rehabilitation area in order to meet the objective of restoring the bare paddock to a Very High condition Tuart Woodland TEC.

3 ROCKINGHAM LAKES REGIONAL PARK

Regional Parks comprise Crown lands vested in State government agencies and local governments, as well as private lands where the agreement of the landowner is obtained. As such, regional parks may comprise lands with a variety of tenures and reserve purposes, drawn together for integrated management which is coordinated by DBCA.

Rockingham Lakes Regional Park (RLRP) consists of land comprising Crown reserves vested in the City of Rockingham, the Conservation and Parks Commission of Western Australia and the Minister for Community Services, as well as freehold land owned by the Western Australian Planning Commission (WAPC) and the Western Australian Water Corporation (WAWC), and privately owned land (DEC, 2010).

The RLRP is a network of environmentally and geomorphically significant lands containing coastal, wetland and upland ecosystems that together form a significant recreation and sanctuary zone in what is otherwise an urbanised area (Appendix 3). The vegetation communities in the Park represent a sequence from west to east; from coastal shrubland, permanent and ephemeral wetlands, to Quindalup woodlands including stands of Tuart, Jarrah and Marri.

Four threatened ecological communities listed as Critically Endangered under the EPBC Act occur in the RLRP (Table 3). Two of these communities are listed as Critically Endangered in Western Australia.

Table 3: Threatened Ecological Communities that Occur in the RLRP

Ecological Community	EPBC Listing
Sedgelands in Holocene Dune Swales	Critically Endangered
Thrombolites In Lake Richmond	Critically Endangered
Tuart Woodlands and Forests of the Swan Coastal Plain	Critically Endangered
Banksia Woodlands of the Swan Coastal Plain	Endangered

The RLRP is divided into five management zones including a conservation and protection zone (Appendix 3). Management zones provide a broad guidance to public use and management activities that are appropriate in certain park areas. The RLRP is managed through the RLRP Management Plan (DEC, 2010).

All national parks, conservation areas, regional parks, nature reserves, and other similar reserves are vested in the Conservation and Parks Commission. These reserves are managed on behalf of the Conservation and Parks Commission by the DBCA under section 8a of the *Conservation and Land Management Act 1984* (CALM Act).

PART B

4 OFFSET SITE

4.1 Location

The offset site (Lot 333 Mandurah Road, WAPC REF 1386/2) (the site) is located 7km to the south of Lots 12 and 13 and is within the Rockingham Lakes Regional Park (Bush Forever Site No. 356) at the south-west corner of Safety Bay Road and Mandurah Road. The site is in the vicinity of large areas of mature Tuart woodland (Figure 3).

The site is located on the north-east side of Lake Walyungup and is in a large conservation and protection zone identified as part of Management Area 12 under the RLRP Management Plan.

Tall, open Tuart forests are common to the surrounds of Lake Cooloongup to the north, and Lake Walyungup, Tamworth Hill, Anstey and Paganoni Swamps to the east. Some soils support understorey species such as Candle Banksia (*Banksia attenuata*) under the Tuart. An overstorey of Swamp Banksia (*Banksia littoralis*) occurs at Lake Walyungup (DEC, 2010).

Under the RLRP Management Plan, the management emphasis for Area 12 is as follows:

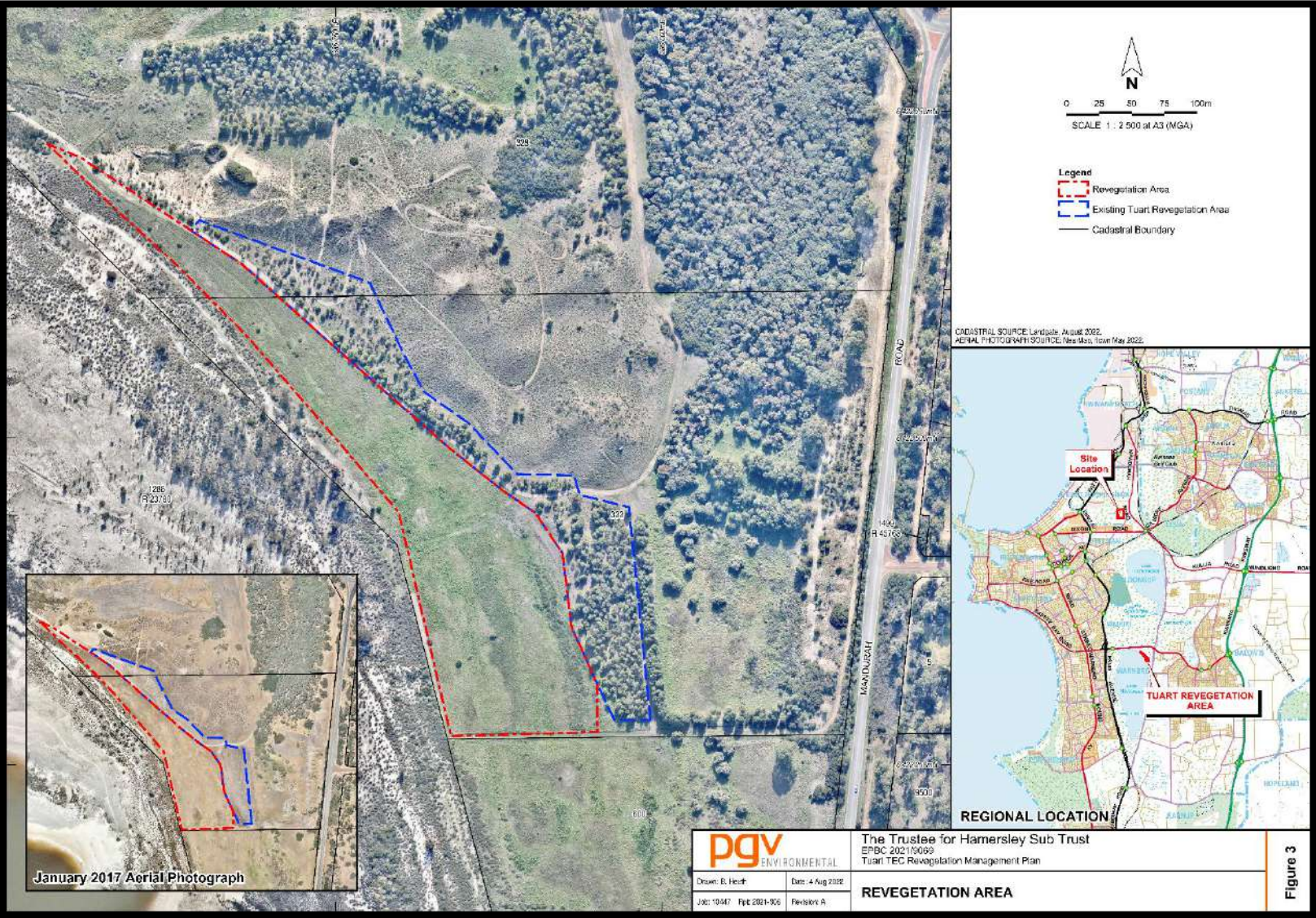
To protect and where possible enhance the conservation values (biota and heritage) as well as landscape qualities of the Park. Priority to be given to restoring and maintaining the natural state of conservation and protection areas.

The site has been discussed with DBCA, the land manager, and the Western Australian Planning Commission (WAPC), the landowner of the proposed offset site. The DBCA has confirmed that the site is satisfactory for revegetation from their perspective and that the WAPC have agreed to the proposed revegetation of the site.

Revegetation of the site will result in the following outcomes:

- An increase the regional and local extent of Tuart Woodland ecological community protected in conservation estate by 3.5ha and complement the existing areas of Tuart Woodland in the Regional Park and adjacent private owned lands;
- The quality and value of the revegetation will be greater than that being cleared from the action site as the Tuart Woodland TEC will have a greater diversity of native species and strata levels than what is currently represented on Lots 12 and 13;
- The offset site is protected for conservation purposes under the Rockingham Lakes Regional Park – management Area 12;
- The offset site will provide a non-contiguous link between other areas of mature Tuart Woodland TEC ensuring a mixed age of Tuart Trees in the Rockingham Lakes Regional Park; and
- The revegetation will provide habitat suitable for Black Cockatoos and increase the regional and local extent of habitat by 3.5ha.

Figure 3: Offset site



4.2 Existing Environment

4.2.1 Land Use

The site was largely cleared prior to 1953 (earliest aerial photography) and completely cleared between 1965 and 1970 for grazing purposes (Plates 14). A small sand mine was in operation for a period in the late 1970s to the north of the site (Plate 15).

The condition site is completely degraded as it was historically cleared for stock grazing purposes, therefore a baseline Flora and Vegetation Survey has not been undertaken as there are only weed species present.

The site is fenced and isn't currently used for any purpose. The site is kept mown for fire management purposes during summer (Plates 16 and 17).

Plate 14: Aerial photography 1965 (Landgate 2023)



Plate 15: Aerial Photography 1979 (Landgate, 2023)



Plate 16: Offset Site Looking South Over Existing Revegetation (August 2022)



Plate 17: Offset site Looking South East (August 2022)



4.2.2 Topography

The site is largely flat at 4-6 m AHD (Plate 18).

Plate 18: Site Topography



4.2.3 Geology and Soils

The soils in western parts of the Park are typical of the Quindalup Dune System. They are calcareous, having been built up from marine deposits, and are deficient in trace elements (Woods, 1988). The most extensive geological unit is the Safety Bay Sands.

DPIRD geological and soil mapping indicates the site sits on the interface between the following (Landgate, 2023):

- Quindalup South Qp1 - Described as complex of nested low relief parabolic dunes with moderate to steep slopes and uniform calcareous sands showing variable depths of surface darkening; and
- Vasse V6 phase which is described as upper level sandy terrace and gently undulating beach ridges with deep grey or bleached pale brown siliceous sands overlying soft shelly limestone generally aligned in a south-west to north-east orientation, with swales between dune ridges.

4.2.4 Hydrology

Groundwater

Groundwater data from the Perth Groundwater Atlas shows that depth to groundwater levels across the site are between 3 and 4m AHD with groundwater flowing towards Lake Walyungup in the west (DoW, 2023).

Surface water

The hydrological characteristics of the site are dominated by the high infiltration capacity of the soils. This results in little to no surface runoff except during extreme events.

Wetlands

The site is located to the east of Lake Walyungup which is mapped as a Conservation category wetland under the Geomorphic Wetlands of the Swan Coastal Plain dataset (Landgate, 2023).

Lake Walyungup is a shallow, saline lake that was once connected to the ocean. The water levels in the wetland are dependent on groundwater flows and rainfall, with depths ranging from 0.5 to 3.5 metres with the deepest areas being in the permanent pools of Lake Walyungup (DEC, 2010).

The dunes separating the Lakes Cooloongup and Walyungup act as groundwater divide such that each lake has a separate hydrological system. Lake Walyungup is a closed system with evapotranspiration the only form of discharge (Tingay and Associates, 1996).

Plate 19: Looking west over offset site to Lake Walyungup



4.2.5 Vegetation

Sub-regional Description

The site is in the Perth subregion of the Swan Coastal Plain, which is characterised as containing mainly Banksia low woodland on leached sands with *Melaleuca* swamps where ill- drained; and woodland of *Eucalyptus gomphocephala* (Tuart), *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri) on less leached soils (Beard, 1990). This subregion is recognised as a biodiversity hotspot and contains a wide variety of endemic flora and vegetation types.

Vegetation Complex

Variations in native vegetation within the site can be further classified into Vegetation Complexes which are a broad level of vegetation description which is based on the underlying geomorphology and rainfall (Hedde *et al.*, 1980). The vegetation is part of the Quindalup Complex which is described as a 'Low dune complex – low closed forest and closed scrub.

Vegetation Types

The site has been cleared for over 70 years and no longer contains any native vegetation. The RLRP Management Plan states the following:

- Tall, open Tuart forests are common to the surrounds of Lakes Cooloongup and Walyungup;
- *Melaleuca systema*, *Phyllanthus calycinus* and Balga (*Xanthorrhoea preissii*) are common around Lakes Cooloongup and Walyungup, and
- Some soils support understorey species such as Candle Banksia (*Banksia attenuata*) under the Tuart. An overstorey of Swamp Banksia (*Banksia littoralis*) occurs at Lake Walyungup (DEC, 2010).

Bush Forever Site No. 356

The Bush Forever Site No. 356 Lake Cooloongup, Lake Walyungup and adjacent bushland, Hillman to Port Kennedy is a reference site on the Swan Coastal Plain. Being a Bush Forever reference site, a number of flora and vegetation surveys have been conducted in BF 356 which can provide information on species composition for the revegetation project.

A description of the vegetation and flora list for Bush Forever Site No. 356 Lake Cooloongup, Lake Walyungup and adjacent bushland, Hillman to Port Kennedy is provided at Appendix 4.

5 REVEGETATION MANAGEMENT PLAN

5.1 Target

The revegetation target is to create 3.5ha of Tuart Woodland that meets the ecosystem attributes of the Tuart Woodland TEC on the action site (Reference Area). The action site meets the criteria to be a threatened ecological community according to the Conservation Listing Advice for the Tuart Woodland and Forests of the Swan Coastal Plain ecological community.

The offset site is in an area of bare ground within the Rockingham Lakes Regional Park that is in close proximity to existing areas of Tuart Woodland TEC. The revegetated area will contain Tuart trees and 12 native understorey species to 3m high that meet the definition of a Tuart Woodland TEC in Very High condition as defined in the Tuart Woodland Conservation Advice (DoEE, 2019). The species mix will include tree and shrub species suitable for Black Cockatoo foraging and potential future breeding.

5.2 Goals

The revegetation goals are to achieve:

- An intact and recovering composition, structure and function of the offset site within five years;
- 3.5ha of revegetated non-contiguous ecological link between the offset site and other Tuart Woodland TEC remnants within 10 years; and
- Foraging evidence of Carnaby's Black Cockatoo within 10 years.

According to the National Standards for the Practice of Ecological Restoration in Australia (2021):

"A restored (revegetated) state is considered to have been achieved when the ecosystems attributes are on a secure trajectory approximating those in the ecological reference area without further repair-phase interventions being needed other than ongoing protection and maintenance. At that stage the ecosystem under recovery would be considered self organising and increasingly resilient to natural disturbances".

5.3 Objectives

The objectives of the RMP are as follows:

- Create a Tuart Woodland TEC in very high condition as defined in the Tuart Woodland TEC Conservation Advice (DoEE, 2019) as follows:
 - ≥80 % of all understorey vegetation cover is native; and
 - At least 12 native understorey species per 0.01 ha (10m x 10m plot or equivalent sample unit) that are likely to reach maturity.
- To revegetate using local provenance native species;
- To control and prevent the spread of woody weeds within the revegetation area;
- Protect tubestock from animal predation;
- Define a monitoring program to demonstrate progress towards meeting the target and goals;

- Outline contingency measures if the monitoring program indicates that the trajectory towards maturity is not being achieved; and
- Outline the reporting requirements.

5.4 Timeframes

Condition 4 of the EPBC approval states:

*Prior to **commencement of the action** and to compensate for the residual significant impact under condition 3, the approval holder must submit to the **department** for the **Minister's approval** a Revegetation Management Plan (RMP). The RMP must be included as part of the **Offset Strategy** under condition 3. The environmental outcome of implementing the RMP must be to recreate at least 3.5 ha of the **Tuart Ecological Community** within the Rockingham Lakes Regional Park, 7km south of **development envelope**, that meets the listing criteria for high quality **Tuart Ecological Community** and is self-sustaining by 30 April 2063.*

The 40 year timeframe has been discussed with DCCEEW and it was recognised that if the revegetation project has met the completion criteria and stated goals, a request can be made to DCCEEW to recognise that the RMP has been completed. It is expected that DCCEEW would seek advice from DBCA for an early completion request.

The RMP has been written for an initial 10 year period with a review of outcomes at 5 years. The five year review will allow for an adaptive management approach to ensure that the project is on target to meet the goals.

5.5 Responsibilities

After the approval of this RMP by DCCEEW, the proponent will prepare the offset site for planting in consultation with DBCA.

The Proponent will retain responsibility for the revegetation of the site until the 3.5ha of Tuart Woodland TEC is on a trajectory to be self-sustaining and the completion criteria has been achieved. This is expected to occur prior to the 40 year timeframe under condition 4.

Management of the offset site will return to the DBCA once the completion criteria have been met and DCCEEW agree that the RMP has been fully implemented.

5.6 Site Preparation

To meet the objectives of this RMP the following rehabilitation approach will be implemented.

5.6.1 Soil Testing

The revegetation consultant will undertake soil testing across the offset site to identify any issues relating to compaction, nutrients and salinity that may impact on the revegetation. If any areas of concern are identified, treatments will be undertaken to minimise the potential impacts. The soil testing results, and proposed treatments will be provided to DBCA prior to site works commencing.

5.6.2 Reference Site Survey

The action site meets the criteria under the Tuart Woodland TEC conservation advice largely due to the size of the area being greater than 5ha. The understorey has been cleared, therefore a understorey species list cannot be prepared.

The project botanist will survey the reference sites that include Tuart Woodland vegetation type in Bush Forever No. 356 Lake Cooloongup, Lake Walyungup and adjacent bushland, Hillman to Port Kennedy and review the species list provided in Table 4. The final species list will be provided to DBCA for information.

5.6.3 Survey and Fencing

The offset site will be surveyed by a licensed survey company and fenced off. Standard construction fencing (1.8m tall) with a rabbit skirt will demarcate the revegetation area. On completion of the project, the construction fencing will be removed unless otherwise determined by DBCA. Replacement standard conservation fencing will not be the responsibility of the project.

The fence and rabbit skirt will assist in keeping the rabbits and kangaroos out of the revegetation area and prevent grazing on tubestock.

A single point of access to allow machinery and management vehicles onto the site will be via a locked double gate. The current access point to the site is off the west bound lanes of Safety Bay Road. This location will be assessed from a safety perspective and if required an alternate access point will be determined with DBCA. The gate will be locked using the recommended master key provided by DBCA.

5.6.4 Weed Control

Weeds have the potential to limit the success of the revegetation works if not managed appropriately. The offset site will be earth worked and subject to the importation of weeds in the period between civil works and revegetation. Weeds can also spread from adjacent areas onto the offset site.

A weed survey will be conducted by the project environmental consultant in accordance with the DBCA Standard Operating Procedure 221 for weed mapping. The survey will provide baseline information on weed species and their location within the offset site.

A site visit will be conducted with the weed control contractor and revegetation contractor prior to commencement of the revegetation program.

Weeds will be controlled approximately 1 month prior to planting. Thereafter weed control will be implemented twice a year (Autumn and Spring) for the first two years after planting to minimise competition and to increase the survival rate of tubestock.

If any priority weeds are observed during site visits, they will be reported immediately to the environmental consultant and or revegetation contractor. Additional weed control will be undertaken to minimise spread of these weeds:

- Narrow Leaf Cottonbush (*Gomphocarpus fruticosus*)
- *Pelargonium capitatum* (Rose Pelargonium);
- *Euphorbia terracina* (Geraldton Carnation Weed);
- Castor Oil Plant (*Ricinus communis*); and
- Pampas Grass (*Cortaderia selloana*).

The following woody weeds will be controlled if there are any observations of these species during the monthly site visits by the revegetation contractor and by the project botanist during the twice yearly compliance monitoring, they will be managed in accordance with the recommended guidelines:

- Japanese Pepper Tree (*Schinus terebinthifolius*);
- Common Fig (*Ficus carica*);
- *Leptospermum laevigatum* (Victorian Tea Tree). and
- Buckthorn (*Rhamnus alaternus*).

The Proponent will undertake a final weed control program prior to handing management of the offset site back to DBCA to ensure that the weed completion criteria have been met.

Herbicide Application

Herbicides will be applied from a four-wheel drive with a mounted spray unit. Spraying will cease immediately if the wind is stronger than 15km/hr or in heavy rainfall. If necessary, a wetting agent will be mixed with the herbicide in accordance with the manufacture's recommendation. A non-toxic, water soluble, biodegradable coloured dye will be added to the herbicide mix that will remain visible for 48 hours after the application. This will alert any visitors to the offset site that herbicide application has been recently applied to the area.

All persons engaged in herbicide spraying will have a current Pesticides Operators License in accordance with the *Health (Pesticide) Regulations 2011*. The following procedures and processes will be followed during applications:

- Erect suitable signage at entrance ways;
- Ensure weather conditions are optimal for the chemicals to be used;
- Select the least toxic chemical for the weed species being controlled;
- Ensure the locations of sensitive habitats are known;
- Ensure target species and locations are well understood to reduce the time spent searching and the amount of chemical used; and
- Follow standard safety measures in the case of accidental spills.

5.6.5 Soil Management

The site will be deep ripped prior to planting to loosen the soil and provides a soft soil surface for the plants to establish their root system. Ripping will also promote aeration of the soil assisting in the breakdown of organic matter and water infiltration.

Any issues in relation to nutrients and salinity and potential treatments will be discussed with DBCA once the soil testing results have been received by the revegetation consultant.

Soil Hygiene measures to prevent the spread of soil borne pathogens, particularly *Phytophthora multivora*, commonly known as Tuart Dieback, which, while not often causing the death of Tuarts unless the tree is already stressed, can impact on the health of Tuart trees.

Standard soil hygiene protocols will be applied by the revegetation consultant and any soil brought on to the site will be Dieback free.

5.7 Vegetation Planting

It is proposed to revegetate using forestry tubestock rather than seed broadcasting and natural propagation. The larger tubestock is more mature and contains a root ball and is found to be more successful in revegetation projects.

5.7.1 Species Selection

The following species list will be used in the revegetation of the Tuart Woodland TEC. The focus of the revegetation effort is to create the *Eucalyptus gomphocephala* dominated overstorey interspersed with *Callitris preissii* and *Allocasuarina fraseriana*. The mid and understorey will include a minimum of 12 species from the Table 4.

The final species list and planting schedule will be prepared and attached to this document by the revegetation contractor once the soil testing has been completed and stock availability is known. The species list will be provided to the DBCA for review.

Table 4: Revegetation Species List

Scientific Name	Common Name	Strata	Black Cockatoo Foraging Species	Black Cockatoo Breeding
<i>Eucalyptus gomphocephala</i>	Tuart Tree	Tree	Yes	Yes
<i>Callitris preissii</i>	Rottnest Pine	Tree	Yes	No
<i>Allocasuarina fraseriana</i>	Western Sheoak	Tree	Yes	No
<i>Banksia littoralis</i>	Swamp Banksia	Tree	Yes	No
<i>Acacia cochlearis</i>	Rigid Wattle	Shrub	Yes	No
<i>Acacia cyclops</i>	Red Eyed Wattle	Shrub	Yes	No
<i>Acacia lasiocarpa</i>	Panjang	Shrub	Yes	No
<i>Acacia pulchella</i>	Prickly Moses	Shrub	Yes	No
<i>Acacia truncata</i>	West Coast Wattle	Shrub	Yes	No
<i>Acacia saligna</i>	Golden Wreath Wattle	Shrub	Yes	No
<i>Banksia sessilis</i>	Parrot Bush	Shrub	Yes	No
<i>Banksia menziesii</i>	Firewood Banksia	Shrub	Yes	No
<i>Hakea prostrata</i>	Harsh Hakea	Shrub	Yes	No
<i>Logania vaginalis</i>	White Spray	Shrub	No	No
<i>Leucopogon parviflorus</i>	Coast Beard Heath	Shrub	No	No
<i>Melaleuca raphiophylla</i>	Swamp Paperbark	Tall Shrub	No	No
<i>Melaleuca teretifolia</i>		Shrub	No	No
<i>Templetonia retusa</i>	Cockies Tongue	Shrub	No	No
<i>Xanthorrhoea preissii</i>	Grass Trees	Shrub	Yes	No

<i>Jacksonia furcellata</i>	Grey Stinkwood	Low Shrub	No	No
<i>Lobelia alata</i>		Low Shrub	No	No
<i>Melaleuca systema</i>	Coastal Honey myrtle	Low Shrub	No	No
<i>Macrozamia riedlei</i>	Zamia Palm	Low Shrub	No	No
<i>Clematis linearifolia</i>	Slender Clematis	Climber	No	No
<i>Hardenbergia comptoniana</i>	Native Wisteria	Climber	No	No
<i>Muehlenbeckia adpressa</i>	Climbing Lignum	Climber	No	No
<i>Baumea juncea</i>	Bare Twigsedge	Sedge (wetter areas)	No	No
<i>Gahnia trifida</i>	Cutting Grass	Sedge (wetter areas)	No	No
<i>Acanthocarpus preissii</i>		Ground Cover	No	No
<i>Conostylis aculeata</i>	Prickly Conostylis	Ground cover	No	No
<i>Olearia axillaris</i>	Coastal Daisy Bush	Ground Cover	No	No

5.7.2 Planting

Tubestock size is important for survival, especially in fast drying nutrient and structure poor sandy soils such as those found at the offset site. Forestry tubes (local provenance where possible) will be used in the revegetation program, as by placing the active roots deeper into the soil profile they are less susceptible to soil moisture fluctuations and survival rates will therefore be optimised.

Planting will occur after the first 100mm of rain has fallen in Autumn to maximise soil moisture levels. Tubestock (rooted forestry tubes 50mm*50mm*120mm) will be hardened, vigorous and free of Dieback, disease, and insect pests at the time of planting and will have adequate and healthy root mass readily evident when removed from the tube.

The planting design and schedule and densities will be determined by the revegetation contractor in consultation with the project environmental consultant. Density of planting of each strata to establish vegetation that is varied to have a level of naturalness as well as to ensure the overstory, understory and climbing species are evenly distributed throughout the rehabilitated area.

Small augers and drills will used to install tubestock and will adhere to the following procedure:

- Individual seedlings will be removed from their container as to minimise damage to leaves, stem and root ball;
- The root ball shall not be exposed or left to dry out and will be planted immediately;
- Fertiliser will be placed in the bottom of the hole (if fertiliser tablets used) and cover with soil to ensure there is no contact between the roots and fertiliser;
- The plant will be placed into the hole and backfill with soil free from weeds, stones, clods of sub soil and other extraneous matter;
- The soil will be lightly compacted by hand or foot to remove air pockets; and

- Plants will be set and level with the adjacent soil ensuring no soil is placed against the stem of the root crown.

Tree guards will not be required as the revegetation area will be fenced with an attached rabbit skirt to prevent rabbits from burrowing under the fence.

5.8 Maintenance

Monitoring of revegetation works is required to determine if any additional management measures are required such as infill planting to meet target indicators, weed control, pest control and fence repairs.

5.8.1 Infill Planting

Infill planting of tubestock may be required if survival rates are low or if improved structure and density is required. The annual autumn and spring monitoring of vegetation quadrats will provide the data to determine if the trajectory towards meeting the goals and final outcome is on track. Any infill planting will be undertaken consistent with the planting procedure stated in Section 5.7.2.

5.8.2 Weed Control

Weed control will be implemented twice a year post planting based on the revegetation contractor's appraisal every three months. Any weed control will follow the procedures set out in section 5.6.4.

If any Priority Weeds and woody weeds occur, they will be controlled on an as needs basis to minimise their spread.

5.8.3 Pest Control

The perimeter fence will keep kangaroos out of the revegetation area. Rabbits will be managed through the installation of a skirt to prevent rabbits from burrowing under the fence. If rabbits get into the revegetation area a baiting program will be undertaken to eliminate them.

5.8.4 Fence and Gate Management

The perimeter fence will be checked by the site contractor on a monthly basis to ensure that it remains intact and that the rabbit skirt is in place. The perimeter fence and gates will be repaired if required during the life of the project.

At the completion of the project the perimeter fence will be removed by the fencing contractor unless otherwise determined by DBCA.

5.8.5 Signage and Access

A sign will be placed at each access point stating that revegetation works are in progress and that entry must be authorised by the site manager. The sign will be provided to DBCA for approval. General public access will not be allowed during revegetation works.

5.8.6 Rubbish Removal

Any rubbish on the site will be removed by the revegetation contractor. If asbestos sheeting is found on the site, DBCA will be contacted and their contractor will be used to remove the sheeting.

5.8.7 Bushfire Management

The site will be managed in accordance with the Fire Response Plan for the RLRP which has been developed by DBCA, in conjunction with FESA and the City of Rockingham. Pre and post fire suppression activity on lands adjacent the offset site is not the responsibility of this project.

Pre suppression works on site will include managing the fuel load from pasture species prior to each upcoming fire season. Fire breaks will not be installed within the revegetation area as this will become an environmentally sensitive area as the Tuart Woodland TEC matures.

Access to the site will be via a locked double gate. The key for the gate will be a DBCA standard master key for access into all fenced areas within the RLRP.

5.9 Management Actions

The management actions listed in Table 5 below outline the prescribed actions for implementing this RMP. The table addresses the actions listed in the Sections 5 and 6 of this document and outlines relevant timing for implementation. The following phases are referred to in the management action table:

- Pre-revegetation (PR) refers to the period prior to any site works on the offset site;
- Construction (C) refers to the period of initial clearing from Lots 12 and 13 Lodge Drive ;
- Revegetation (R) refers to the actions to be undertaken at RLRP; and
- Ongoing (O) refers to an action that should be ongoing for the life of the project.

Table 5: Management Actions

Key Tasks	Phase	Action	Action	Purpose	Priority	Timeframe	Responsibility	Status
Implement RLRP Revegetation Plan	PR	1	Contract a qualified rehabilitation and revegetation contractor to undertake on-ground planning for and revegetation works at RLRP site.	To ensure success of revegetation works	H	Oct 23	Proponent	
Soil Testing	PR	2	Undertake soil testing at offset sites and provide results to DBCA. Discuss potential treatments if there are any areas of concern.	Identify any soil condition issues prior to planting	H	Nov 2023	Revegetation Contractor	
	PR	3	Prepare a plan to address any soil conditions that require treatment prior to planting.	Ensure optimum conditions for plant survival	H	Nov 2023	Revegetation Contractor	
Species Selection Strategy	PR	4	Survey Tuart Woodland vegetation in Bush Forever Site No 356 and revise species list if required based on survey results.	Provide baseline species for Tuart Woodland TEC	H	Oct 2023	Environmental Consultant	
	PR	5	Finalise species selection list based on the Bush Forever Site 356 Reference Sites.	Correct species for Tuart Woodland TEC	H	Dec 2023	Revegetation Contractor/Environmental Consultant	
	PR	6	Review stock availability	Ensure that correct stock will be available for 2024 early winter planting	H	Mar 2024	Revegetation Contractor	
	PR	7	Provide the species list to DBCA for review.	Keep DBCA informed of proposed species to be planted.	H	Jan 2024	Environmental Consultant	
RLRP Planting Schedule	PR	8	Prepare planting design, schedule and costs for RLRP site based on agreed species list	To inform the design of the Tuart Woodland TEC and CBC habitat.	H	Feb 2024	Revegetation Contractor	
	PR	9	Discuss with the DBCA and agree on planting design and schedule	To have an agreed approach to the revegetation	H	Mar 2024	DBCA/Revegetation Contractor	

	PR	10	Order forestry Tube Stock as per agreed schedule	Ensure forestry tubestock is available for 2024 planting.	H	Sep 2024	Revegetation Contractor	
	PR	11	Provide the planting design and species list in the annual Compliance Report provided to the Department to meet Condition 25 of the EPBC 2021/9069 approval.	Keeping the Department informed an ensuring compliance with EPBC 2021/9069 Approval	M	April 2024	Proponent/ Environmental Consultant	
Site Works	PR	12	Revegetation contractor to meet with fencing and civil contractors to discuss site works and fencing requirements. ensure correct style of fencing is constructed.	Strong communication between fencing, civil and revegetation contractors to ensure that fencing and site works meet the requirements for native revegetation.	H	Jun 2024	Revegetation Contractor	
	PR	13	Discuss locked access points with DBCA	Get DBCA master key for gates	H	Feb 2024	Revegetation Contractor	
	PR	14	Survey site and fence with 1.8m construction style fence with rabbit curtains.	Prevent access and grazing animals from entering the site	M	Aug 2024	Revegetation Contractor	
	R	15	Implement weed management, ripping, and fencing as per site works plan	Site to be prepared prior to first delivery of topsoil	M	Sep 2024	Revegetation Contractor	
	R	16	Minimise the use of herbicides in riparian areas.	Protect wetland ecosystems from herbicide run-off	H	Sep 2024	Revegetation Contractor	
	R	17	DBCA approved sign indicating that rehabilitation work is occurring should be erected on access gates to site (e.g. No access – rehabilitation in progress).	Keeping the public informed	L	April 2024	Revegetation Contractor/DBCA	
	R	18	Tubestock planting as per schedule	To maximise species for Tuart Woodland TEC and CBC habitat	H	May/June 2025	Revegetation Contractor	
	R	19	Undertake short term monitoring of weed control success to identify any outbreaks following weed removal or suppression.	To manage weed outbreaks post planting	H	Jun-Sep 2025	Revegetation Contractor	

	R	20	Monitor for any of the listed woody weeds on the site.	Manage outbreak of woody weeds post planting.	H	Ongoing	Revegetation Contractor/Environmental Consultant	
	PP	21	Implement vegetation monitoring program on a twice-yearly basis (Autumn and Spring)	Monitor success of revegetation	M	Oct 2025	Environmental Contractor	
	PP	22	Provide annual monitoring report to DBCA and include in DCCEEW Compliance Report for EPBC 2021/9069.	Show status of project	H	Apr 2025	Environmental Contractor	
	PP	23	Supplement with infill planting when required.	To ensure completion criteria is met	M	Ongoing	Revegetation Contractor/Environmental Consultant	
	R and PP	24	Site maintenance to be carried out. This will include maintenance of perimeter fence, weed management and rabbit/kangaroo control as required on a monthly basis.	To minimise impacts to new Tuart TEC Woodland	M	Ongoing	Revegetation Contractor	
	R and PP	25	Maintenance issues to be reported to the Environmental Consultant	Keep informed of any issues to ensure they are adequately addressed.	M	Ongoing	Revegetation Contractor	
	R and PP	26	Keep fuel load weeds mown prior to fire seasons.	Manage Fire risk	M	Ongoing	Revegetation Contractor	
	PR and P	27	Remove all waste from site, consult with DBCA if asbestos is located.	Keep site clean	M	Ongoing	Revegetation Contractor	
Reporting	R and PP	28	Prepare annual monitoring report on project status.	Project progress	H	Annual	Environmental Contractor	
	R and PP	29	Provide monitoring report to DBCA and DCCEEW	Project progress	H	Annual	Environmental Contractor	
	PP	30	Provide a 5 year Progress Report to DCCEEW and DBCA	Project progress	H	2029	Environmental Contractor	

Project Completion	PP	31	Once completion criteria and goals have been met, inform DBCA and DCCEEW and request recognition that the project is completed.	Project Complete	M		Environmental Contractor/Proponent	
	PP	32	The Proponent will undertake a final weed control program prior to handing management of the offset site back to DBCA to ensure that the weed completion criteria have been met. Remove fence on advice from DBCA.	Project Complete	M		Revegetation Contractor/Proponent	
	PP	32	Inform DBCA that management of the revegetation is complete	Hand revegetation back to DBCA	M		Environmental Contractor/Proponent	

6 MONITORING

6.1 Completion Criteria

In order for a site to be considered revegetated (or progressing satisfactorily towards being revegetated) a number of factors need to be considered in both the short and long term, with the most appropriate factors to the offset site being:

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

By setting target levels for these factors, a quantitative measure of progress can be made. Should the required levels not be achieved, not only will this trigger remedial action, but will also determine the extent of the action required.

The following indicators have been established using the SMART criteria which is accepted as common best practice in the field of monitoring and evaluation (Table 6).

Table 6: SMART Criteria

Criteria	Definition
Specific	The indicator clearly and directly relates to the outcome. It is described without ambiguities. Parties have a common understanding of the indicator. (
Measurable	The indicator has the capacity to be counted, observed, analysed, tested, or challenged.
Achievable	The indicator is achievable if the performance target accurately specifies the amount or level of what is to be measured in order to meet the result/outcome. The indicator should be achievable both as a result of the program and as a measure of realism. The target attached to the indicator should be achievable.
Relevant	An indicator should be a valid measure of the result/outcome and be linked through research and professional expertise. The best way to think about relevance is to ensure that there is a relationship between what the indicator measures and the theories that help create the outcomes for the client, program, or system.
Time	The system [monitoring and evaluation system and related indicators] allows progress to be tracked in a cost-effective manner at the desired frequency for a set period, with clear identification of the particular stakeholder group(s) to be affected by the project or program.

6.1.1 Tuart Woodland TEC Completion Criteria

Completion criteria to be achieved within 10 years will ensure the creation of the Tuart Woodland TEC meets the definition of High quality as per the Tuart Woodland conservation listing advice. The goals are:

- Survival of, on average, at least 1.6 Tuart trees per 100m²;
- Diversity of at least 12 understorey species (includes species to 3m in accordance with the Tuart Woodland Conservation Advice) in each monitoring quadrat (10m x 10m plot); and
- Native vegetation coverage of 80% of the overall vegetation cover or maturing to a cover of 80%.

6.1.2 Weed Species

The listing of a species as a Declared Plant and the rankings assigned to various weeds within the *Environmental Weed Strategy for Western Australia* (Department of Conservation and Land Management, 1999) based on weed distribution, invasiveness and impacts, allows the weeds present at the site to be prioritised into groups.

A weed species list will be prepared for the offset site.

Weed Completion Criteria:

- No introduction of Priority weed species to the offset site;
- No introduction of the following woody weeds
 - Japanese Pepper Tree (*Schinus terebinthifolius*);
 - Common Fig (*Ficus carica*); and
 - Buckthorn (*Rhamnus alaternus*);
- Maintain weed cover to less than 20% of the overall vegetation cover (in each 10m x 10m plot or equivalent sample unit).

6.2 Monitoring

Due to the long timeframe for the revegetation project (40 years), the monitoring period has been set for an initial five-years. On completion of the first five years, the RMP and progress towards meeting the goals will be reviewed and a progress report prepared for DECCEEW and DBCA.

If the trajectory towards meeting the revegetation goals is on track the monitoring frequency may be revised for the next five year period.

On completion of 10 years (or less), should the revegetation goals and completion criteria be achieved, the proponent will discuss the completion of the revegetation project with DECCEEW and DBCA.

6.2.1 Quadrat Establishment and Monitoring

Vegetation monitoring will be conducted with permanent quadrats (approximately 100m²) which will be marked on site with fence droppers at each corner. The number and location of quadrats will be determined once revegetation has been completed but should be a minimum of five. Quadrats will be established in areas that provide a good representative sample of the revegetation activities.

Monitoring data obtained from the quadrats will be used to assess the success of revegetation against completion criteria in section 6.1.

The quadrats will be monitored (spring and autumn) post revegetation to establish a baseline and on an annual basis. The following parameters will be recorded including:

- A photo to be taken on the south-western corner;
- Invasive weed species;
- Invasive weed density (% cover) if present;
- Native species present;
- Number of native plants per species;
- Native species health;
- Vegetation condition; and
- Visual signs of disturbance.

6.2.2 Broader Vegetation Monitoring

Vegetation monitoring will be conducted across the entire site on an annual basis using aerial photography to determine any areas where the native vegetation growth appears to be poor. Should any areas of greater than 250m² be identified where plant growth is sparse (no Tuart seedlings and very few other native plants) the project botanist and revegetation consultant will determine the reasons for the poor growth. Contingency planning will be implemented as per section 6.4.

6.3 Reporting

6.3.1 Annual Compliance Reporting

Monitoring results will be provided in an annual monitoring report for the revegetation area. Monitoring reports will be compiled within three months following each formal monitoring event (timing is outlined in Section 8 below). These reports will be sent to DCCEEW attached to the Yearly compliance report prepared in accordance with the EPBC approval and will:

- Outline the date and description of works undertaken during the reporting period;
- Record and evaluate the success of revegetation works compared to the completion criteria, in a consistent manner;
- Identify any follow up remedial or maintenance works to be undertaken to meet the completion criteria; and
- Set out a program for the remedial or maintenance works.

6.3.2 Five Year Progress Report

As indicated in section 6.2, a Progress Report will be provided summarising the RMP implementation over the first five years, the progress towards meeting the project goals, any contingency actions taken and recommendations on monitoring for the next five year increment. This will allow for an adaptive management approach to the revegetation project.

The progress report will be provided to DBCA for information.

6.4 Contingency Planning

Contingency planning will detail trigger levels that would require the contingency plan to be implemented that will be measured during monitoring or if an event occurred such as fire or vandalism.

If there is a decline in the vegetation health or condition within rehabilitation site as measured during monitoring and compared to previous monitoring results, the following contingency plan will be implemented:

1. Consider potential causes for decline in vegetation health or increase in weed cover.
2. Determine if the decline may be within normal limits, ie a result of seasonal fluctuations or timing of scheduled weed control.
3. If decline in health is not within normal limits, determine the most likely cause of this decline.
4. Prepare a management plan to remediate and mitigate the impacts on the vegetation once the source of the decline is known, for example if the site becomes infested with dieback prepare a dieback management plan detailing the treatment using phosphite and ongoing monitoring and testing to ensure the disease does not cause the loss of Tuarts.
5. Undertake infill planting and weed management once the source of the decline has been mitigated.
6. Continue monitoring vegetation health and the effectiveness of remedial actions.

If new infestations of invasive weeds are recorded in the rehabilitation site the following will be undertaken:

1. Investigation of the potential sources of the weeds.
2. If the weeds originate in adjacent areas:
 - Liaison with DBCA to manage the weeds in the adjacent area; and
 - The weeds occurring on the site will be managed by an appropriate weed contractor that is proficient in managing weeds in bushland.
3. Follow-up monitoring will be undertaken on a monthly basis to ensure the weeds have been managed.

If the site is damaged by fire the following will be undertaken:

1. Consider potential causes of the fire and liaise with DBCA if the cause can be mitigated to prevent further fires.
2. Review the recovery of the vegetation including weed emergence and resprouting.
3. Manage any weed emergence in accordance with the weed contingency plan.
4. If the planted tubestock do not survive then arrangements to be made for replanting in the following autumn.
5. Ongoing monitoring of recovering and/or planted tubestock until the completion criteria are met.

If the site is damaged by vandalism the following will be undertaken:

1. Consider potential access point and liaise with DBCA if additional fencing or other access restriction methods should be employed.
2. Repair any fences that could have provided the access point.
3. Review the recovery of the vegetation including weed emergence and resprouting.
4. Manage any weed emergence in accordance with the weed contingency plan.
5. If the planted tubestock do not survive then arrangements to be made for replanting in the following autumn.
6. Ongoing monitoring of recovering and/or planted tubestock until the completion criteria are met.

All contingency actions and outcomes, if required, will be reported in the annual compliance report.

6.5 Implementation

The Trustee for Hamersley Sub Trust has overall responsibility to implement this RMP. The breakdown of responsibilities is shown below in Table 7.

Table 7: Responsibilities

Action	Responsibility
Contracting the RMP	Realside Ovest
Civil Works	Realside Ovest/Mecon Construction
Fencing revegetation area	Realside Ovest/Mecon Construction
Finalise the RMP	Project Environmental Consultant
Ongoing Weed Control	Licensed Weed Contractor
Planting	Revegetation Contractor
Compliance Monitoring and Reporting	Qualified Botanist and Project Environmental Consultant
Maintenance Monitoring (fencing, rubbish removal, weed management)	Revegetation Contractor
Implementation of Contingency Measures	Revegetation Contractor and Project Environmental Consultant
Liaison with DBCA	Revegetation Contractor and Project Environmental Consultant
Liaison with DCCEEW	Project Environmental Consultant

The RMP will be considered to be fully implemented at the completion of all management actions and when all completion criteria have been met and approved by DCCEEW.

The EPBC approval has an end date of 2063, however it is anticipated that the revegetation project will be completed well before this date. Once the project is satisfactorily completed the Proponent will request that DCCEEW recognise that the project has been fully implemented.

6.6 Risk Assessment

A risk assessment of the potential impacts to the Tuart Woodland TEC discussed above has been undertaken, based on the definitions in Table 8 and the risk matrix provided in Table 9. The risk assessment has calculated the residual risk of the proposed impacts when implementation of the proposed mitigation measures is considered. The results of the risk assessment are provided in Table 10.

Table 8: Potential Impacts to Tuart Woodland TEC

Qualitative measure of likelihood (how likely is it that this event/circumstance will occur after management activities are implemented)	
Highly likely (E)	Is expected to occur in most circumstances
Likely (D)	Will probably occur during the life of the project
Possible (C)	Might occur during the life of the project
Unlikely (B)	Could occur but considered unlikely or doubtful
Rare (A)	May occur in exceptional circumstances
Qualitative measure of consequences (what will be the consequence/result if the issue does occur)	
Minor (1)	Minor incident of environmental damage that can be reversed (<i>e.g. short-term delays to achieving plan objectives, implementing low-cost, well-characterised corrective actions</i>)
Moderate (2)	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts (<i>e.g. short term delays to achieving plan objectives, implementing well-characterised, high-cost/effort corrective actions</i>)
High (3)	Substantial instances of environmental damage that could be reversed with intensive efforts (<i>e.g. medium-long term delays to achieving objectives, implementing uncertain, high-cost/effort corrective actions</i>)
Major (4)	Major loss of environmental amenity and real danger of continuing (<i>e.g. plan objectives are unlikely to be achieved, with significant legislative, technical, ecological and/or administrative barriers to attainment that have no evidenced mitigation strategies</i>)
Critical (5)	Severe widespread loss of environmental amenity and irrecoverable environmental damage (<i>e.g. plan objectives are unable to be achieved, with no evidenced mitigation strategies</i>)

Table 9: Risk Assessment Matrix

		Likelihood				
		Rare (A)	Unlikely (B)	Possible (C)	Likely (D)	Highly Likely (E)
Consequences	Minor (1)	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
	Moderate (2)	Acceptable	Acceptable	Acceptable	Moderate	Moderate
	High (3)	Acceptable	Moderate	Moderate	High	High
	Major (4)	Moderate	Moderate	High	High	Extreme
	Critical (5)	Moderate	High	High	Extreme	Extreme

Inherent risk to the MNES assumes all controls are not implemented in accordance with best practice. The residual risk is determined with the development and implementation of this RMP and the VFMP that are specifically developed to mitigate the onsite impacts on MNES. As the impacts are to the Tuart Woodland TEC vegetation as well as vegetation that provides Black Cockatoos Habitat the risks are considered for the two MNES. The risk analysis is provided in Table 10. All risks have been managed and are Acceptable.

Table 10: Risk Analysis

Potential Impact	Inherent Risk			Controls	Residual Risk		
	Likelihood	Consequence	Significance		Likelihood	Consequence	Significance
Direct impacts from clearing or damaging native vegetation on the adjacent area is unlikely as surrounding area is managed for conservation so clearing is unlikely.	A	3	Acceptable	No Management Required	A	3	Acceptable
Damage to the root zones on vegetation in the adjacent area unlikely due to the currently cleared track providing separation	A	3	Acceptable	No management required	A	3	Acceptable
The spread of weeds from the site into the adjacent area	B	3	Moderate	Access control, regular monitoring and control if required as per the RMP	A	2	Acceptable
The spread of dieback from the offset site into the adjacent area	C	3	Moderate	Hygiene procedures as per RMP	B	2	Acceptable
Damage to tubestock from soil salinity and nutrient deficiencies	C	3	Moderate	Undertake soil testing and treatment if required and use of salt tolerant species in areas of concern.	B	2	Acceptable
Rubbish blowing off the offset site into the adjacent area	B	1	Acceptable	Adopting clean work practices as per the RMP	B	1	Acceptable
Increased illegal dumping	A	1	Acceptable	No controls proposed – currently dumping is not an issue due to distance from road	A	1	Acceptable
Fire damage	C	3	Moderate	Ensure that fuel loads are kept to a minimum prior to fire season and that fire breaks are constructed on neighbouring lots in accordance with City of Rockingham fire management policy.	A	2	Acceptable
Insect and Pathogens	C	2	Acceptable	No control proposed however if damage to plant stock is observed, DBCA will be informed	C	2	Acceptable

7 TIMING

Implementation of this RMP is expected to commence in 2023, and revegetation to begin in 2025 at the beginning of winter to ensure optimum soil moisture conditions for successful planting. Activities of the Project are summarised in Table 11 for the first five years of the project. The table has not been extended out for the full 40 years as each year is repetitive, and the project may reach the completion criteria and cease prior to the 40 year period upon agreement with DCCEEW.

After the first five years, depending on the progress toward meeting the project goals the monitoring frequency may be revised down for the next five year monitoring period. This will be discussed with DCCEEW and DBCA in the five year progress report.

Planting activity is anticipated to be completed after year 3. Annual monitoring (spring and autumn) and reporting (yearly) of the vegetation will continue by the Proponent until the RMP has been satisfactorily implemented. DCCEEW will be informed on the completion of the RMP and that any future maintenance of the site will be managed by the DBCA under the Rockingham Lakes Regional Park Management Plan.

Table 11: Indicative Revegetation Schedule

Activity	Year 1				Year 2				Year 3				Year 4				Year 5			
	summer	Autumn	Winter	Spring	summer	Autumn	Winter	Spring	summer	Autumn	Winter	Spring	summer	Autumn	Winter	Spring	summer	Autumn	Winter	Spring
Civil Works																				
Weed Control																				
Appraise Vegetation condition for Brushing																				
Plant Tube Stock																				
Follow Up weed Control																				
Set up Quadrats																				
Monitoring																				
Infill Planting																				
Annual Weed Control																				

8 SUMMARY

This RMP has been prepared to guide the target of achieving the creation of 3.5ha of Tuart Woodland TEC and Black Cockatoo foraging habitat as an offset for clearing Tuart Woodland and Black Cockatoo habitat at Lots 12 and 13 Lodge Drive.

The goals of the RMP are as follows:

- An intact and recovering composition, structure and function of the offset site within five years;
- 3.5ha of revegetated non-contiguous ecological link between the offset site and other Tuart Woodland TEC remnants within 10 years; and
- Foraging evidence of Carnaby's Black Cockatoo within 10 years.

The goals will be achieved through the following objectives:

- Create a Tuart Woodland TEC in very high condition as defined in the Tuart Woodland TEC Conservation Advice (DoEE, 2019) as follows:
 - ≥80 % of all understorey vegetation cover is native; and
 - At least 12 native understorey species per 0.01 ha (10m x 10m plot or equivalent sample unit) that are likely to reach maturity.
- To revegetate using local provenance native species;
- To control and prevent the spread of woody weeds within the revegetation area;
- Protect tubestock from animal predation;
- Define a monitoring program to demonstrate progress towards meeting the target and goals;
- Outline contingency measures if the monitoring program indicates that the trajectory towards maturity is not being achieved; and
- Outline the reporting requirements.

The proponent will meet these goals through the implementation of this RMP which includes the planting of Tuarts at a density of 1.6 trees per 100m² and other understorey species in the first year of planting with infill planting as required in the following three years. Weed and pest control measures will be implemented to increase the likelihood of revegetation success. Contingency measures have been provided to ensure the success of the revegetation.

9 REFERENCES

- Beard (1990) Vegetation Survey of Western Australia 1:1000000 Vegetation Series Swan University of Western Australia Press
- Bolland, M. (1998) Soils of the Swan Coastal Plain. Department of Agriculture. Bunbury, Western Australia.
- Davidson, W.A. (1995) 'Hydrogeology and groundwater resources of the Perth region, Western Australia', Western Australia Geological Survey, Bulletin 142 Perth Western Australia
- Department of Agriculture, Water and Environment (2022) Referral guideline for 3 WA threatened black cockatoo species. Commonwealth of Australia
- Department of Agriculture, Water and the Environment (DCCEEW) (2022) Offsets Assessment Guide <https://www.environment.gov.au/epbc/publications/epbc-act-environmental-offsets-policy> Accessed April, 2021 Australia
- Department of Agriculture, Water and the Environmental (DCCEEW) (2021) Protected Matters Search Tool. <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf> Accessed April 2021 Commonwealth of Australia.
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017a) Fauna Profile – Baudin's cockatoo *Calyptorhynchus baudinii*. Retrieved from <http://www.dbca.wa.gov.au/> Perth, Western Australia
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017b) Fauna Profile – Carnaby's cockatoo *Calyptorhynchus latirostris*. Retrieved from <http://www.dbca.wa.gov.au/> Perth, Western Australia
- Department of Biodiversity, Conservation and Attractions (DBCA) (2017c) Fauna Profile – Forest red-tailed Black Cockatoo *Calyptorhynchus banksii naso*. Retrieved from <http://www.dbca.wa.gov.au/> Perth, Western Australia
- Department of Biodiversity, Conservation and Attractions (DBCA) (2018) Remnant Vegetation Extent Stats 2018 Perth western Australia
- Department of Environment and Conservation (2012) National Recovery Plan for the Woylie. State of Western Australia, Department of Environment and Conservation, 2012
- Department of Environment and Conservation (2012a). Chuditch (*Dasyurus geoffroii*) Recovery Plan. Wildlife Management Program No. 54. Department of Environment and Conservation, Perth, Western Australia.
- Department of Primary Industries and Regional Development (DPIRD) (2021) Natural Resource Information. Accessed April 2021 <http://maps.agric.wa.gov.au/nrm-info/> Government of Western Australia, Perth.

Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) (2012) Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris*; Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*; Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banksii naso*. Commonwealth of Australia.

Department of the Environment and Energy DoEE, (2019) Approved Conservation Advice (incorporating listing advice) for the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain ecological community. Australia

Department of Water and Environmental Regulation (DWER) (2023) Perth Groundwater Map. Accessed October 2022 <https://maps.water.wa.gov.au/#/webmap/gwm> Government of Western Australia, Perth.

Glossop, B., Clarke, K., Mitchell, D. and Barrett, G. (2011) Methods for mapping Carnaby's cockatoo habitat, Department of Environment and Conservation Perth, Western Australia

Government of Western Australia (2000) Bush Forever - Keeping the Bush in the City. Volume 2: Directory of Bush Forever Sites. Perth, Western Australia.

Groom (2011) Plants Used by Carnaby's Black Cockatoo. Published by the Department of Environment and Conservation. Perth, Western Australia.

Hedde, E.M., Loneragan, O.W. and Havel, J.J. (1980) Vegetation complexes of the Darling System, Western Australia. In Atlas of Natural Resources of the Darling System of Western Australia. Department of Conservation and Environment. Perth, Western Australia.

Johnstone, R. E. C. and Kirkby, T. (2011) Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) on the Swan Coastal Plain (Lancelin–Dunsborough), Western Australia. Studies on distribution, status, breeding, food, movements and historical changes. Report for the Department of Planning, Perth, Western Australia.

Landgate (2023) Historical Aerial Photography Accessed April 2023 <https://www.landgate.wa.gov.au/bmvf/app/mapviewer/> Government of Western Australia, Perth.

National Map (2023) Map-Based Access to Spatial Data from Australian Government Agencies <http://nationalmap.gov.au/#wa> Accessed April 2021 Government of Australia

National Restoration Standards'. It should be cited as 'Standards Reference Group SERA (2021) National Standards for the Practice of Ecological Restoration in Australia. Edition 2.2. Society for Ecological Restoration Australasia. Available from URL: www.seraustralasia.org.

SLIP (2023) Map based Access to spatial Data from Western Australian State Agencies <https://maps.slip.wa.gov.au/> accessed November 2021

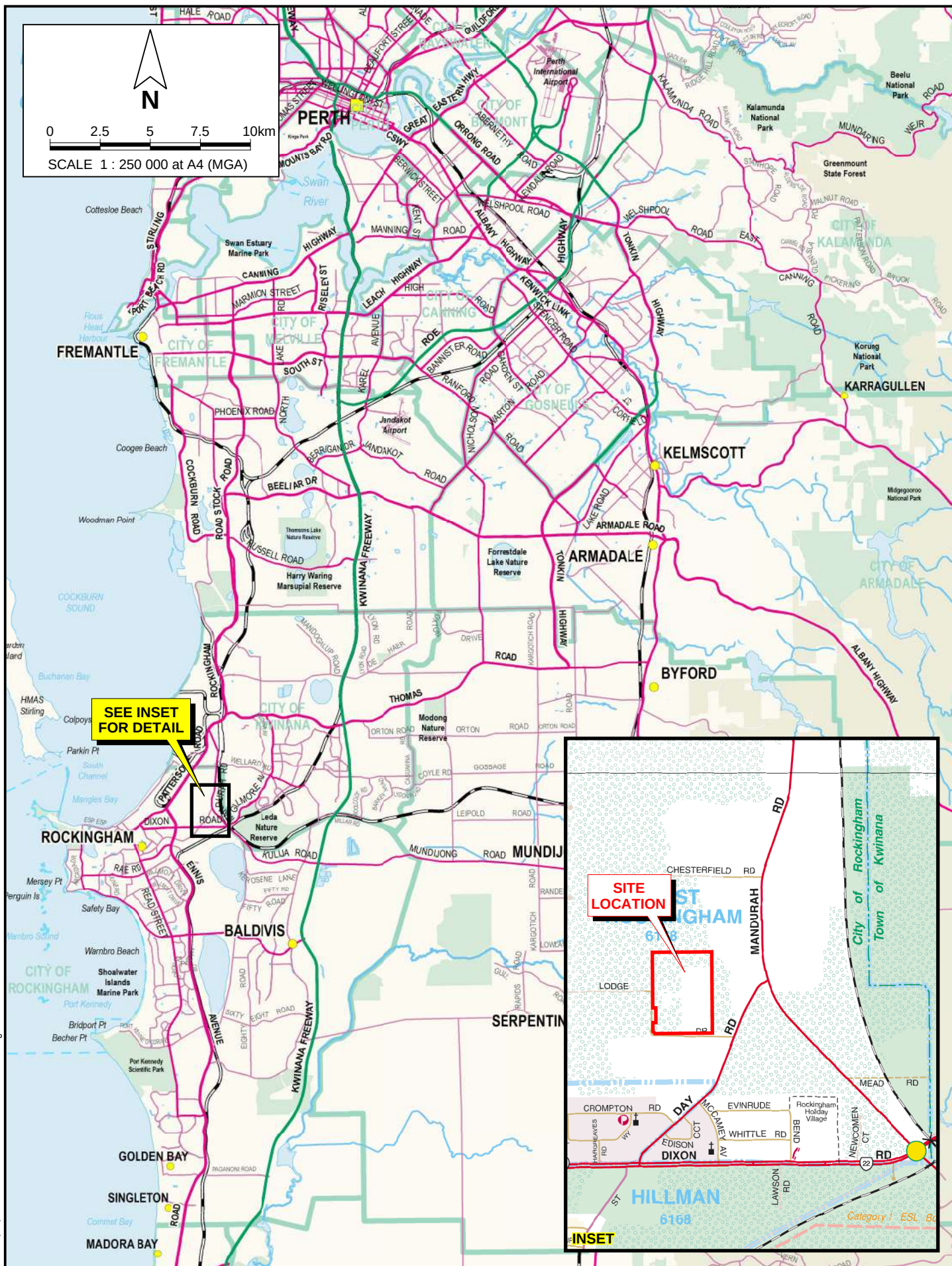
Western Australian Local Government Association (WALGA) (2013) Remnant Vegetation Extent Stats Sept 2011 Perth western Australia

EPBC 2021/9069
Lot 333 Mandurah Road Warnbro
Tuart TEC Revegetation Management Plan
16 May 2023

Tuart Response Group (2002) An Atlas of Tuart Woodlands on the Swan Coastal Plain in Western
Australia Perth, Western Australia.

FIGURES

FIGURES



PINPOINT CARTOGRAPHICS (08) 9562 7136 2021-598-401.dgn

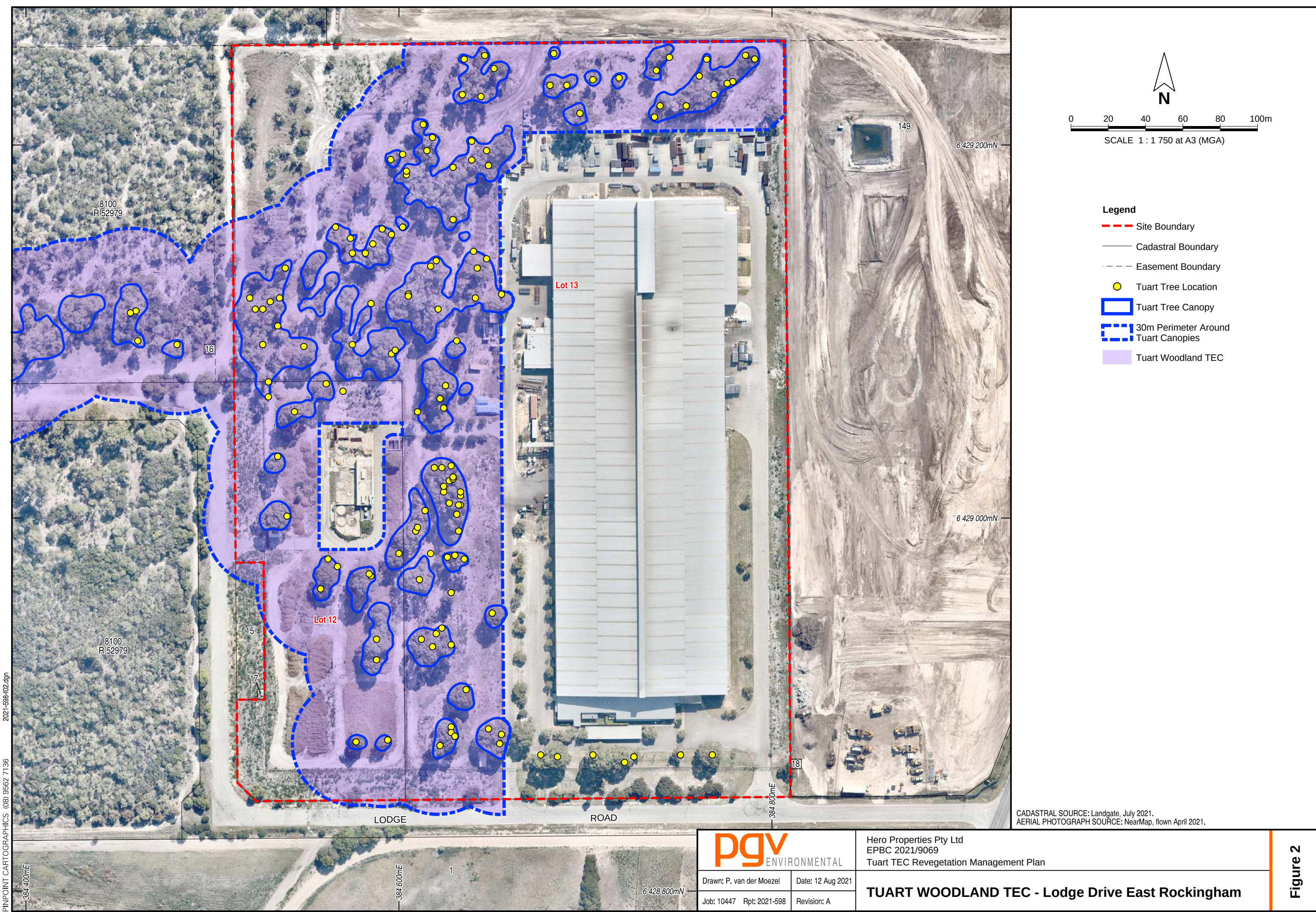
pgv ENVIRONMENTAL

The Trustee for Hamersley Sub Trust
EPBC 2021/9069
Tuart TEC Revegetation Management Plan

Drawn: P. van der Moezel	Date: 12 Aug 2021
Job: 10447 Rpt: 2021-598	Revision: A

SITE LOCATION

Figure 1

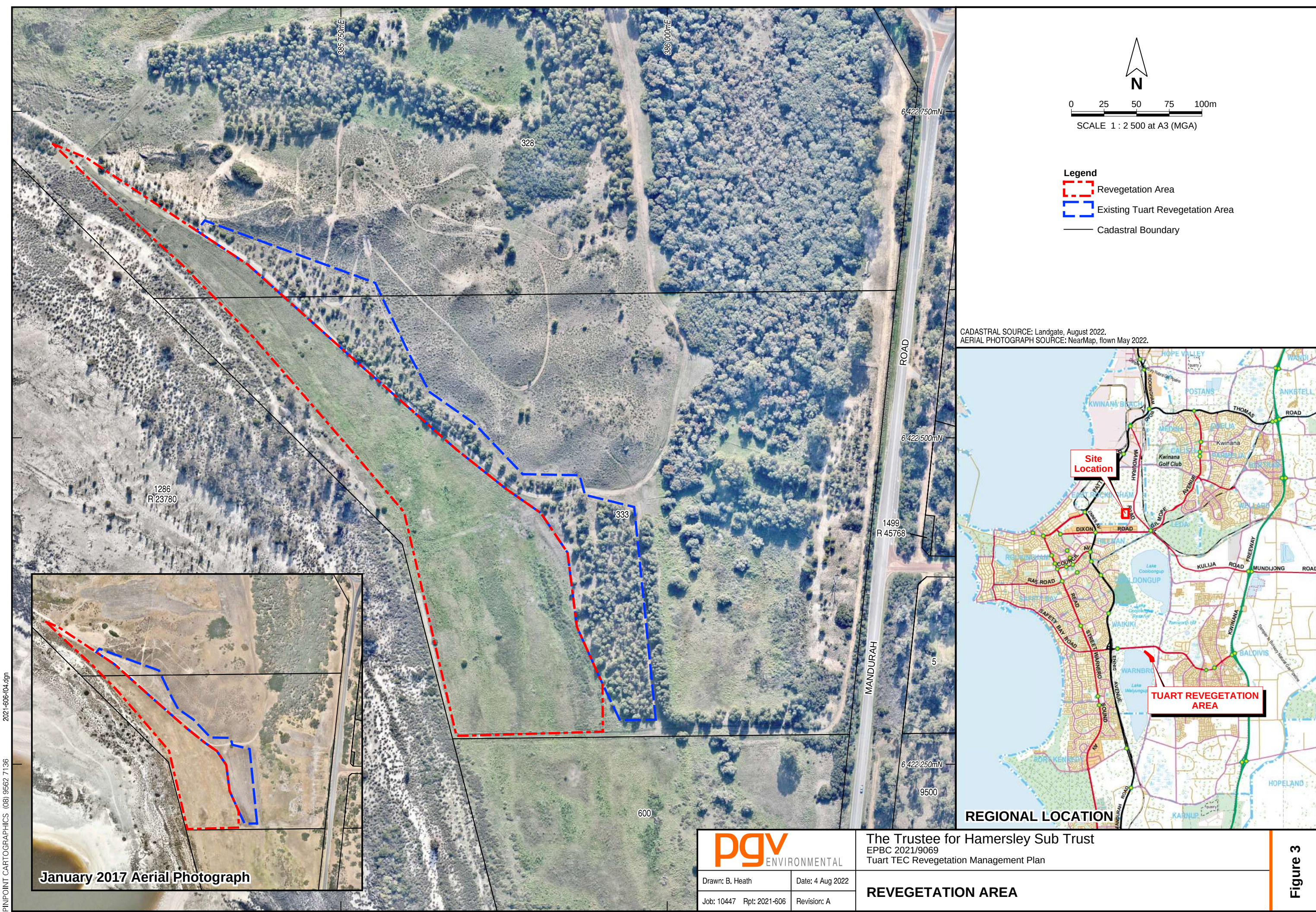


PINPOINT CARTOGRAPHICS (08) 9562 7136
2021-598-102.dgn
384 400mE

CADASTRAL SOURCE: Landgate, July 2021.
AERIAL PHOTOGRAPH SOURCE: NearMap, flown April 2021.

pgv ENVIRONMENTAL		Hero Properties Pty Ltd EPBC 2021/9069 Tuart TEC Revegetation Management Plan	
Drawn: P. van der Moezel	Date: 12 Aug 2021	TUART WOODLAND TEC - Lodge Drive East Rockingham	
Job: 10447 Rpt: 2021-598	Revision: A		

Figure 2



APPENDIX 1
EPBC APPROVAL 2021/9069



Notification of proposed approval

Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA (EPBC 2021/9069)

This decision is made under section 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Note that section 134(1A) of the EPBC Act applies to this approval. That provision provides, in general terms, that if the approval holder authorises another person to undertake any part of the Action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such conditions.

Proposed action

person to whom the approval is granted (approval holder)	The Trustee for Hamersley Sub Trust
ABN of approval holder	81 176 233 525
Action	To construct and operate a commercial hardstand on Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia (2021/9069) [See EPBC Act referral 2021/9069].

Proposed approval decision

proposed decision	My decision on whether or not to approve the taking of the Action for the purposes of the controlling provision for the Action is as follows.	
	Controlling Provision	Decision
	Listed threatened species and communities (section 18 and section 18A)	Approved
period for which the approval has effect	This approval has effect until 30 April 2063.	
conditions of approval	The approval is subject to conditions under the EPBC Act as set out in Annexure A.	

Person authorised to make decision

name and position	Kylie Calhoun Branch Head Environment Assessments West (WA, SA, NT) Branch
signature	PROPOSED DECISION DO NOT SIGN
date of decision	PROPOSED DECISION DO NOT DATE

Annexure A

Note: Words appearing in **bold** have the meaning assigned to them at PART C – DEFINITIONS.

Part A – Conditions specific to the Action

- 1) To avoid and mitigate the impacts to **protected matters**, the approval holder must not:
 - a) **Clear** outside of the **development envelope**.
 - b) **Clear** more than 5.495 hectares (ha) of **Tuart Ecological Community**.
 - c) **Clear** more than 1.5ha of **Carnaby's Black Cockatoo foraging habitat**.
- 2) To mitigate impacts to the **protected matters**, the approval holder must implement the **Vegetation and Fauna Management Plan** for the life of the approval.
- 3) To compensate for the residual significant impacts of **clearing** on the **Tuart Ecological Community** and foraging habitat for the **Carnaby's Black Cockatoo** the approval holder must implement the **Offset Strategy** for the life of the approval.
- 4) Prior to **commencement of the action** and to compensate for the residual significant impact under condition 3, the approval holder must submit to the **department** for the **Minister's** approval a Revegetation Management Plan (RMP). The RMP must be included as part of the **Offset Strategy** under condition 3. The environmental outcome of implementing the RMP must be to recreate at least 3.5 ha of the **Tuart Ecological Community** within the Rockingham Lakes Regional Park, 7km south of **development envelope**, that meets the listing criteria for high quality **Tuart Ecological Community** and is self-sustaining by 30 April 2063. The RMP must be consistent with the **department's Environmental Management Plan Guidelines**, and include:
 - a) Details of the relevant **protected matter/s** and a reference to **EPBC Act** approval conditions to which the plan refers.
 - b) A table of commitments made in the plan to achieve the environmental outcomes, and a reference to exactly where these commitments are detailed in the plan.
 - c) Commitments capable of ensuring that the environmental outcomes are achieved. These commitments must include:
 - i) To commence revegetation across at least 3.5ha within 6 months of **commencement of the action**.

- ii) The species and their provenance, and the approximate numbers of individuals of each species to be planted and/or seeded and the approximate timing of planting/seeding and milestones and success criteria for revegetation.
 - iii) Measures, including for hygiene, ground preparation and weed and herbivore control, and the approximate timing of the measures, to be undertaken prior to, during and following planting/seeding to ensure the success of the revegetation.
 - d) Reporting and review mechanisms to ensure compliance with the commitments made in the plan.
 - e) An assessment of risks relating to achieving the environmental outcomes and risk management strategies and/or mitigation measures that will be applied to address identified risks.
 - f) Impact avoidance, mitigation and/or repair measures, and the timing of those measures.
 - g) A monitoring program, which must include:
 - i) measurable performance indicators and completion criteria, which must include:
 - I. survival 40 years after planting, of at least 1.6 **Tuart trees** per 100m²
 - II. at least 12 local native understorey species per 10 m x 10 m plot
 - III. native vegetation coverage of at least 80% of the total vegetation cover at least 40 years after planting/seeding
 - ii) trigger values for corrective actions.
 - iii) the timing and frequency of monitoring, ensuring monitoring is capable of detecting trigger values and changes in the performance indicators.
 - iv) proposed corrective actions if trigger values are reached.
 - v) the timing and methods of submitting **monitoring data** to the **department**.
 - h) Links to other relevant plans or conditions of approval (including state/local government approval conditions).
- 5) When submitting the RMP to the **department** for the **Minister's** approval, the approval holder must provide the **department** with written evidence from the Western Australian Department Biodiversity, Conservation and Attractions (DBCA) confirming that DBCA considers that the outcomes and goals specified in the Revegetation Management Plan are achievable using the methods and within the timeframes specified in the Revegetation Management Plan.
- 6) The approval holder must not **commence the action** until the **Minister** has approved the Revegetation Management Plan in writing. The approval holder must commence implementing the approved Revegetation Management Plan within 2 years of the **commencement of the action** and thereafter must continue to implement the RMP until the expiry of this approval.

REVISION OF ACTION MANAGEMENT PLANS

- 7) The approval holder may, at any time, apply to the **Minister** for a variation to an action management plan approved by the **Minister** or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised action management plan (RAMP) then,

from the date specified, the approval holder must implement the revised action management plan (RAMP) in place of the previous action management plan (RAMP).

- 8) The approval holder may choose to revise the **Vegetation and Fauna Management Plan** approved by the **Minister** under condition 2, or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the Action in accordance with the revised **Vegetation and Fauna Management Plan** would not be likely to have a **new or increased impact**.
- 9) If the approval holder makes the choice under condition 15 to revise the **Vegetation and Fauna Management Plan** without submitting it for approval, the approval holder must:
 - a) Notify the **department** electronically that the approved **Vegetation and Fauna Management Plan** has been revised and provide the **department** with:
 - i) An electronic copy of the revised **Vegetation and Fauna Management Plan**.
 - ii) An electronic copy of the revised **Vegetation and Fauna Management Plan** marked up with track changes to show the differences between the approved action management plan and the revised **Vegetation and Fauna Management Plan**.
 - iii) An explanation of the differences between the approved **Vegetation and Fauna Management Plan** and the revised **Vegetation and Fauna Management Plan**.
 - iv) The reasons the approval holder considers that taking the Action in accordance with the revised **Vegetation and Fauna Management Plan** would not be likely to have a **new or increased impact**.
 - v) Written notice of the date on which the approval holder will implement the revised **Vegetation and Fauna Management Plan** (revised **Vegetation and Fauna Management Plan** implementation date), being at least 20 **business days** after the date of providing notice of the revision of the **Vegetation and Fauna Management Plan**, or a date agreed to in writing with the **department**.
 - b) Subject to condition 15, implement the revised **Vegetation and Fauna Management Plan** from the revised **Vegetation and Fauna Management Plan** implementation date.
- 10) The approval holder may revoke its choice to implement a revised **Vegetation and Fauna Management Plan** under condition 15 at any time by giving written notice to the **department**. If the approval holder revokes the choice under condition 15, the approval holder must implement the **Vegetation and Fauna Management Plan** in force immediately prior to the revision undertaken under condition 15.
- 11) If the **Minister** gives a notice to the approval holder that the **Minister** is satisfied that the taking of the Action in accordance with the revised **Vegetation and Fauna Management Plan** would be likely to have a **new or increased impact**, then:
 - a) Condition 15 does not apply, or ceases to apply, in relation to the revised **Vegetation and Fauna Management Plan**.
 - b) The approval holder must implement the **Vegetation and Fauna Management Plan** specified by the **Minister** in the notice.

- 12) At the time of giving the notice under condition 18, the **Minister** may also notify that for a specified period of time, condition 15 does not apply for one or more specified Action management plans.

Note: Conditions 15, 16, 17 and 18 are not intended to limit the operation of section 143A of the **EPBC Act** which allows the approval holder to submit a revised **Vegetation and Fauna Management Plan**, at any time, to the **Minister** for approval.

SUBMISSION AND PUBLICATION OF PLANS

- 13) The approval holder must submit all **plans** required by these conditions electronically to the **department**.
- 14) Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish each **plan** on the **website** within 15 **business days** of the date:
- a) of this approval, if the version of the **plan** to be implemented is specified in these conditions; or
 - b) the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**; or
 - c) the **plan** is submitted to the **department** in accordance with a requirement of these conditions, if the **plan** does not require the approval of the **Minister**; or
 - d) the **plan** is approved by a state/territory government as required under a state/territory government condition which must be complied with in accordance with these **EPBC Act** conditions.
- 15) The approval holder must keep all published **plans** required by these conditions on the **website** until the expiry date of this approval.
- 16) The approval holder is required to exclude or redact **sensitive ecological data** from **plans** published on the **website** or otherwise provided to a member of the public.
- 17) If **sensitive ecological data** is excluded or redacted from a **plan** in accordance with condition 14, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

Part B – Administrative conditions

NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION

- 18) The approval holder must notify the **department** electronically of the date of **commencement of the Action**, within 5 **business days** of **commencement of the Action**.
- 19) If the **commencement of the Action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the Action** without the prior written agreement of the **Minister**.

COMPLIANCE RECORDS

- 20) The approval holder must maintain accurate and complete **compliance records**.
- 21) If the **department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **department**, or by an independent auditor in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media.

- 22) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the **department's** *Guidelines for biological survey and mapped data* (2018), or any subsequent official version or as otherwise specified by the **Minister** in writing.
- 23) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the **department's** *Guide to providing maps and boundary data for EPBC Act projects* (2021), or any subsequent official version or as otherwise specified by the **Minister** in writing.
- 24) The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** in accordance with the requirements of the **Vegetation and Fauna Management Plan** and the Revegetation Management Plan.

ANNUAL COMPLIANCE REPORTING

- 25) The approval holder must prepare a **compliance report** for each 12-month period following the date of this approval, or as otherwise agreed to in writing by the **Minister**.
- 26) Each **compliance report** must be consistent with the **department's** *Annual Compliance Report Guidelines* (2014), or any subsequent official version.
- 27) Each **compliance report** must include:
 - a) Accurate and complete details of compliance and any non-compliance with the conditions and the **plans**, and any **incidents**.
 - b) One or more **shapefile** showing all **clearing** of any **protected matters**, and/or their habitat, undertaken within the 12-month period at the end of which that **compliance report** is prepared.
 - c) A schedule of all **plans** in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.
- 28) The approval holder must:
 - a) Publish each **compliance report** on the website within 60 **business days** following the end of the 12-month period for which that **compliance report** is required.
 - b) Notify the **department** electronically, within 5 **business days** of the date of publication that a **compliance report** has been published on the **website**.
 - c) Provide the weblink for the **compliance report** in the notification to the **department**.
 - d) Keep all published **compliance reports** required by these conditions on the **website** until the expiry date of this approval.
 - e) Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website** or otherwise provided to a member of the public.

- f) If **sensitive ecological data** is excluded or redacted from the published version, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the website.

Note: Compliance reports may be published on the **department's** website.

REPORTING NON-COMPLIANCE

- 29) The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**.
- 30) The approval holder must specify in the notification:
- a) Any condition or commitment made in a **plan** which has been or may have been breached.
 - b) A short description of the **incident** and/or potential non-compliance and/or actual non-compliance.
 - c) The location (including co-ordinates), date, and time of the **incident** and/or potential non-compliance and/or actual non-compliance.

Note: If the exact information cannot be provided, the approval holder must provide the best information available.

- 31) The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance, the details of that **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**. The approval holder must specify:
- a) Any corrective action or investigation which the approval holder has already taken.
 - b) The potential impacts of the **incident** and/or non-compliance and/or non-compliance.
 - c) The method and timing of any corrective action that will be undertaken by the approval holder.

INDEPENDENT AUDIT

- 32) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every five-year period following the **commencement of the Action** until this approval expires, unless otherwise specified in writing by the **Minister**.
- 33) For each **independent audit**, the approval holder must:
- a) Provide the name and qualifications of the nominated **independent** auditor, the draft audit criteria, and proposed timeframe for submitting the **audit report** to the **department** prior to commencing the **independent audit**.
 - b) Only commence the **independent audit** once the nominated **independent** auditor, audit criteria and timeframe for submitting the **audit report** have been approved in writing by the **department**.
 - c) Submit the **audit report** to the **department** for approval within the timeframe specified and approved in writing by the **department**.

- d) Publish each **audit report** on the **website** within 15 **business days** of the date of the **department's** approval of the **audit report**.
 - e) Keep every **audit report** published on the **website** until this approval expires.
- 34) Each **audit report** must report for the five-year period preceding that audit report.
- 35) Each **audit report** must be completed to the satisfaction of the **Minister** and be consistent with the **department's** *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019), or any subsequent official version.

COMPLETION OF THE ACTION

- 36) The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.
- 37) Within 20 **business days** after the **completion of the Action**, and, in any event, before this approval expires, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**.

Part C - Definitions

In these conditions any bolded use of a word or term refers to the below definition of that word or term:

Audit report means a written report of compliance and fulfilment of the conditions attached to this approval, objectively evaluated against the audit criteria approved by the **department**.

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the Action.

Carnaby's Black Cockatoo means the **EPBC Act** listed threatened species *Calyptorhynchus latirostris*.

Carnaby's Black Cockatoo foraging habitat means any area which provides foraging habitat for **Carnaby's Black Cockatoo**. **Carnaby's Black Cockatoo foraging habitat** includes, but is not limited to, Banksia woodland, Tuart forest, Jarrah woodland and mixed heathland. The location of identified **Carnaby's Black Cockatoo foraging habitat** within the **development envelope** includes the areas labelled 'Tuart Tree Canopy' in Attachment B.

Clear, cleared or clearing means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation.

Commence the Action or Commencement of the Action means the first instance of any specified activity associated with the action including **clearing** and **construction**. **Commencement of the Action** does not include minor physical disturbance necessary to:

- a) Undertake pre-clearance surveys or monitoring programs.
- b) Install signage and /or temporary fencing to prevent unapproved use of the project area.
- c) Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.

- d) Install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no impact on any **protected matter**.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **department's** chosen format for spatial data is a **shapefile**.

Completion of the Action means the date on which all activities associated with this approval have permanently ceased and/or been completed.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession, or that are within the approval holder's power to obtain lawfully.

Compliance report means a written report of compliance with, and fulfilment of, the conditions attached to the approval.

Construction means the erection of a building or structure that is, or is to be, fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; any work which involves breaking of the ground (including pile driving) or bulk earthworks; the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of temporary fences and signage. **Construction** does not include the erection of signage and site facilities for persons undertaking pre-commencement of activities so long as there are located where they have no impact on protected matters.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

Development envelope means the location of the action, represented in Attachment A by the zone enclosed by the red dashed line labelled 'Site Boundary'.

EPBC Act Environmental Offsets Policy means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (October 2012) including the Offsets Assessment Guide, or any subsequent official version.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

EPBC Regulations means the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth).

Incident means any event which has the potential to, or does, impact on any **protected matter**.

Independent means a person or firm who does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the project, the approval holder or the approval holder's staff, representatives, or associated persons.

*Other than for the purpose of undertaking the role for which an independent person is required

Independent audit means an audit conducted by an **independent** and **suitably qualified** person as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019), or any subsequent official version.

Minister means the Australian Government Minister administering the **EPBC Act**, including any delegate thereof.

Monitoring data means the data required to be recorded under the conditions of this approval.

New or increased impact means any direct or indirect increase in the impacts of an Action, an increase to the likelihood of an impact occurring, a reduction to the monitoring or mitigation measures for a **protected matter**, and/or a change to the nature or management of an environmental offset as outlined in the *Guidance on 'new or increased impact' relating to changes to approved management plans under EPBC Act environmental approvals* (2017), or any subsequent official version.

Offset Strategy means the offset information detailed in Section 5 of the *EPBC 2021/9069 Preliminary Documentation*, version 5, prepared by PGV Environmental for The Trustee for Hamersley Sub Trust, 17 January 2023.

Plan/s means any action management plan or strategy that the approval holder is required by these conditions to implement.

Protected matter means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.

Sensitive ecological data means data as defined in the Australian Government Department of the Environment *Sensitive Ecological Data – Access and Management Policy V1.0* (2016), or any subsequent official version.

Shapefile(s) means location and attribute information about the Action provided in an Esri shapefile format. Shapefiles must contain '.shp', '.shx', '.dbf' files and a '.prj' file that specifies the projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Tuart trees means the native tree *Eucalyptus gomphocephala*.

Tuart Ecological Community means the **EPBC Act** listed **Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Ecological Community**. The area of **Tuart Ecological Community** specific to this Action is represented in Attachment B as the pale purple shaded zone labelled 'Tuart woodland TEC' where it occurs within the **development envelope**.

Vegetation and Fauna Management Plan means the *EPBC 2021/9069 Vegetation and Fauna Management Plan*, version 2, prepared by PGV Environmental for The Trustee for Hamersley Sub Trust, 28 July 2022 – Attachment 4 of the *EPBC 2021/9069 Preliminary Documentation*.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

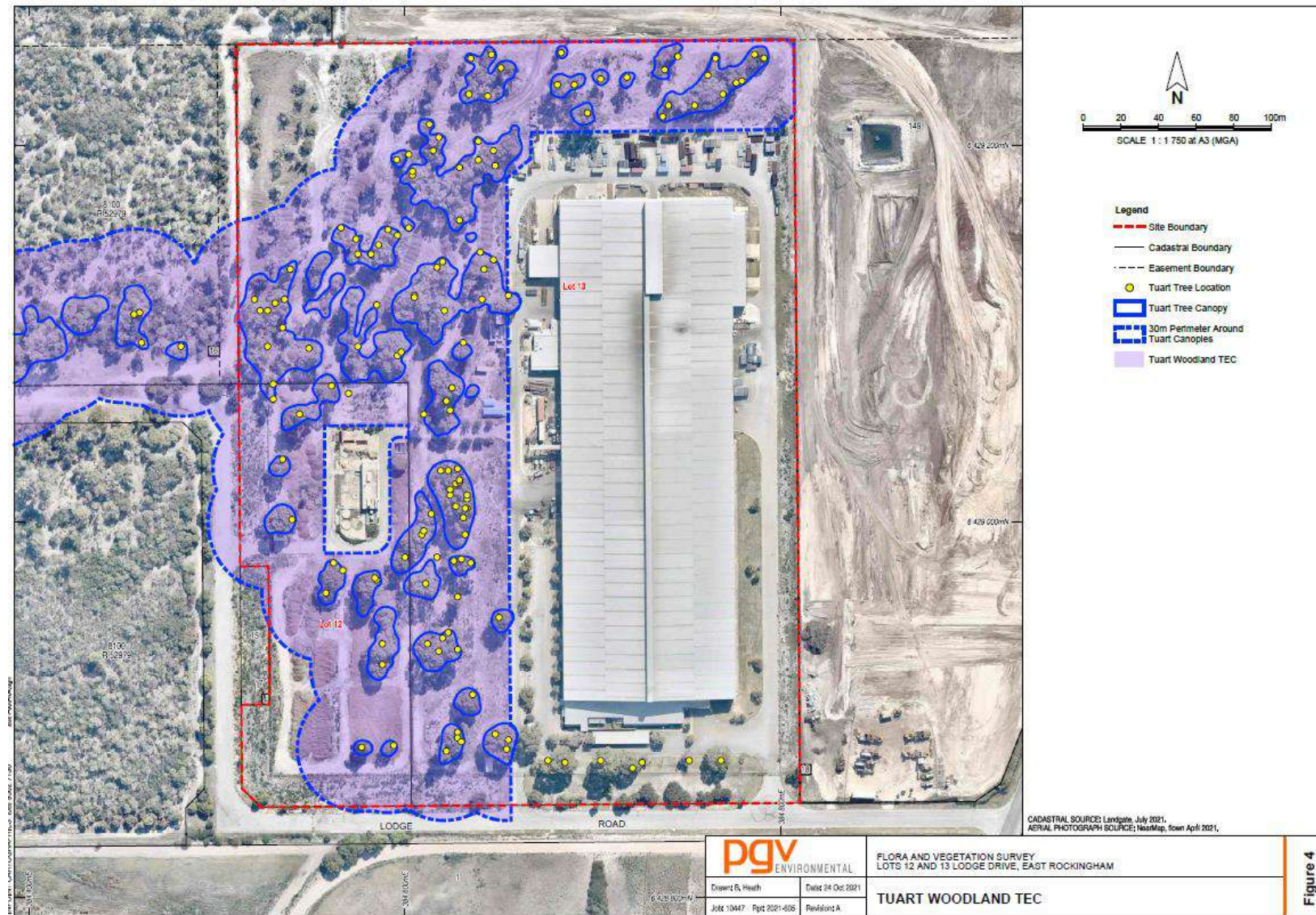
Attachments

- 1) Attachment A – Development Envelope – Commercial Development, Lodge Drive East Rockingham
- 2) Attachment B – Carnaby's Black Cockatoo foraging habitat and the Tuart Woodlands Threatened Ecological Community within development envelope

Attachment A – Development Envelope – Commercial Development, Lodge Drive East Rockingham



Attachment B – Carnaby's Black Cockatoo foraging habitat and the Tuart Woodlands Threatened Ecological Community within development envelope



APPENDIX 2

TUART WOODLAND TEC ASSESSMENT

LOTS 12 AND 13 LODGE DRIVE EAST ROCKINGHAM

TUART WOODLAND TEC ASSESSMENT AND BLACK COCKATOO HABITAT ASSESSMENT

Prepared for: The Trustee for Hamersley Sub Trust

Report Date: 27 October 2021

Version: 3

Report No. 2021-598

The logo for PGV Environmental. It features the letters 'pgv' in a large, bold, white, lowercase sans-serif font. To the right of 'pgv', the word 'ENVIRONMENTAL' is written in a smaller, white, uppercase sans-serif font. The background of the logo area is a vibrant orange with a subtle pattern of fine, white, curved lines that sweep across the space.

pgv ENVIRONMENTAL

CONTENTS

Contents	i
List of Attachments	iii
1 INTRODUCTION	1
1.1 Site Location	1
1.2 Background.....	1
1.3 Scope of Works.....	1
2 SITE HISTORY	3
3 TUART WOODLAND TEC ASSESMENT	5
3.1 TUART WOODLANDS AND FORESTS TEC DESCRIPTION	5
3.1.1 Key Diagnosis Characteristics.....	5
3.1.2 Defining a Patch of the Ecological Community	5
3.1.3 Condition Thresholds and Categories	7
3.2 Methodology	9
3.3 Vegetation	9
3.3.1 Tuart Vegetation.....	9
3.3.2 Patch Size.....	10
3.3.3 Vegetation Condition.....	12
3.3.4 Quadrat Data	12
3.4 Tuart Woodland Tec Assessment	13
3.4.1 Step-wise Analysis	13
3.4.2 Results	19
4 BLACK COCKATOO HABITAT ASSESSMENT	20
4.1 Black Cockatoo Species.....	20
4.1.1 Forest Red-tailed Black Cockatoo	20
4.1.2 Carnaby's Black Cockatoo	20
4.1.3 Baudin's Black Cockatoo	20
4.2 Black Cockatoo Habitat Assessment.....	20
4.2.1 Methodology	20
4.3 Results	21
4.3.1 Foraging.....	21
4.3.2 Roosting.....	22
4.3.3 Breeding	22
4.4 Regional Context	22

4.5	Significance of Impact.....	22
4.6	Black Cockatoo Referral Guidelines	26
5	SUMMARY AND CONCLUSIONS.....	29
5.1	Tuart Woodland TEC Assessment	29
5.2	Black Cockatoo Habitat Assessment	29
6	REFERENCES	31

LIST OF ATTACHMENTS

Tables

Table 1:	Condition Categories and Thresholds
Table 2:	Quadrat Information
Table 3:	Step 1
Table 4:	Step 2
Table 5:	Step 3
Table 6:	Step 4

Plates

Plate 1:	Historic Aerial Photograph 1995
Plate 2:	Historic Aerial Photograph 2000
Plate 3:	Historic Aerial Photograph 2021
Plate 4:	Patch Boundaries
Plate 5:	Variation within a patch, including small areas without understorey vegetation, and a small gap within a patch due to part of the Tuart canopy being >60 m apart
Plate 6:	Tuart Trees over Mulch
Plate 7:	Tuart Trees over Weeds
Plate 8:	Carpark and Shed within 30m of Tuart Canopy
Plate 9:	Planted Tuarts in Landscaped Carpark

Figures

Figure 1:	Site Location
Figure 2:	Tuart Tree Locations and Tuart Woodland Patches
Figure 3:	Black Cockatoo Habitat and Significant Trees
Figure 4:	Regional Black Cockatoo Habitat

Appendices

Appendix 1:	Quadrat Data
-------------	--------------

Appendix 2: Black Cockatoo Significant Trees

1 INTRODUCTION

1.1 Site Location

Lots 12 and 13 Lodge Drive, East Rockingham (the site) are located in the City of Rockingham approximately 36km south of the Perth Central Business District (Figure 1). The site is bound to the north and east by cleared land in the Clipper Precinct of the Rockingham Industry Zone (RIZ), to the south by cleared rural land and to the west by native vegetation in the RIZ Conservation Area.

The site is 11.9098ha in size.

1.2 Background

The site contains a large shed and some disused infrastructure associated with a Wool Scouring plant that was built between 1995 and 2000. The shed and yards are now used for a different purpose.

The shed and other areas of infrastructure occupy about 6ha of the 11.9ha site. The balance of the site remains undeveloped and contains a large number of trees and some bare areas.

The Trustee for Hamersley Sub Trust is assessing the potential for development of the site. Development is likely to include the clearing of most of the vegetation on the site.

Preliminary site investigations undertaken by PGV Environmental for The Trustee for Hamersley Sub Trust identified the trees on the site are all Tuart trees (*Eucalyptus gomphocephala*). The Tuart trees have the potential to be a part of the Tuart Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community (Tuart Woodland TEC) which is listed as a Critically Endangered community under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The Tuart trees provide a low value foraging source for Carnaby's Black Cockatoos, and any Tuart trees with a DBH greater than 500mm may provide future nesting habitat for Carnaby's and Forest Red-tailed Black Cockatoo.

The site was not included in the RIZ environmental approvals obtained at State and Commonwealth level. Therefore, the potential presence of the Tuart Woodland TEC and Black Cockatoo habitat on the site may have implications for the future development of the site.

PGV Environmental was commissioned by The Trustee for Hamersley Sub Trust to assess whether the Tuart vegetation on the site meets the criteria of the Tuart Woodland TEC and to assess the Black Cockatoo habitat in accordance with the EPBC Black Cockatoo Referral guidelines and the EPBC Significant Impact Guidelines.

1.3 Scope of Works

The scope of work for the assessment included the following:

- 1 Undertake the appropriate survey work to obtain information with which to assess the Tuart Woodland TEC;

- 2 Determine whether the Tuart Woodland TEC occurs on Lots 12 and 13, using the criteria contained in the Approved Tuart Woodland TEC Conservation Advice; and
- 3 Undertake a Black Cockatoo Habitat assessment using the EPBC Black Cockatoo Guidelines and EPBC Significant Impact guidelines.

2 SITE HISTORY

Aerial photography from 1995 shows the site as undeveloped but with a large amount of clearing over the site (Plate 1). Trees are apparent at the northern end and south-west corner.

Plate 1: Historic Aerial Photograph 1995



The 2000 aerial photo shows the wool scouring shed had been constructed on most of the eastern half and the smaller built area in the western half is the water treatment plant (Plate 2). Native vegetation remains in the north-west corner, and some scattered trees at the north-east end and some vegetation in the south-west corner.

Plate 2: Historic Aerial Photograph 2000



The 2021 aerial photograph shows the current situation with more trees on the site than was previously there in 2000 (Plate 3). The additional trees are the result of landscape planting around the carparks as well as some natural recruitment of trees.

Plate 3: Historic Aerial Photograph 2021



3 TUART WOODLAND TEC ASSESMENT

3.1 Tuart Woodlands and Forests TEC Description

The Tuart Woodlands and Forests of the Swan Coastal Plain was listed as a Threatened Ecological Community (TEC) with a rating of Critically Endangered under the Commonwealth EPBC Act on 4 July 2019 (for brevity the community will be called the Tuart Woodland TEC in this report). A description of the Tuart Woodland TEC is available through the EPBC Act listing and more specifically the *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community* (DoEE, 2017) released by the Commonwealth Government. According to the Conservation Advice the diagnostic characteristics of the TEC are outlined in the following sections.

3.1.1 Key Diagnosis Characteristics

- The ecological community is limited to patches of vegetation (with their associated biota) that meet all of the following key diagnostic characteristics:
- Occurs in the Swan Coastal Plain Bioregion, Western Australia (IBRA v7. Department of the Environment 2012).
- Primarily occurs on the Spearwood and Quindalup dune systems but can also occur on the Bassendean dunes and Pinjarra Plain. It can occur on the banks of rivers and wetlands.
- The primary defining feature is the presence of at least two living established *Eucalyptus gomphocephala* (Tuart) trees in the uppermost canopy layer, although they may co-occur with trees of other species. There is a gap of no more than 60 m between the outer edges of the canopies of adjacent Tuart trees. These trees may occur either as single stemmed trees or as a mallee growth form.
- Most often occurs as a woodland but can occur in other structural forms, For example, forest, open forest, woodland, open woodland, and various mallee forms (NVIS Technical Working Group 2017).
- Other tree species may be present in the canopy or sub-canopy. They commonly include: *Agonis flexuosa* (Peppermint) and *Banksia grandis* (Bull Banksia) (both in the southern part of the range), *Banksia attenuata* (Candlestick Banksia), *Eucalyptus marginata* (Jarrah); and less commonly, *Corymbia calophylla* (Marri), *Banksia menziesii* (Firewood Banksia) and *Banksia prionotes* (Acorn Banksia).
- An understorey of native plants is typically present, which may include grasses, herbs and shrubs, although this is often modified by disturbance. Some understorey plant species that are most commonly present are listed in Section 2.3.3 of the Conservation Advice.
- Native fauna species that are most commonly present are noted in Section 2.4 of the Conservation Advice.

3.1.2 Defining a Patch of the Ecological Community

- A patch of the ecological community is a discrete and mostly continuous area of vegetation that meets the key diagnostic characteristics.
- Boundaries for a patch can extend beyond a site or property boundary, or potential area of impact for a proposed action.

- The patch boundary is 30 m beyond the outer canopy of the established Tuart trees (≥ 15 cm diameter at breast height (DBH)), including dead Tuart trees (stags). See Plate 4
- Where a dead Tuart tree (stag) is being considered for inclusion in a patch of the ecological community, the vertical projection of its outermost remaining branches is used to define the edge of its canopy. If the species of a stag tree is unclear, if the edge of its canopy is within 60 m of an identified Tuart tree the stag is presumed to be a Tuart.
- Patches of Tuart woodlands and forests may contain areas that vary in structural or biological complexity. One part of a patch may have a larger number of mature trees and more ecological diversity, whereas another part of the same patch may demonstrate fewer mature trees and less groundcover. Areas with soil exposed and/or plant litter can also be expected within this ecological community.
- Variation in quality or condition of vegetation across a patch should not necessarily be considered to be evidence of multiple patches. Patches of the ecological community can be spatially variable and are often characterised by one or more areas within a patch that meet higher condition thresholds amongst areas of lower condition.
- If an area meets the key diagnostic characteristics but the average condition across that area falls below the minimum condition thresholds, the largest area or areas of at least 0.5 ha that meet minimum condition thresholds on average, should be specified as the patch or patches of the nationally listed ecological community. This may result in multiple patches of the ecological community being identified within the overall area first identified as meeting the key diagnostics.
- A patch may include small areas without understorey vegetation, such as bare ground, as well as waterbodies or hardscape (e.g. roads, paths, car parks, or buildings) that do not significantly alter the overall function of the ecological community. These small areas do not break up a patch, or divide a patch into multiple patches, as long as there are some parts of the canopy within 60 m of the outer edges of the canopies of adjacent Tuart trees (as per Plate 4). However, existing buildings and other human-made structures and gardens are not part of the nationally protected ecological community and should be excluded from the calculation of patch size and condition. See Plate 5.

Plate 4: Patch boundaries (DoEE, 2019)

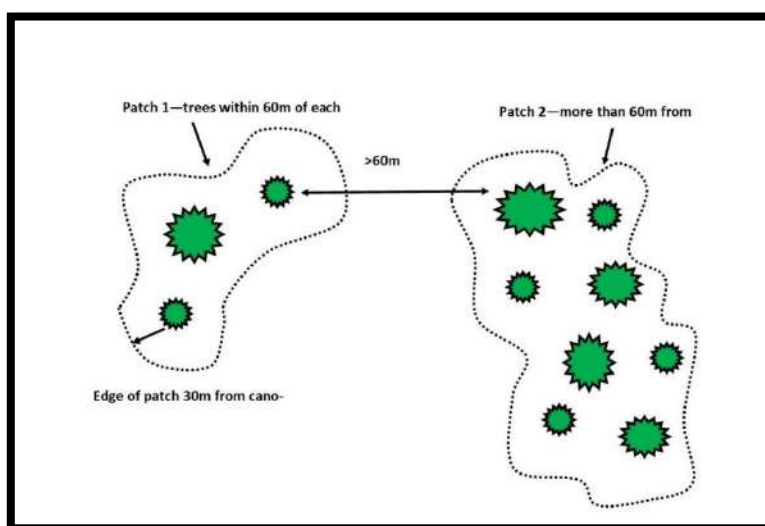
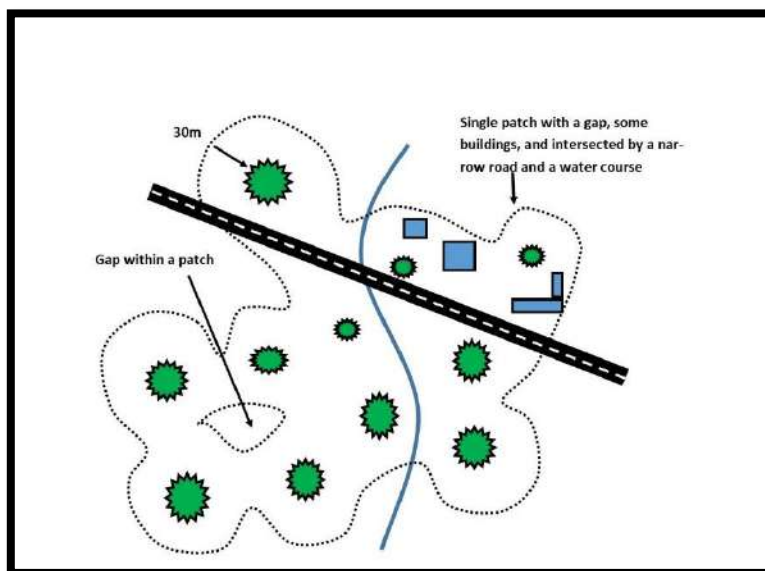


Plate 5: Variation within a patch, including small areas without understorey vegetation, and a small gap within a patch due to part of the Tuart canopy being >60 m apart (DoEE, 2019).



3.1.3 Condition Thresholds and Categories

For confirmed patches of the ecological community, following the key diagnostic characteristics and patch definition above (Step 1), determine the following requirements for information on condition to indicate if they are part of the nationally protected ecological community:

- If the patch is smaller than 0.5 ha it is **not** part of the nationally protected ecological community.
- If the patch is at least 0.5 ha and up to 5 ha in size, conduct on ground surveys (see Section 3.4.3) to determine which condition category applies, referring to Section 3.3.1. Patches in this size range are presumed to be part of the nationally protected ecological community unless surveys indicate they do not meet the minimum condition required for national protection. For patches in this size range inclusion in the nationally protected ecological community is determined by surveyed characteristics such as native plant species richness and contribution to cover, habitat values, evidence of regeneration and landscape characteristics.
- **All patches of 5 ha or greater** that meet the key diagnostic characteristics **are part of the nationally protected ecological community**. It is not necessary to conduct additional surveys to confirm that they meet biotic condition thresholds (Table 2) and that they are protected. However more detailed survey may assist in environment impact assessment, planning and monitoring management, or in determining relative biodiversity value between and within different large patches (e.g. to be used in prioritising conservation works etc.). Patches of this size that meet the key diagnostic characteristics provide important contributions to local biodiversity, habitat features and contribute to ecological connectivity of the ecological community and other surrounding ecological communities. Larger patches are likely to be more resilient to some kinds of disturbance and native species loss associated with fragmentation. These characteristics are all important for the long-term resilience of the ecological community across its range.

Table 1: Condition Categories and Thresholds

All patches ≥ 5 ha is part of the nationally protected ecological community, regardless of their understorey condition. That is, thresholds in this table do not apply to patches ≥ 5 ha, but the key diagnostic characteristics and patch definition must be met.

Patch size	≥ 2 ha <5 ha	≥ 0.5 ha <2 ha
Biotic thresholds		
Very high condition ≥ 80 % of all understorey vegetation cover is native Or At least 12 native understorey species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	Medium sized patches with very high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY	Smaller patches with very high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY
High condition ≥ 60 % of all understorey vegetation cover is native Or At least 8 native understorey species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	Medium sized patches with high condition understorey. PART OF THE PROTECTED ECOLOGICAL COMMUNITY	Smaller patches with high condition understorey. AND That either: have an important landscape role (≤ 100 m to native vegetation) OR have a habitat role (≥ 2 very large trees per 0.5 ha) OR show regeneration (≥ 15 seedlings and/or saplings per 0.5 ha) PART OF THE PROTECTED ECOLOGICAL COMMUNITY
Moderate condition ≥ 50 % of all understorey vegetation cover is native Or At least 4 native understorey species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	Medium sized patches with moderate condition understorey. AND That either: have an important landscape role (≤ 100 m to native vegetation) OR have a habitat role (≥ 2 very large trees per 0.5 ha) OR show regeneration (≥ 15 seedlings and/or saplings per 0.5 ha) PART OF THE PROTECTED ECOLOGICAL COMMUNITY	<u>NOT</u> PART OF THE PROTECTED ECOLOGICAL COMMUNITY (but may be a focus for local protection or restoration)
Poor Has minimal or no native cover and species richness. That is: < 50 % of all understorey vegetation cover is native And Less than 4 native understorey species per 0.01 ha (10 m x 10 m plot or equivalent sample unit)	<u>NOT</u> PART OF THE PROTECTED ECOLOGICAL COMMUNITY (but may be a focus for local protection or restoration)	<u>NOT</u> PART OF THE PROTECTED ECOLOGICAL COMMUNITY (but may be a focus for local protection or restoration)

3.2 Methodology

A survey of the Tuart vegetation on the site was undertaken by Dr Paul van der Moezel of PGV Environmental on 1 July 2021.

All Tuart trees with a diameter at breast height (DBH) greater than 15cm were mapped using a hand-held GPS with an accuracy of around 3m. The canopy of the outermost Tuart in each stand of trees was also measured using a GPS.

In addition, the percentage cover and height of native and introduced species was recorded from four 10m x 10m quadrats sampled from within areas of Tuart vegetation.

The location of the closest Tuart trees and their canopies in the adjoining RIZ Conservation Area was also measured.

3.3 Vegetation

3.3.1 Tuart Vegetation

A total of 134 Tuart trees with a DBH greater than 15cm were mapped on the site (Figure 2). Seven of these were in the landscaped carpark at the southern end of the shed and have not been included for further analysis. Most of the Tuarts were relatively young, with DBH less than 50cm. Overall, the Tuarts occurred in a Woodland structure (10-30% foliage cover), with some isolated trees further away from the woodland areas.

The understorey of the Tuart trees consisted either of a thick layer of mulch (Plate 6) or dense weeds (Plate 7). The mulch layer was around 0.5m thick. The date of mulching is not known but is likely to be associated with the clearing of the adjoining Clipper Precinct in early 2021. The areas containing weeds are considered to be representative of the vegetation that previously existed in the areas that were mulched. That is, the mulch was placed over weeds rather than over good quality native vegetation.

Only three native species were recorded in the whole area containing Tuart trees; *Acacia rostellifera*, *Acacia saligna* and the climbing plant *Clematis linearifolia*.

Introduced weed species dominated the species list. Common introduced species were Veldtgrass (*Ehrharta longiflora*), Cotton Bush (*Gomphocarpus fruticosus*), Geraldton carnation Weed (*Euphorbia terracina*), Oxalis (*Oxalis pes-caprae*), Fumitory (*Fumaria capreolata*) and Bridal Creeper (*Asparagus asparagoides*).

Several Tuart trees were planted since 2000 after construction of the wool scouring shed and carparks. The planted trees are obvious due to them being in a straight line and of relatively even size structure. Other trees are likely to have been planted given the increase in tree density from the 2000 aerial photo (Plate 2) and the 2021 aerial photo (Plate 3) but these are less obvious on the site.

Plate 6: Tuart Trees over Mulch**Plate 7: Tuart Trees over Weeds**

3.3.2 Patch Size

The definition of a 'patch' of Tuart woodland is included in the Conservation Advice. The boundary of a patch is 30m beyond the outer canopy of the established ($\geq 15\text{cm}$ DBH) Tuart trees. A patch can include man-made structures such as roads, paths, carparks and buildings provided that they do not significantly alter the overall function of the ecological community. According to the conservation

advice existing buildings and other man-made structures and gardens are not part of the TEC and should be excluded from the calculation of patch size and condition.

The 30m boundary around the Tuart trees extends into the carpark and access road as well as the large shed on the site. PGV Environmental has excluded these areas from the boundary of the patch as these areas clearly do not function in any way as an ecological community (Plate 8). Similarly, the planted Tuarts in the landscaped carpark at the southern end of the shed have been excluded (Plate 9) as has the dis-used water treatment plant which is all hardstand and offers no ecological function to the Tuart community.

Plate 8: Carpark and Shed Within 30m of Tuart Canopy



Plate 9: Planted Tuarts in Landscaped Carpark



Taking into consideration the definition of a patch of Tuart woodland ecological community PGV Environmental considers there is one patch of Tuart Woodland on the site. The size of the Tuart Woodland on the site is 5.495ha.

There are no Tuart trees to the north or east. Some planted Tuarts on the rural land to the south are more than 60m from the nearest Tuart in natural conditions on the site.

Tuart trees occur in the RIZ Conservation Area to the west. PGV Environmental mapped the co-ordinates of the nearest established tree as well as the boundary of the canopy (Figure 2). The distance between the nearest Tuart tree canopy in the Conservation Area and the canopy on the site is 28m. As a result, the Tuart trees in the Conservation Area are part of the same patch.

The size of the patch mapped on the site is:

- Patch (on-site only)– 5.495ha

The size of the patch including the Tuart trees in the RIZ Conservation Area is:

- Patch (including Tuarts off-site) – minimum 6.71ha, extending further west into the Conservation Area.

3.3.3 Vegetation Condition

The condition of the Tuart vegetation was all rated as Completely Degraded according to the Keighery scale (Government of Western Australia, 2000).

3.3.4 Quadrat Data

Four quadrats were sampled in the area containing Tuart trees. The locations of the quadrats are shown in Figure 2. The quadrat information is provided in Appendix 1 and summarised in Table 2.

Table 2: Quadrat Information

Quadrat	Species Richness (understorey spp.)		% Cover (understorey spp.)		Understorey Mulched?	Condition (Keighery)
	native	introduced	native	introduced		
LR1	1	27	1	80	No	Completely Degraded
LR2	0	12	1	40	Yes	Completely Degraded
LR3	3	12	1	34	Yes	Completely Degraded
LR4	2	14	12	84	No	Completely Degraded

Native understorey species richness ranged from 0-3 in the quadrats. The average number of native understorey species in the quadrats was 1.5. The number of native species is highly unlikely to increase in a spring survey given that more than half the understorey is thick mulch and the rest is dominated by weeds.

The number of introduced species ranged from 12-27 in the quadrats with the lowest number in the areas containing mulch.

Percentage cover of native species was very low ranging from 0-10%. Percentage cover of introduced species was higher, at 22-84% with the higher amounts in the areas without mulch.

3.4 Tuart Woodland Tec Assessment

3.4.1 Step-wise Analysis

The key diagnostic characteristics of the Tuart Woodland TEC are contained in the Approved Conservation Advice for the TEC published at the time of the proposed listing on 16 September 2016 and with the Tuart Woodlands and Forests of the Swan Coastal Plain: A Nationally Significant Ecological Community (DoEE, 2019).

The Conservation Advice contains the following step-wise approach to use in determining if the TEC occurs on a site:

- Step 1: Is the Tuart Woodlands and Forests ecological community in your proposed project site? Is it in other adjacent or off-site areas that may be impacted (for example, by introducing weeds)?
- Step 2: What is the patch size and condition category of the Tuart Woodlands and Forests in the proposed project site and in the surrounding area?
- Step 3: What further information can assist in identifying patches of the Tuart Woodlands and Forests and avoiding significant adverse impacts?
- Step 4: Will your proposed action have a significant impact on Tuart Woodlands and Forests

Step 1: Is the Tuart Woodlands and Forests ecological community in your proposed project site? Is it in other adjacent or off-site areas that may be impacted (for example, by introducing weeds)?

Table 3: Step 1

Key diagnostic characteristics [♦]	Information	Key diagnostic questions* (Refer to Section 3.2 of the Approved Conservation Advice for a complete explanation of these diagnostic features – other sections of the Approved Conservation Advice are referenced where relevant)	Response (yes/no/possibly) and detailed comments. Use as much space as you need to fully answer the question [#]
Location and physical environment	Bioregion	Is the proposal site within the Swan Coastal Plain IBRA bioregion?	Yes
Soils and Landform	Soil type	Is the soil type consistent with where the Tuart Woodlands and Forests may occur? (see Section 2.2.1 [♦])	Yes - Quindalup
	Location in the landscape, topography	Is the topography/physical environment consistent with where the Tuart Woodlands and Forests may occur? Is the site associated with any hydrology (groundwater/surface water)?	Yes Not associated with any hydrological features
Structure	Presence of Tuart trees	How many Tuart trees are present and are they consistent with the characteristics set out in the Approved Conservation Advice? Note: Please present this information in terms of total number of trees (dead, established, seedlings etc.) and trees per hectare of the footprint. Diagrams/maps should also be provided.	127 trees with DBH ≥15cm on the lot
	Structural form	What structural form is the vegetation?	Woodland

Key diagnostic characteristics [♦]	Information	Key diagnostic questions* (Refer to Section 3.2 of the Approved Conservation Advice for a complete explanation of these diagnostic features – other sections of the Approved Conservation Advice are referenced where relevant)	Response (yes/no/possibly) and detailed comments. Use as much space as you need to fully answer the question [#]
Composition	Dominant tree species, emergent tree layer, understory	Is the composition of the community consistent with the characteristics set out in the Approved Conservation Advice? What other tree species are present? How many native understorey species are present and what is the number of weedy species/proportion of weeds?	Yes, Only tree species present is Tuart Native understorey species richness ranges from 0-3 (average 1.75) in 10m x 10m quadrats. Weed species 7-19 in 10m x 10m quadrats. Weed species cover 22-82% well above the native species cover which was very sparse at 0-10% cover overall.
Defining a patch of Tuart Woodlands and Forests	Patch definition	What is the extent of the patch? Note: Descriptions of patch extent must include analysis of canopy extent and associated understorey vegetation (see Section 3.2.2 [♦]). Patches may extend beyond the project area or include areas of infrastructure (i.e. road, powerline). The referral should make clear how, and how much of the patch will be directly or indirectly impacted.	A 30m boundary was drawn around all established Tuart trees in the survey area resulting in the delineation of one patch on site and extending off-site to the west. The area of the patch is: On-site – 5.495ha On-site and off-site – Minimum 6.71ha
Relationship with other ecological communities	Other vegetation communities	Are other vegetation communities present? What are they and how do they intergrade and/or interact with the Tuart Woodlands and Forests TEC? (see Section 3.2.3 [♦])	A small stand of <i>Melaleuca raphiophylla</i> trees occurs in the north-west corner of the site. The vegetation is Completely Degraded and does not provide any additional ecological function to the patch of Tuart trees.

The complete key diagnostic characteristics are provided in the Approved Conservation Advice.

* The Tuart Woodlands and Forests may include restored, planted or revegetated flora. Do not exclude vegetation from being classed as the Tuart Woodlands and Forests because it is a planted, restoration or revegetation site (unless it is a garden).

[#] Comments should include references to appropriate supporting information and data.

Step 2: What is the patch size and condition category of the Tuart Woodlands and Forests in the proposed project site and in the surrounding area?

Table 4: Step 2

Size and condition [♦]	Information	Relevant content to be discussed in the referral (Refer to Section 3.3 of the Approved Conservation Advice for a complete explanation of these diagnostic features)	Detailed comments. Use as much space as you need to fully answer the question [#]
Patch Size	Patch size in hectares	Is the patch size large enough to meet the minimum patch size in this section? (Section 3.3 [♦]) Note: Patch boundaries are not limited to the proposal site. You must make clear that the patch boundary is consistent with Section 3.2.2 [♦] .	Yes, the patch is larger than the minimum 0.5ha threshold for the TEC.
Patch condition	Condition thresholds	Using the condition categories in this section, what is the patch condition? (Section 3.3.1 [♦]) What is the quality and size (hectares) of the vegetation community in and around the site where the proposed action will occur? Is the patch expected to improve in condition (e.g. after appropriate fire management) or is there a threatening process underway that will reduce the current size and/or condition? Note: Refer to Section 3.4 – Step 3 – Further information to assist in identifying patches of the protected ecological community and avoiding significant adverse impacts If patch quality varies over the site; characterisation of the variation should be provided. Patch condition includes consideration of thresholds for characteristics such as plant species richness, landscape features, Tuart tree age and size and other habitat roles of the vegetation. Other vegetation condition measures (e.g. Keighery scale) do not necessary reflect the condition thresholds and both should be provided, where relevant. Where threats are identified (i.e. those listed in Appendix C of the Approved Conservation Advice) please provide further information on what these are and how they have impacted the condition.	Based on the number of native species per 10m x 10m quadrat the condition category is Poor.

♦ Further information on the key diagnostic characteristics is provided in the Approved Conservation Advice.

Comments should include references to appropriate supporting information and data. The response which includes the information does not need to be presented in table form.

Step 3: What further information can assist in identifying patches of the Tuart Woodlands and Forests and avoiding significant adverse impacts?

Table 5: Step 3

Other characteristics [†]	Information	Relevant content to be discussed in the referral (Refer to Section 3.4 of the Approved Conservation Advice for a complete explanation of these)	Detailed comments. Use as much space as you need to fully answer the question [#]
Buffer zone	Condition thresholds	Has a buffer zone been applied to the Tuart Woodlands and Forests patch and what size is the buffer? What activities will occur within the buffer zone? (Section 3.4.1 [†]) Note: Activities within the buffer zone must be considered where they have the potential or may significantly impact Tuart Woodlands and Forests.	No buffer zone possible to the north or east due to existing developments. Land to the south zoned industrial and is currently cleared and offers no buffer to the Tuart patch. Vegetation to the west is a Conservation Area and will be protected in perpetuity.
Revegetated areas and areas of regrowth	Revegetation	Does the area contain revegetation or areas of regrowth? (Section 3.4.2 [†]) Note: Revegetated areas, if they meet the key diagnostic criteria can be Tuart Woodlands and Forests.	No regrowth of native understorey has occurred or is possible.
Sampling protocol	Design	Is the sampling consistent with what is described in Section 3.4.3 [†] ?	Yes – all areas with Tuarts were surveyed on site including sampling from 10m x 10m quadrats
	Timing of surveys, seasonal variation and post-disturbance surveys	Is the sampling consistent with what is described in Section 3.4.4 [†] (evidence must be provided)? Has any disturbance or other factors which may impact on the outcome of the survey been identified (fire, drought)?	Yes. Further sampling in spring not necessary as it will not lead to a change in condition category rating

Other characteristics [♦]	Information	Relevant content to be discussed in the referral (Refer to Section 3.4 of the Approved Conservation Advice for a complete explanation of these)	Detailed comments. Use as much space as you need to fully answer the question [#]
Other guidance for impact assessment and mitigation (see section 3.4.5)	Size and/or area to boundary ratio	What is the size/area to boundary ratio? Note: A map/diagram should be provided with the location and shape of the proposal site in context to the surrounding area.	Not determined
	Species recruitment	What evidence exists of recruitment of overstorey and understorey species? Does the site have a range of Tuart tree age cohorts? Are very large trees and/or tree hollows present?	Some younger Tuarts but not considered regrowth, rather natural recruitment of plants in a stable tree community. Several large (>0.5m dbh) Tuarts present, none with a hollow.
	Faunal habitat	What habitat does the site provide for fauna (e.g. water, variety in substrate, nest hollows)? What fauna does the site support?	Habitat for avifauna
	Combination of species	Does the site contain a unique combination of species?	No intact native understorey present, only some scattered individual plants.
	Species richness	What is the species richness of the site? Is it high? Note: this should include both flora and fauna.	Understorey native species richness ranges from 0-3 in 10m x 10m quadrats which is extremely low for Tuart vegetation
	Other listed species	Are any other EPBC Act listed species located on the site?	No listed flora. Potential breeding habitat for Black Cockatoos occurs on the site, but no actual breeding habitat.
	Soil surface characteristics	Is there presence of cryptogams, soil crust, leaf litter, intact proteaceous root mats or other indicators of a low level of soil disturbance?	Leaf litter and mulch present.

♦ Further information is provided in the Approved Conservation Advice.

Comments should include references to appropriate supporting information and data. The response which includes the information does not need to be presented in table form.

3.4.2 Results

The result of the Tuart Woodland TEC assessment is as follows:

- One patch of Tuart woodland occurs on the site, as determined using tree canopies and a perimeter 30m around the outer edge of the canopies;
- The vegetation condition is rated as Poor on the Tuart Woodland TEC scale
- The size of the Tuart patch within the site is 5.495ha, and at least 6.71ha when considering the extension to the west; and
- The Tuart patch meets the definition of the Tuart Woodlands and Forests of the Swan Coastal Plain Threatened Ecological Community, as the size of the patch is larger than the 5ha minimum required for a patch of Tuart in Poor condition to be the TEC.

4 BLACK COCKATOO HABITAT ASSESSMENT

4.1 Black Cockatoo Species

4.1.1 Forest Red-tailed Black Cockatoo

Forest Red-tailed Black Cockatoos (*Calyptorhynchus banksii naso*) are endemic to the humid to sub-humid south-west of Western Australia (SEWPaC, 2012). The range of Forest Red-tailed Black Cockatoos is bound by Gingin in the north to Mt Helena, Christmas Tree Well, West Dale, North Bannister, Mt Saddleback, Kojonup, Rocky Gully, upper King River and Green Range (east of Albany) (SEWPaC, 2012; DoE, 2016). Forest Red-tailed Black Cockatoos nest in tree hollows with a depth of 1-5m, that are predominately Marri, Jarrah and Karri and feed primarily on the seeds of Marri and Jarrah (Johnstone and Kirkby, 2011).

The site is within the modelled distribution for Forest Red-tailed Black Cockatoos (SEWPaC, 2012).

4.1.2 Carnaby's Black Cockatoo

Carnaby's Black Cockatoos (*Calyptorhynchus latirostris*) are found in the south-west of Australia from Kalbarri through to Ravensthorpe. The species has a preference for feeding on the seeds of Banksia, Dryandra, Hakea, Eucalyptus, Grevillea, Pinus and Allocasuarina spp. Carnaby's Black Cockatoos are nomadic, often moving toward the coast after breeding. The species breeds in tree hollows that are 2.5 – 12m above the ground and have an entrance of 23-30cm with a depth of 1-2.5m. Nesting mostly occurs in smooth-barked trees (eg. Salmon Gum, Wandoo, Red Morrell). Eggs are laid from July to October, with incubation lasting 29 days (DoE, 2014).

The site is within the modelled distribution and outside of the known breeding range for Carnaby's Black Cockatoos (SEWPaC, 2012).

4.1.3 Baudin's Black Cockatoo

Baudin's Black Cockatoos (*Calyptorhynchus baudinii*) are most common in the far south-west of Western Australia. The species is known to breed from the southern forests north to Collie and east to near Kojonup. Baudin's Black Cockatoo is typically found in vagrant flocks and utilises the taller, more open Jarrah and Marri woodlands where it feeds mainly on Marri seeds and various Proteaceous species (Johnstone and Kirkby, 2011).

The site is within the modelled distribution for Baudin's Black Cockatoos (SEWPaC, 2012).

4.2 Black Cockatoo Habitat Assessment

4.2.1 Methodology

PGV Environmental undertook a Black Cockatoo Habitat Assessment in accordance with the *EPBC Act referral guidelines for three threatened Black Cockatoo species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii Forest red-tailed Black Cockatoo (vulnerable) Calyptorhynchus banksii naso* (SEWPaC, 2012) (Black Cockatoo Referral Guidelines) and the methodology that is outlined in the SPRAT Database for each of the Black Cockatoo species for Black Cockatoo Habitat Assessments.

A site visit was undertaken by PGV Environmental on 1 July 2021.

The extent, type and quality of the vegetation present, including the presence and extent of plants known to be used by Black Cockatoos, was investigated during the assessment. The quality of the vegetation was determined in the context of foraging habitat for Black Cockatoos. During the site visit a search for feeding signs or feeding debris such as chewed Tuart (*Eucalyptus gomphocephala*) nuts was undertaken.

The assessment also searched for evidence of roosting including areas of droppings, moulted feathers, feather down or clippings from branches under trees.

Breeding habitat was assessed using the definition in the Black Cockatoo Referral Guidelines, which is trees of species known to support breeding within the range of the Black Cockatoo species that either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For the relevant tree species on the site, Tuart, the suitable DBH is 500mm. The assessment recorded all trees within the site that have a DBH of 500mm or greater. The location, species, trunk DBH and any other important descriptive information about each tree located within the site was recorded. The presence of hollows or spouts was recorded, and any potential large hollows were examined using 20x binoculars from the ground.

4.3 Results

4.3.1 Foraging

One native plant species was recorded on the site by PGV Environmental that is recognised as foraging habitat for Black Cockatoos (Davies 1966; Saunders 1980; Johnstone and Storr 1998; Johnstone and Kirkby 1999; Valentine and Stock, 2008; Groom 2011; Johnstone *et al.*, 2011; SEWPaC, 2012; Johnstone, *et al.*, 2013; Johnstone *et al.*, 2016) as shown in Table 2 (Figure 3).

Table 2: Foraging Species for Black Cockatoos Recorded on the Site

Species	Common Name
<i>Eucalyptus gomphocephala</i>	Tuart

Tuart was the dominant species in the remnant vegetation. The understorey was largely cleared of native vegetation.

The use of this flora species by each Black cockatoo species and their foraging value is shown in Table 3.

Table 3: Foraging Value for each Black Cockatoos Species

Species	Common Name	Carnaby's Black Cockatoo	Forest red-tailed Black Cockatoo	Baudin's Black Cockatoo
<i>Eucalyptus gomphocephala</i>	Tuart	Low	None	None

There was no evidence of foraging by Black Cockatoos on the site.

The extent of foraging is estimated at 1.4ha which is calculated using an average of 70% canopy cover for the Tuart trees on the site (Figure 3).

The Black Cockatoo Referral Guidelines refer to the quality of the foraging habitat as an important characteristic in determining the significance of the impact. However, there is no guidance as to how the quality is determined in the Black Cockatoo Referral Guidelines other than specifying that 'quality' foraging habitat refers to the use of the habitat by Black Cockatoos rather than the overall quality of the vegetation which would normally be described using understorey as well as tree canopy.

The foraging habitat on the site is considered to be low quality foraging habitat for Carnaby's Black Cockatoo. Forest Red-tailed Black Cockatoos and Baudin's Cockatoo are not known to forage on Tuart Trees (Johnstone *et al.*, 2011; SEWPaC, 2012; Johnstone, *et al.*, 2013; Johnstone *et al.*, 2016).

4.3.2 Roosting

The site does not contain a known roosting site for Black Cockatoos. There was no evidence of roosting observed during the site assessment on 1 July 2021.

The closest known roosting sites are within 3km of the site (Figure 4) (DoP, 2011).

4.3.3 Breeding

Black Cockatoos are known to breed in hollows of large eucalypts. The Black Cockatoo Referral Guidelines define trees of certain species with a DBH of 500mm or greater as breeding habitat regardless of the presence or not of hollows. The theory behind this definition is the concept that while the trees may not currently contain hollows, they are mature enough that in the next 50 years or so a hollow might form and be of use to Black Cockatoos for the purposes of breeding.

The site is outside of the known breeding range for Carnaby's Black Cockatoo. Tuart Trees are not a recognised species that Baudin's Cockatoo will use for breeding (Johnstone *et al.*, 2011; SEWPaC, 2012; Johnstone, *et al.*, 2013; Johnstone *et al.*, 2016).

The survey recorded 58 Tuart trees with a DBH ≥ 500 mm. None of the trees had hollows visible from the ground. Consequently, no recent or old evidence of breeding in hollows was observed on the site (Figure 4).

4.4 Regional Context

The site has protected Black Cockatoo habitat to the north and west in the RIZ conservation area and to the east in Bush Forever Site No. 349 - Leda and Adjacent Bushland, and to the south in Bush Forever Site No. 356 Lake Cooloongup, Lake Walyungup and Adjacent Bushland (Figure 4).

The areas requiring investigation as foraging habitat within 12km of the site is estimated to be around 7,434ha (DBCA, 2021). The amount of Tuart Woodland proposed to be cleared (1.4ha) represents 0.02% of the Black Cockatoo habitat in a 12km radius. The 12km radius is used as this is the distance a Black Cockatoo male bird will fly up to from a nest in search of food during chick rearing times.

4.5 Significance of Impact

According to the *EPBC Act Significant Impact Guidelines 1.1* (DoE, 2013), the significance of the impact on Black Cockatoos depends on the sensitivity, value and quality of the environment and the intensity, duration, magnitude and geographic extent of the impacts. The category of listing (for example;

Endangered, Vulnerable or Migratory) determines the significant impact criteria for listed flora and fauna species and ecological communities.

This Black Cockatoo Habitat Assessment assumes all of the foraging and potential breeding trees on the site would be cleared. Using this assumption, the clearing would result in approximately 1.4ha of foraging habitat and 58 potential breeding trees being cleared.

The following assessments are for Forest Red-tailed and Baudin's Black Cockatoos which are listed as Vulnerable and Carnaby's Black Cockatoos which are listed as Endangered.

Forest Red-tailed Black Cockatoo and Baudin's Black Cockatoo

The impact on Forest Red-tailed Black and Baudin's Cockatoos from clearing the Black Cockatoo habitat on the site has been assessed against the criteria set out in the *Significant Impact Guidelines 1.1* for the impact on a Vulnerable species and is shown below:

- *Lead to a long-term decrease in the size of an important population of a species*

In the *Significant Impact Guidelines 1.1* an important population is defined as "a population that is necessary for a species' long-term survival and recovery" and may be "key source populations either for breeding or dispersal, populations that are necessary for maintaining genetic diversity, and/or populations that are near the limit of the species' range".

There was no evidence of breeding occurring on the site and the surrounding area contains habitat for foraging, roosting, and breeding for Black Cockatoos that utilise the site.

Clearing 1.4ha of native vegetation on the site would not impact on the long-term survival or recovery of the species due to the large amount of Black Cockatoo habitat in the surrounding area.

- *Reduce the area of occupancy of an important population*

There was no evidence found of Forest Red-tailed or Baudin's Black Cockatoos breeding or roosting on the site. Clearing the site will not impact on these species as they don't utilise Tuart Trees for foraging.

Clearing 1.4ha of native vegetation from the site would not reduce the area of occupancy of the population.

- *Fragment an existing important population into two or more populations*

There are large areas of suitable habitat within 500m of the site that provide foraging and potential breeding habitat. Forest Red-tailed and Baudin's Black Cockatoos are highly mobile and can fly large distances between foraging areas.

Clearing 1.4ha of native vegetation from the site will not fragment the existing population.

- *Adversely affect habitat critical to the survival of a species*

There was no evidence that Forest Red-tailed and Baudin's Black Cockatoos breed on the site and Tuart Trees are not a recognised species of tree that they nest in. There are large areas of foraging habitat within 500m of the site.

Clearing the site would not adversely affect habitat critical to the survival of the species.

- *Disrupt the breeding cycle of an important population*

There was no evidence that Forest Red-tailed or Baudin's Black Cockatoos breed on the site, there were no suitable hollows for breeding.

Clearing native vegetation from the site would not disrupt the breeding cycle.

- *Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline*

The large areas (7,434ha) of high quality foraging and breeding habitat located in the surrounding region and within 500m of the site would prevent the population from declining.

Clearing native vegetation will not reduce the availability or quantity of foraging habitat as neither of the species forage on Tuart Trees.

- *Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat*

Clearing the site will not result in invasive species being introduced, therefore would not result in this outcome.

- *Introduce disease that may cause the species to decline*

Clearing the site will not result in disease being introduced, therefore would not result in this outcome.

- *Interfere substantially with the recovery of the species*

The Forest Red-tailed and Baudin's Black Cockatoos may pass through the site however they don't forage in Tuart Trees. Therefore, the clearing of approximately 1.4ha of foraging habitat on the site would not interfere substantially with the recovery of the species.

In accordance with the criteria set out in the *Significant Impact Guidelines 1.1* the conclusion of this assessment is that development of the site would not have a significant impact on Forest Red-tailed Black Cockatoos or Baudin's Black Cockatoos.

Carnaby's Black Cockatoo

The impact on Carnaby's Black Cockatoos from clearing the Black Cockatoo habitat on the site has been assessed against the criteria set out in the Significant Impact Guidelines 1.1 for the impact on an Endangered species and is shown below:

- *Lead to a long-term decrease in the size of a population*

There was no evidence of breeding occurring on the site and the site is outside of the known breeding range for the species. The surrounding region contains native vegetation suitable for foraging, roosting, and breeding habitat for Carnaby's Black Cockatoos. The Tuart Trees provide a low quality foraging habitat for Carnaby's Black Cockatoos.

Clearing 1.4ha of native vegetation on the site would not impact on the long term survival or recovery of the species due to the large amount of Carnaby's Black Cockatoo habitat in the surrounding area.

- *Reduce the area of occupancy of the species*

There was no evidence of Carnaby's Black Cockatoos breeding or roosting on the site. Clearing will reduce the area of foraging available, however the large areas of higher-quality foraging and breeding habitat located in the surrounding Bush Forever Sites and the RIZ conservation area within 500m of the site would prevent the population from declining

Clearing 1.4ha of native vegetation on the site would not reduce the area of occupancy of the population.

- *Fragment an existing population into two or more populations*

There are large areas of suitable habitat within 500m of the site that provide foraging and potential breeding habitat. Carnaby's Black Cockatoos are highly mobile and can fly large distances between foraging areas.

Clearing 1.4ha of native vegetation on the site will not fragment the existing population.

- *Adversely affect habitat critical to the survival of a species*

There was no evidence that Carnaby's Black Cockatoos breed on the site and there are large areas of habitat within 500m of the site.

Clearing on the site would not adversely affect habitat critical to the survival of the species.

- *Disrupt the breeding cycle of a population*

The site contained no evidence of breeding and there were no trees that contained suitable hollows/spouts therefore clearing of the site would not result in this outcome.

- *Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline*

The large areas of high-quality foraging and breeding habitat located in the surrounding region within 200m of the site would prevent the population from declining.

Clearing native vegetation will not reduce the availability or quantity of foraging habitat when considered in terms of the 7,434ha within 12km surrounding the site.

- *Result in invasive species that are harmful to a critically endangered or endangered species becoming established in the endangered or critically endangered species' habitat*

Clearing of the site will not result in the establishment of an invasive species harmful Carnaby's Black Cockatoos.

- *Introduce disease that may cause the species to decline*

Clearing of the site will not cause disease to be introduced therefore will not result in this outcome.

- *Interfere with the recovery of the species*

Carnaby's Black Cockatoos have access to suitable habitat (7,434ha) protected within 500m and 12km of the site. Therefore, the clearing of approximately 1.4ha of foraging habitat and 58 potential breeding habitat trees on the site would not interfere substantially with the recovery of the species.

In accordance with the criteria set out in the *Significant Impact Guidelines 1.1* the conclusion of this assessment is that development of the site would not have a significant impact on Carnaby's Black Cockatoos.

4.6 Black Cockatoo Referral Guidelines

The EPBC Act referral guidelines for three threatened Black Cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris* Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii* Forest red-tailed Black Cockatoo (vulnerable) *Calyptorhynchus banksii naso* (SEWPaC, 2012) (Black Cockatoo Referral Guidelines) contain several steps to determine whether or not a referral is required. These steps are:

1. The definition of habitat (breeding, roosting and foraging – Table 1 in the Black Cockatoo Referral Guidelines);
2. A description of the type of action that may have a high or low risk of being a significant impact and therefore require referral (Table 3 in the Black Cockatoo Referral Guidelines);
3. Formulation of a mitigation strategy to reduce the scale of impact; and
4. A flowchart to assist in decision making on whether or not an action should be referred.

Step 1 Black Cockatoo Habitat

There is approximately 1.4ha of foraging habitat (Carnaby's Black Cockatoo only) on the site.

The site contains 58 trees that are considered to be potential breeding trees (Carnaby's Black Cockatoo only). There is no evidence of breeding or roosting on the site.

Step 2 Level of Impact

Foraging

According to Table 3 in the Black Cockatoo Referral Guidelines the clearing of more than 1ha of quality foraging habitat has a high risk of causing a significant impact. Degradation of more than 1ha of quality habitat by things such as altered hydrology or fire regimes has an uncertain risk. The significance of degradation depends on the type of degradation and the quality of the habitat.

The site contained approximately 1.4ha of foraging habitat for Black Cockatoos. Tuart trees provide low quality foraging for Carnaby's Black Cockatoo and the other two species of Black Cockatoos don't

forage on Tuart Trees. Clearing the site will lead to the loss of more than 1ha of low quality foraging habitat and is unlikely to result in a significant impact according to the guidelines.

Roosting

The Black Cockatoo Referral Guidelines consider the clearing of a known roosting site as a high risk of being a significant impact. Anecdotally, there is no evidence of roosting on the site and there was no evidence of roosting found during the site visit on 1 July 2021. The risk of a significant impact on a known roosting site is considered to be low.

Breeding

According to Table 3 in *the Black Cockatoo Referral Guidelines* the clearing of any known nesting tree has a high risk of being a significant impact. A known nesting tree is defined in the Black Cockatoo Referral Guidelines as any existing tree in which breeding has been recorded or suspected. There are no known nesting trees that occur on the site and therefore there is no risk of a significant impact on known breeding habitat of Black Cockatoos.

The *Black Cockatoo Referral Guidelines* also consider that the clearing or degradation of any part of a vegetation community known to contain breeding habitat is likely to have a high risk of a significant impact. In Table 1 of the *Black Cockatoo Referral Guidelines* breeding habitat is defined as woodlands, forests or isolated trees that contain or consist of live or dead trees of certain species with either a DBH of or greater than 500mm or the presence of suitable nest hollows.

The site contains 58 Tuart trees with a DBH of or greater than 500mm none of which contained hollows/spouts suitable for Black Cockatoos. Baudin's Black Cockatoos are not known to breed in Tuart Trees and the Site is outside of the known breeding range for Carnaby's Black Cockatoo.

According to the Black Cockatoo Referral Guidelines the risk of a significant impact on breeding habitat of Carnaby's Black Cockatoos is high.

Surrounding Habitat

According to the Black Cockatoo Referral Guidelines clearing of vegetation that results in a gap of greater than 4km between patches of Black Cockatoo habitat (foraging, roosting or breeding) has a high risk of having a significant impact.

Clearing the native vegetation will not create large gaps between native vegetation therefore the risk is considered to be low.

Step 3 Mitigation

The consideration of a mitigation strategy during the determination of the level of impact and requirement to refer is allowed by the *Black Cockatoo Referral Guidelines* and setting in place the best practice mitigation strategy may reduce the level of impact and in turn the risk of a significant impact. Mitigation strategies include avoiding impact, managing impact so that there is no net decline in habitat and monitoring the effectiveness of mitigation.

This assessment is based on the entire 1.4ha of low quality foraging habitat and all 58 potential breeding habitat trees being cleared. There is no alternative for the vegetation clearing if the Lots are developed for general industry in line with the zoning under the MRS and TPS.

Step 4 Referral Advice

The Decision Making flowchart in Figure 1 of the Black Cockatoo Referral Guidelines was applied to the site without consideration of mitigation strategies and is shown in sequence below:

- 1 Could the impacts of your action occur within the modelled distribution of the black cockatoos? – YES
- 2 Could the impacts of your action affect any black cockatoo habitat or individuals? - YES
- 3 Have you surveyed for black cockatoo habitat using the recommended methods? – YES
- 4 Could your action have an impact on black cockatoos or their habitat? – YES
- 5 Is your impact mitigation best practice so that it may reduce the significance of your impacts on black cockatoos? Prioritise impact avoidance over impact minimisation - NO

RESULT – Referral Recommended: Risk of resulting in significant impact.

5 SUMMARY AND CONCLUSIONS

5.1 Tuart Woodland TEC Assessment

The Tuart Woodland TEC Assessment concludes the following:

1. A total of 127 established (DBH ≥ 15 cm) Tuart trees were recorded on Lots 12 and 13 Lodge Road. Seven Tuarts planted for landscaping at the southern end of the shed were not included;
2. The Tuart trees occurred in one patch as defined by the Tuart Woodland TEC Conservation Advice;
3. Native understorey species richness was very low with only three species recorded in the whole patch and 0-3 (average 1.7) in the four 10m x 10m quadrats sampled. The number of introduced species was higher (7-19) and the percentage cover of introduced species was far higher than native with 22-82% compared to 0-10% for native species;
4. The condition of the Tuart vegetation was rated as Completely Degraded according to the Keighery vegetation scale;
5. The condition category of the Tuart Woodland patch was rated as Poor according to the Conservation Advice condition category scale;
6. The size of the Tuart Woodland patch on site was measured as:
 - 5.495ha
7. The size of the Tuart Woodland patch on site and extending off-site into the RIZ Conservation Area is at least 6.71ha; and
8. Despite the almost complete absence of native understorey species, the Tuart patch meets the criteria of being the Tuart Woodlands and Forests of the Swan Coastal Plain TEC due to the size of the patch being larger than 5ha.

The Tuart Woodland TEC is listed as Critically Endangered under the Commonwealth EPBC Act. Any proposal that is likely to have a significant impact on a Critically Endangered TEC is required to be referred to the Commonwealth Department of Agriculture, Water and the Environment (DAWE) for consideration for assessment.

The significance of an impact is determined by the EPBC Act Significant Impact Guidelines 1.1. A reduction in the extent of an ecological community is one of the seven actions that is likely to have a significant impact. There is no threshold to the amount of vegetation that can be cleared before it is considered significant.

A referral of a proposed impact on the Tuart Woodland TEC on the site should highlight the Poor condition of the patch due to the almost absent native understorey, and the large area of Tuart Woodland TEC in the adjoining RIZ Conservation Area that is in very good condition.

5.2 Black Cockatoo Habitat Assessment

The Black Cockatoo Habitat Assessment identified 1.4ha of foraging habitat (Tuart only) on the site consisting of Tuart trees. There was not any evidence of foraging by Black Cockatoos was observed on the site.

The site does not contain a known roosting site and no evidence was observed that the site has been used as roosting habitat.

The site does not contain known breeding sites and no evidence of breeding was recorded on the site. There were 58 potential breeding habitat trees (all Tuart) recorded on site, none of which had hollows visible from the ground.

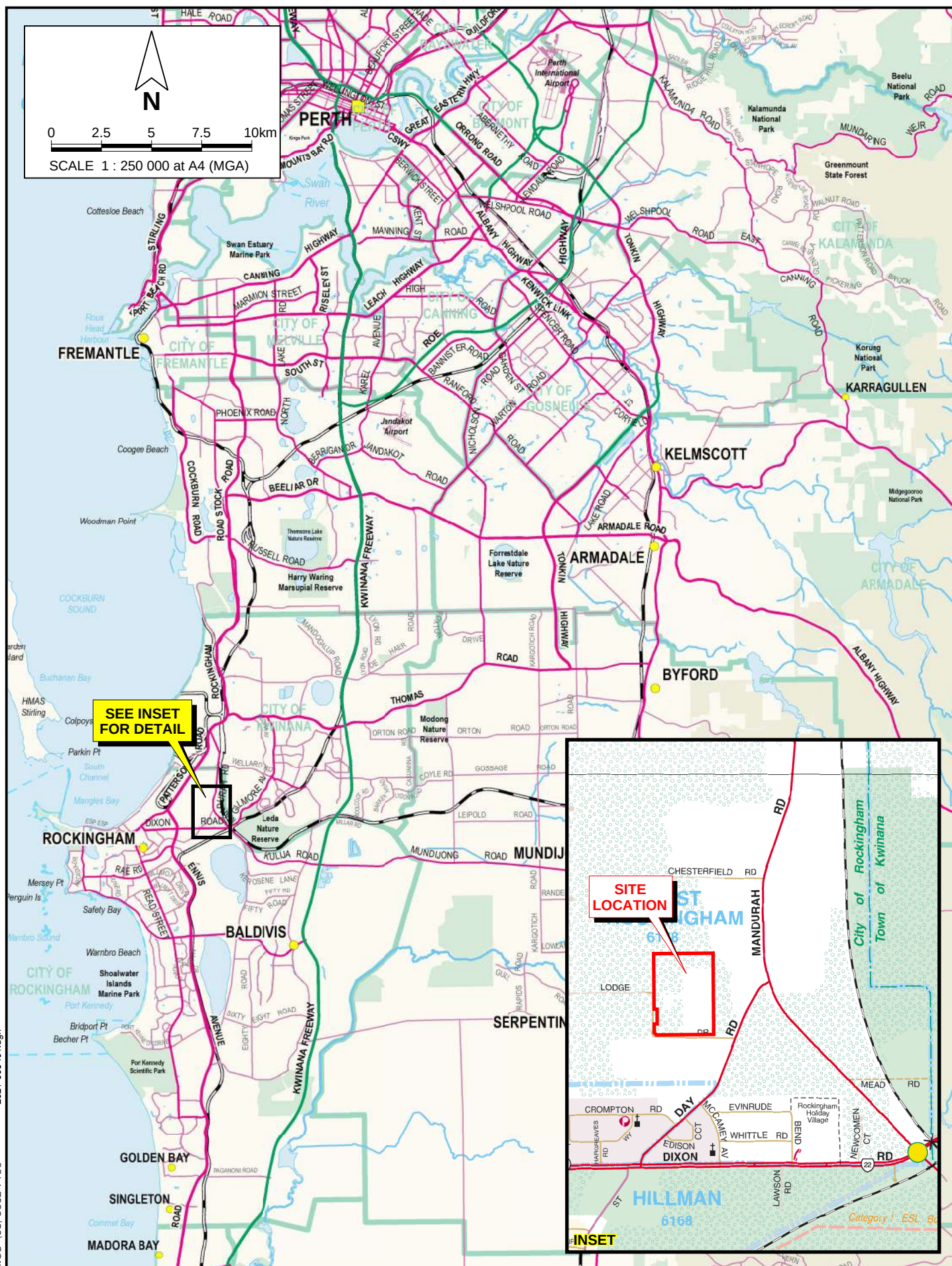
Clearing of the site will result in the loss of 1.4ha of Black Cockatoo habitat. According to the EPBC Act Significant Impact Guidelines, the impact on Forest Red-tailed Black Cockatoos, Baudin's Black Cockatoo and Carnaby's Black Cockatoos is not likely to be significant. The site is unlikely to be used by Forest Red-tailed Black Cockatoos and Baudin's Black Cockatoo as they are not known to forage in Tuart Trees.

However, in accordance with the Black Cockatoo Referral Guidelines the clearing of Black Cockatoo habitat is likely to have a high risk of being a significant impact due to the loss 1.4ha low quality foraging habitat and 58 potential breeding trees. Referral to the Department of Agriculture, Water and the Environment under the EPBC Act is therefore recommended.

6 REFERENCES

- Department of the Environment and Energy DoEE, (2019) *Approved Conservation Advice (incorporating listing advice) for the Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain ecological community*. Australia
- Tuart Response Group (2002) *An Atlas of Tuart Woodlands on the Swan Coastal Plain in Western Australia* Perth, Western Australia
- Department of Planning (DoP) (2011) Carnaby's Cockatoo foraging, breeding and roosting mapping. Produced by the Mapping and GeoSpatial Data Branch. Perth, Western Australia.
- Department of Sustainability, Environment, Water, Population and Communities (SEWPaC) (2012) Environment Protection and Biodiversity Conservation Act 1999 referral guidelines for three threatened black cockatoo species: Carnaby's cockatoo (endangered) *Calyptorhynchus latirostris*; Baudin's cockatoo (vulnerable) *Calyptorhynchus baudinii*; Forest red-tailed black cockatoo (vulnerable) *Calyptorhynchus banksii naso*. Commonwealth of Australia.
- Department of the Environment (DoE) (2013) Matters of National Environmental Significance. Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999. Commonwealth of Australia.
- Groom (2011) Plants Used by Carnaby's Black Cockatoo. Published by the Department of Environment and Conservation. Perth, Western Australia.
- Johnstone, R. E. C. and Kirkby, T. (2011) Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Baudin's Cockatoo (*Calyptorhynchus baudinii*) and the Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) on the Swan Coastal Plain (Lancelin–Dunsborough), Western Australia. Studies on distribution, status, breeding, food, movements and historical changes. Report for the Department of Planning, Perth, Western Australia.
- Valentine, L.E. and Stock, W. (2008) Food Resources of Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*) In The Gnangara Sustainability Strategy Study Area. Report for the Gnangara Sustainability Strategy. Government of Western Australia, Perth.

FIGURES



pgv ENVIRONMENTAL

The Trustee for Hamersley Sub Trust
FLORA AND VEGETATION SURVEY
LOTS 12 AND 13 LODGE ROAD, EAST ROCKINGHAM

Drawn: B. Heath

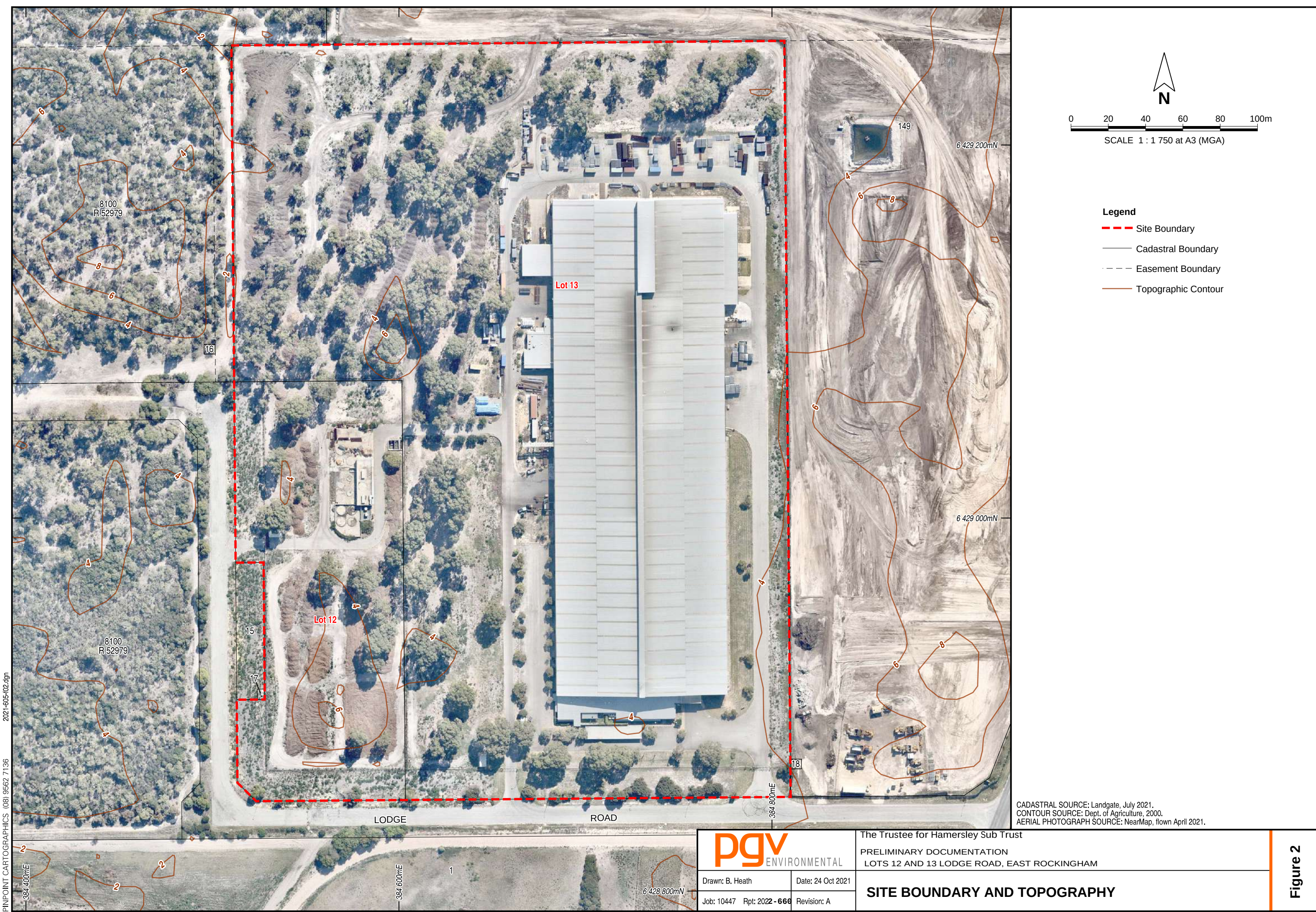
Date: 24 Oct 2021

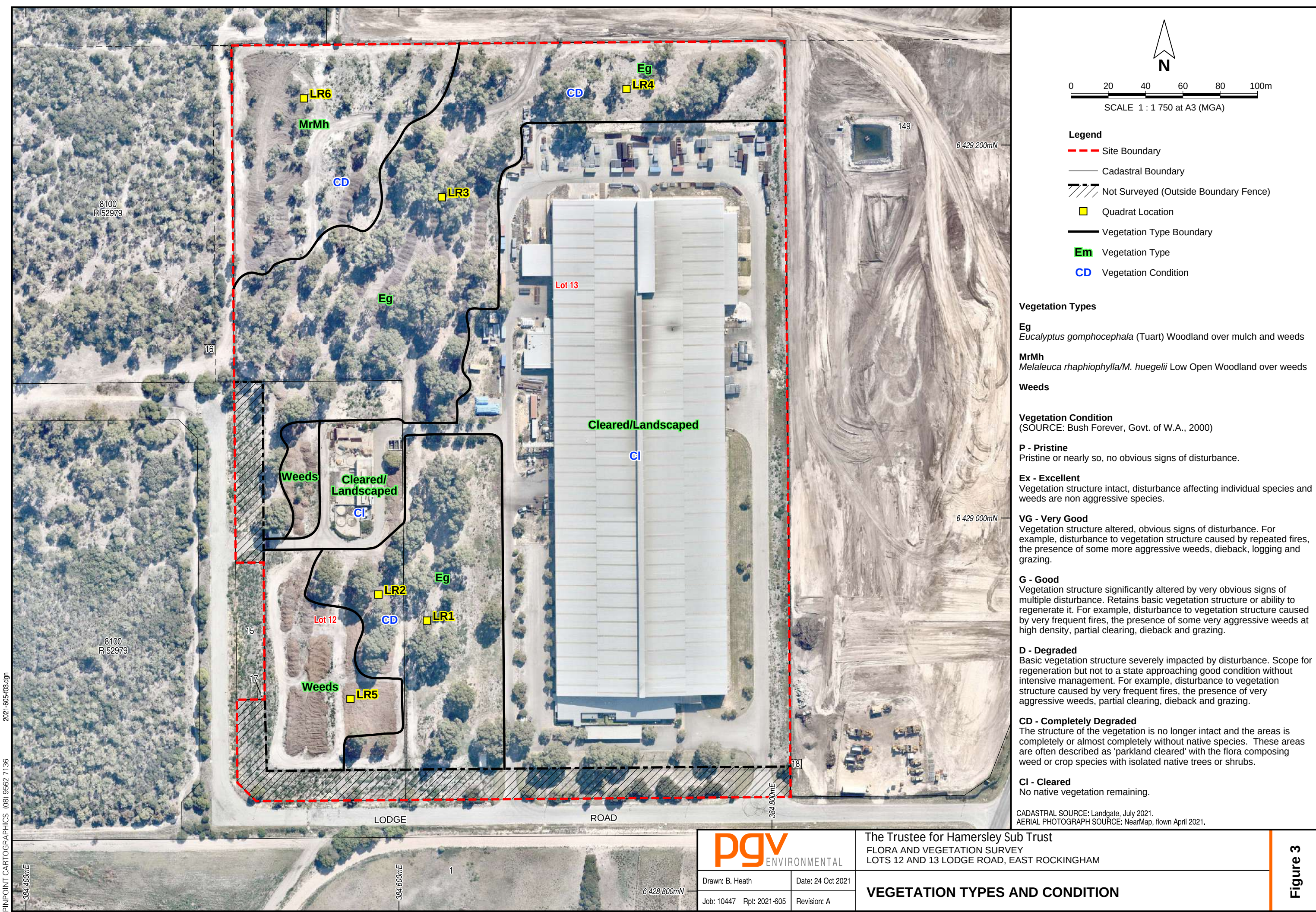
Job: 10447 Rpt: 2021-605

Revision: A

SITE LOCATION

Figure 1





2021-605-103.dgn

08 9562 7136

PINPOINT CARTOGRAPHICS

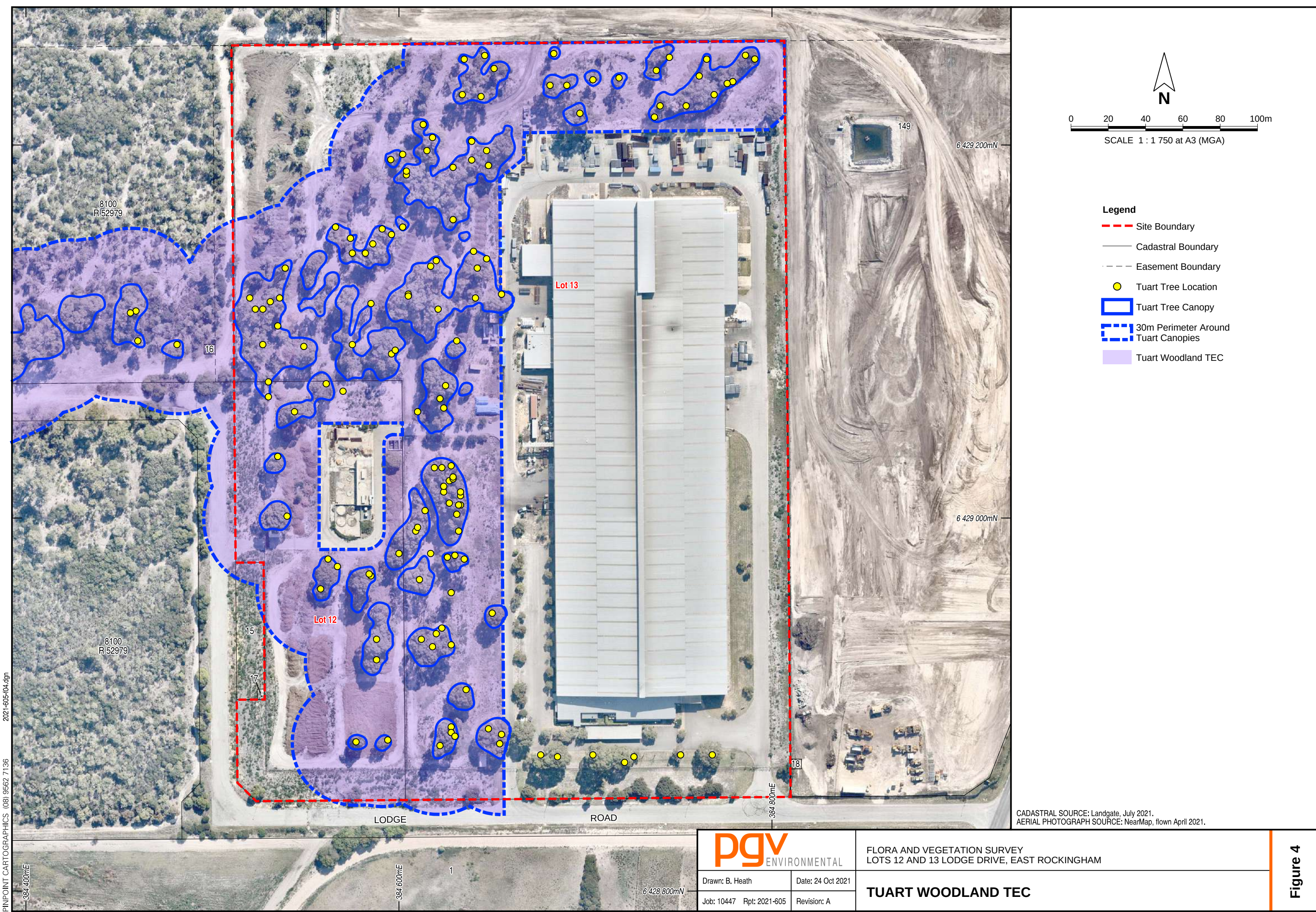


Figure 4

APPENDIX 1

Quadrat Data

QUADRAT LR1

50 384615 E 6428945 N

Vegetation: *Eucalyptus gomphocephala* (Tuart) Woodland over weeds
Condition: Completely Degraded
Landform: Flat
Soil: Mulch
Date: 15.10.21
Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
<i>Eucalyptus gomphocephala</i>	12	25
* <i>Avena fatua</i>	1.2	10
* <i>Rhamnus alaternus</i>	1.2	1
* <i>Gomphocarpus fruticosus</i>	1.1	15
* <i>Schinus terebinthifolius</i>	1	<1
* <i>Ehrharta longiflora</i>	1	25
<i>Acacia rostellifera</i>	0.8	1
* <i>Melilotus indicus</i>	0.6	<1
* <i>Raphanus raphanistrum</i>	0.6	<1
* <i>Lolium rigidum</i>	0.5	2
* <i>Sonchus asper</i>	0.5	1
<i>Acacia saligna</i>	0.5	<1
* <i>Solanum nigrum</i>	0.4	5
* <i>Trachyandra divaricata</i>	0.4	<1
* <i>Sonchus oleraceus</i>	0.4	<1
* <i>Bromus diandrus</i>	0.4	<1
* <i>Briza minor</i>	0.4	<1
* <i>Lysimachia arvensis</i>	0.3	2
* <i>Euphorbia terracina</i>	0.3	1

SPECIES	HEIGHT (m)	COVER (%)
* <i>Asphodelus fistulosus</i>	0.3	<1
* <i>Arctotheca calendula</i>	0.3	<1
* <i>Malva parviflora</i>	0.2	1
* <i>Oxalis pes-caprae</i>	0.2	10
* <i>Fumaria capreolata</i>	0.1	10
* <i>Euphorbia peplus</i>	0.1	<1
* <i>Trifolium sp</i>	<0.1	<1
* <i>Taraxacum officinale</i>	Flat	<1
* <i>Cirsium vulgare</i>	Flat	<1
* <i>Hypochaeris glabra</i>	Flat	<1
* <i>Asparagus asparagoides</i>	Climber	2

* introduced species

QUADRAT LR2

50 384589 E 6428959 N

Vegetation: *Eucalyptus gomphocephala* (Tuart) Woodland over mulch and weeds
Condition: Completely Degraded
Landform: Flat
Soil: Mulch
Date: 15.10.21
Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
<i>Eucalyptus gomphocephala</i>	15	20
* <i>Avena fatua</i>	1	10
* <i>Ehrharta longiflora</i>	0.7	5
* <i>Rhamnus alaternus</i>	0.5	1
* <i>Bromus diandrus</i>	0.4	10
* <i>Sonchus asper</i>	0.4	<1
* <i>Euphorbia terracina</i>	0.3	<1
* <i>Medicago polymorpha</i>	0.3	40
* <i>Fumaria capreolata</i>	0.3	<1
* <i>Oxalis pes-caprae</i>	0.2	20
* <i>Sisylx atropurpurea</i>	0.1	<1
* <i>Lysimachia arvensis</i>	0.1	<1
* <i>Asparagus asparagoides</i>	Climber	<1

* introduced species

QUADRAT LR3

50 384623 E 6429172 N

Vegetation: *Eucalyptus gomphocephala* (Tuart) Woodland over mulch and weeds
Condition: Completely Degraded
Landform: Flat
Soil: Mulch
Date: 15.10.21
Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
<i>Eucalyptus gomphocephala</i>	15	25
* <i>Rhamnus alaternus</i>	2	2
* <i>Avena fatua</i>	1	20
<i>Melaleuca huegelii</i>	1	1
* <i>Gomphocarpus fruticosus</i>	0.8	1
* <i>Ehrharta longiflora</i>	0.7	1
* <i>Bromus diandrus</i>	0.4	5
* <i>Euphorbia terracina</i>	0.3	<1
* <i>Oxalis pes-caprae</i>	0.2	2
* <i>Trifolium campestre</i>	0.2	1
<i>Acacia rostellifera</i>	0.2	<1
* <i>Asphodelus fistulosus</i>	0.2	<1
* <i>Solanum nigrum</i>	0.1	<1
* <i>Lysimachia arvensis</i>	0.1	<1
* <i>Asparagus asparagoides</i>	Climber	1
<i>Clematis linearifolia</i>	Climber	<1

* introduced species

QUADRAT LR4

50 384722 E 6429230 N

Vegetation: *Eucalyptus gomphocephala* (Tuart) Woodland over weeds
Condition: Completely Degraded
Landform: Flat
Soil: Mulch
Date: 15.10.21
Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
<i>Eucalyptus gomphocephala</i>	14	20
<i>Spyridium globulosum</i>	1	2
* <i>Rhamnus alaternus</i>	1	1
* <i>Solanum nigrum</i>	1	1
* <i>Gomphocarpus fruticosus</i>	0.8	10
* <i>Ehrharta longiflora</i>	0.8	50
* <i>Sonchus oleraceus</i>	0.8	20
<i>Acacia rostellifera</i>	0.7	10
* <i>Bromus diandrus</i>	0.5	5
* <i>Euphorbia terracina</i>	0.5	<1
* <i>Euphorbia peplus</i>	0.2	4
* <i>Lysimachia arvensis</i>	0.2	1
* <i>Trifolium campestre</i>	0.2	<1
* <i>Fumaria capreolata</i>	0.1	1
* <i>Hypochaeris glabra</i>	Flat	<1
* <i>Taraxacum officinale</i>	Flat	<1
* <i>Asparagus asparagoides</i>	Climber	1
<i>Clematis linearifolia</i>	Climber	<1

* introduced species

QUADRAT LR5

50 384574 E 6428903 N

Vegetation: Weeds
Condition: Completely Degraded
Landform: Flat
Soil: Mulch
Date: 15.10.21
Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
* <i>Avena fatua</i>	1	10
* <i>Bromus diandrus</i>	0.5	10
* <i>Rhamnus alaternus</i>	0.4	<1
* <i>Solanum nigrum</i>	0.4	<1
* <i>Lolium rigidum</i>	0.3	<1
* <i>Ehrharta longiflora</i>	0.3	<1
* <i>Trifolium campestre</i>	0.2	15
* <i>Fumaria capreolata</i>	0.2	2
* <i>Euphorbia terracina</i>	0.2	1
* <i>Medicago polymorpha</i>	0.1	5
* <i>Oxalis pes-caprae</i>	0.1	1

* introduced species

QUADRAT LR6

50 384549 E 6429225 N

Vegetation: *Melaleuca raphiophylla*/M. *huegelii* Low Open Woodland over weeds

Condition: Completely Degraded

Landform: Flat

Soil: Mulch

Date: 15.10.21

Recorder: P. van der Moezel



QUADRAT (10 x 10m)

SPECIES	HEIGHT (m)	COVER (%)
<i>Melaleuca raphiophylla</i>	5	10
<i>Melaleuca huegelii</i>	4	2
<i>Spyridium globulosum</i>	1.4	5
* <i>Gompholobium fruticosus</i>	1.4	1
* <i>Avena fatua</i>	1.2	2
<i>Acacia rostellifera</i>	0.6	2
* <i>Urospermum picroides</i>	0.6	1
* <i>Ehrharta longiflora</i>	0.5	25
* <i>Euphorbia terracina</i>	0.5	1
* <i>Lolium perenne</i>	0.4	5
* <i>Sonchus oleraceus</i>	0.4	1
* <i>Petrorhagia dubia</i>	0.4	<1
* <i>Asphodelus fistulosus</i>	0.4	<1
* <i>Erigeron bonariensis</i>	0.3	<1
* <i>Lagurus ovatus</i>	0.3	<1
* <i>Briza minor</i>	0.2	<1

SPECIES	HEIGHT (m)	COVER (%)
<i>*Lysimachia arvensis</i>	0.1	4
<i>*Trifolium campestre</i>	0.1	2
<i>*Crassula glomerata</i>	0.1	1
<i>*Euphorbia peplus</i>	0.1	1
<i>*Galium murale</i>	<0.1	<1
<i>*Taraxacum officinale</i>	Flat	<1
<i>*Asparagus asparagoides</i>	Climber	<1

* introduced species

APPENDIX 2

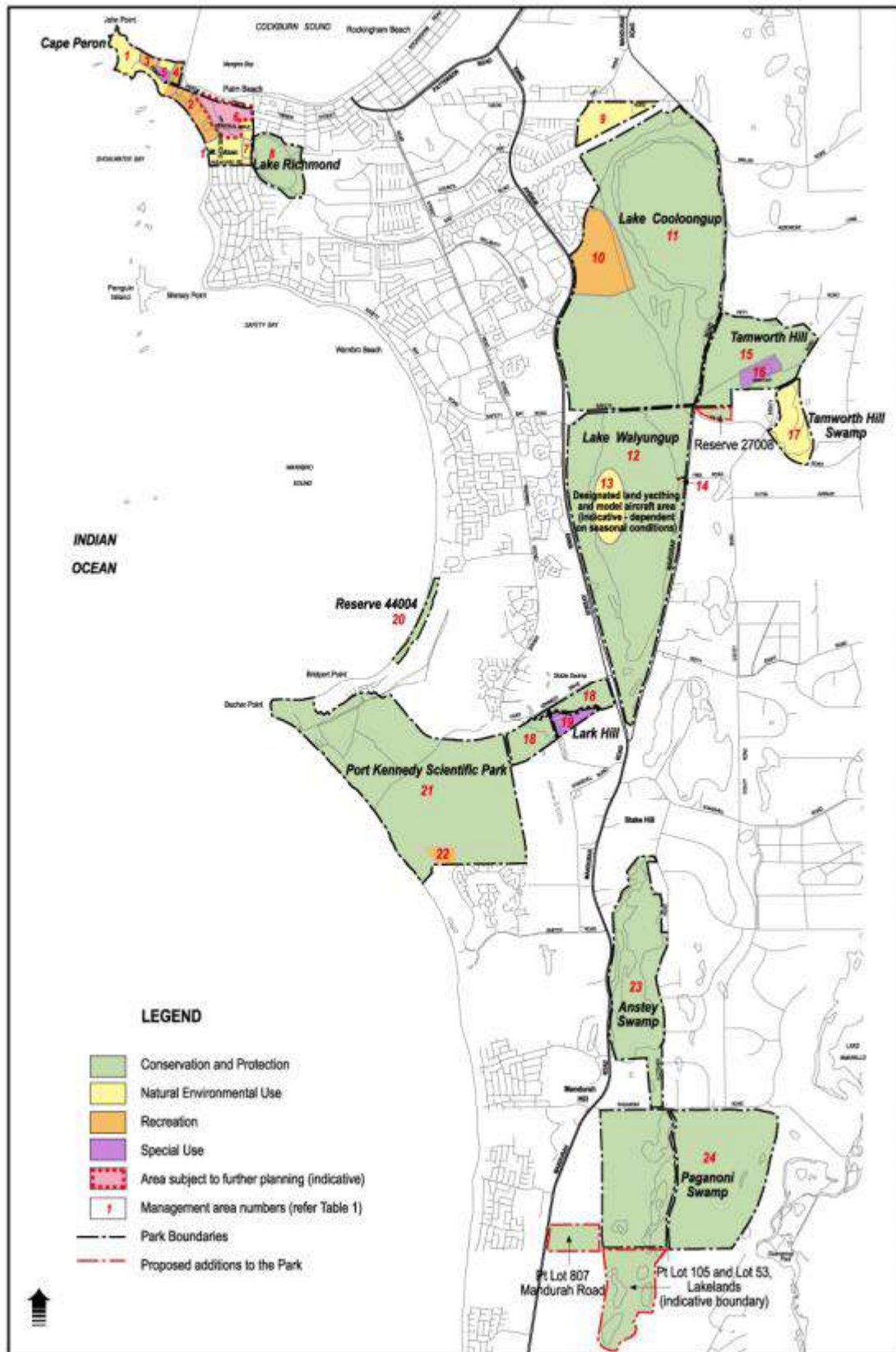
SIGNIFICANT TREE LOCATIONS

Lots 12 and 13 Lodge Road

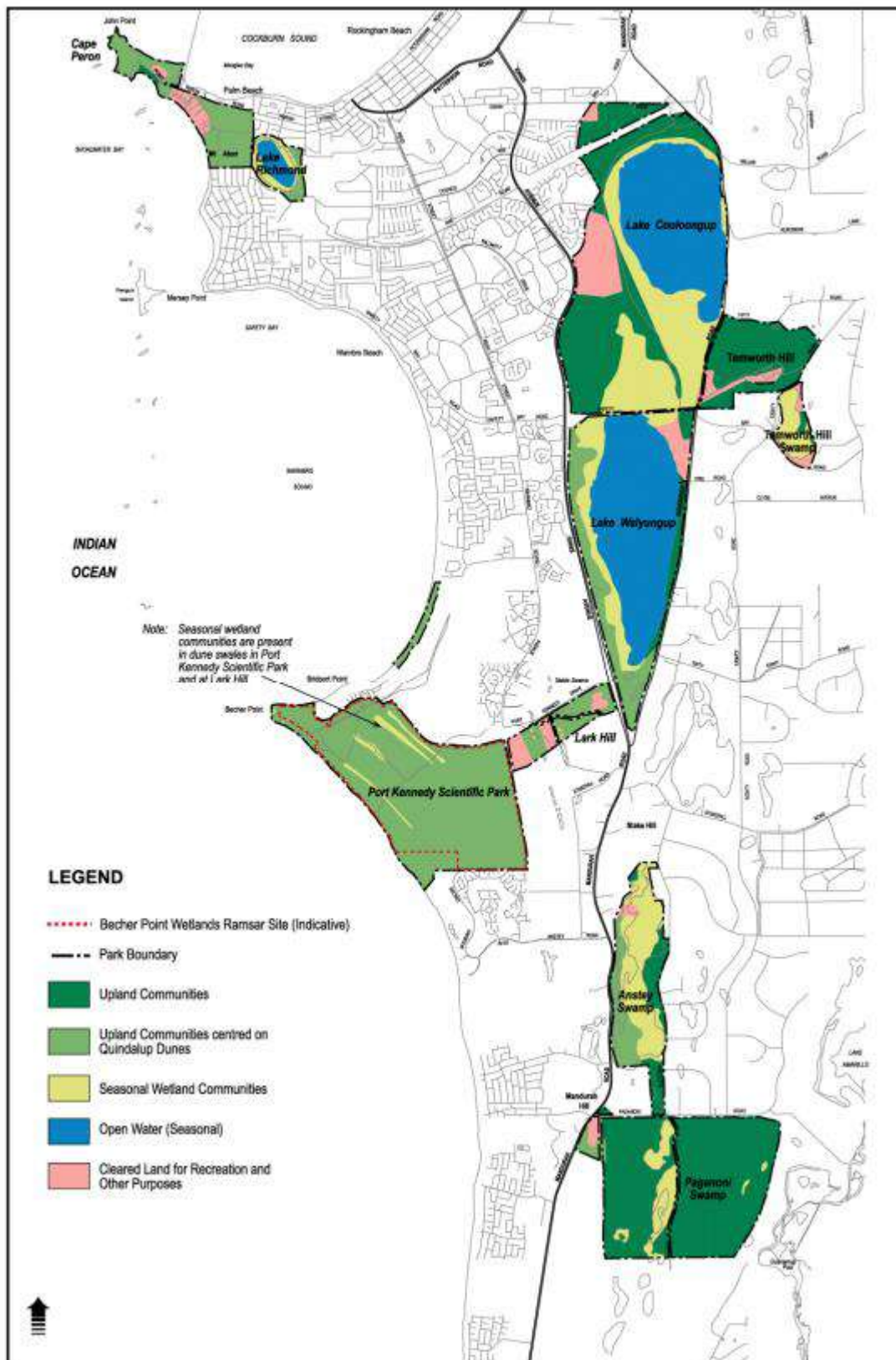
Tree No.	Species	Easting	Northing	DBH	2nd branch	3rd branch	Comments
108	Tuart	384754	6429221	95			
51	Tuart	384620	6429138	94			
94	Tuart	384690	6429232	94			
95	Tuart	384697	6429217	94			
107	Tuart	384769	6429227	93			
98	Tuart	384718	6429236	91			
53	Tuart	384605	6429120	88			
61	Tuart	384527	6429093	86			
76	Tuart	384604	6429184	82			
119	Tuart	384567	6428974	81			
66	Tuart	384536	6429118	79			
73	Tuart	384591	6429155	79			
78	Tuart	384604	6429186	77			
44	Tuart	384621	6429112	74			
89	Tuart	384634	6429227	73			
72	Tuart	384586	6429147	72			
54	Tuart	384605	6429119	70			
64	Tuart	384527	6429112	70			
88	Tuart	384644	6429226	70			
2	Tuart	384655	6428884	69			
129	Tuart	384685	6428872	69			tree in carpark S of big shed
1	Tuart	384654	6428879	68			no hollows or spouts
42	Tuart	384625	6429071	68			
93	Tuart	384681	6429232	68	44		
75	Tuart	384602	6429156	67			
134	Tuart	384768	6428873	67			tree in carpark S of big shed
4	Tuart	384628	6428888	66			
130	Tuart	384704	6428873	66			tree in carpark S of big shed
113	Tuart	384544	6429057	65			
131	Tuart	384721	6428869	65			tree in carpark S of big shed
106	Tuart	384776	6429233	64	24		
110	Tuart	384740	6429221	63			
111	Tuart	384570	6429068	63			
92	Tuart	384651	6429241	62			
43	Tuart	384631	6429095	60			
77	Tuart	384588	6429185	60			
121	Tuart	384585	6428969	60			
70	Tuart	384575	6429142	59			
81	Tuart	384618	6429204	59			
9	Tuart	384650	6428949	58			
80	Tuart	384615	6429197	58			
114	Tuart	384530	6429073	58			
8	Tuart	384636	6428908	57	20		
59	Tuart	384549	6429092	57			
71	Tuart	384582	6429142	57			
60	Tuart	384535	6429103	56			
112	Tuart	384561	6429072	56			
33	Tuart	384627	6429020	55			
36	Tuart	384628	6429028	55			
3	Tuart	384648	6428887	54			
15	Tuart	384611	6428967	54	53		
17	Tuart	384635	6428978	54			
100	Tuart	384745	6429247	54	30		
14	Tuart	384612	6428935	53			
21	Tuart	384609	6428993	51			
31	Tuart	384633	6429014	51			
57	Tuart	384598	6429090	51	38		32
96	Tuart	384704	6429235	50			
105	Tuart	384779	6429234	50	42		
7	Tuart	384622	6428878	49			
22	Tuart	384610	6428995	49			
116	Tuart	384535	6429033	49	42	29	
128	Tuart	384676	6428873	49			tree in carpark S of big shed
6	Tuart	384630	6428883	48			
46	Tuart	384655	6429120	48	41		
56	Tuart	384596	6429088	48	27		
97	Tuart	384683	6429249	48			
102	Tuart	384765	6429246	48			
52	Tuart	384617	6429135	47			

APPENDIX 3

**ROCKINGHAM LAKES REGIONAL
PARK LAND USE ZONES**



From Rockingham Lakes Regional Park Management Plan (DEC, 2010)



APPENDIX 4

**DESCRIPTION OF THE VEGETATION
AND FLORA LIST FOR BUSH
FOREVER SITE NO. 35**

LAKE COOLOONGUP, LAKE WALYUNGUP AND ADJACENT BUSHLAND, HILLMAN TO PORT KENNEDY

Boundary Definition: protected area/bushland (part taken to cadastre) boundary (Areas of bushland within the boundaries of the Site are not accurately mapped.)

SECTION 1: LOCATION INFORMATION

Bush Forever Site no. 356

Area (ha): bushland 1617.5 (Site also includes open water.)

Map no. 69, 70, 74, 75
SW

Map sheet series ref. no. 2033–II NW, 2033–II

Other Names: White Lake, Salt Lake, Lark Hill, Tamworth Hill, part of Rockingham Lakes Regional Park

Local Authorities (Suburb): Shire of Rockingham (Hillman, Cooloongup, Waikiki, Warnbro, Port Kennedy, Baldivis)

System 6 (1983): M103 area of bushland goes beyond System area boundaries, all bushland described

SECTION 2: REGIONAL INFORMATION

LANDFORMS AND SOILS

Bassendean Dunes

Bassendean Sands (Qpb: S8)

Spearwood Dunes

Sands derived from Tamala Limestone (Qts: S7)

Tamala Limestone (Qtl: LS1)

Quindalup Dunes (Holocene dunes)

Safety Bay Sands (Qhs: S13, LS4)

Wetlands (within the Quindalup/Spearwood Dunes)

Holocene Swamp Deposits (Qhw: Cps, Cs1)

Lagoonal and Estuarine Deposits (at or near interface of Quindalup/Spearwood Dunes)

Lagoonal and Estuarine Deposits (Vasse) (Qhg: M5)

VEGETATION AND FLORA

Vegetation Complexes

Spearwood Dunes

Karrakatta Complex — Central and South

Cottesloe Complex — Central and South

Quindalup Dunes

Quindalup Complex

Floristic Community Types: *not sampled, types inferred

Supergroup 2: Seasonal Wetlands

17 *Melaleuca raphiophylla* — *Gahnia trifida* seasonal wetlands

*19a Sedgeland in Holocene dune swales (DEP 1996, equivalent to 19 in Gibson *et al.* 1994, English and Blyth 1997)

19b Woodlands over sedgeland in Holocene dune swales (DEP 1996, equivalent to 19 in Gibson *et al.* 1994, English and Blyth 1997)

Supergroup 3: Uplands centred on Bassendean Dunes and Dandaragan Plateau

21a Central *Banksia attenuata* — *Eucalyptus marginata* woodlands

Supergroup 4: Uplands centred on Spearwood and Quindalup Dunes

24 Northern Spearwood shrublands and woodlands (most southern occurrence)

*29b *Acacia* shrublands on taller dunes

WETLANDS

Wetland Types: lake, sumpland, dampland, artificial lake

Natural Wetland Groups

Spearwood Dunes

Stakehill (S.4)

Quindalup

Cooloongup (Qu.1)

Becher (Qu.2)

Wetland Management Objectives: Conservation (1462.3ha)

Swan Coastal Plain Lakes EPP: 312.8ha + 24.2ha + 438.6ha + 48.8ha = 824.4ha (total)

THREATENED ECOLOGICAL COMMUNITIES

Not assessed, Critically Endangered (floristic community type 19 as defined by Gibson *et al.* 1994)

SECTION 3: SPECIFIC SITE DETAIL

Landscape Features: open water, vegetated wetlands, vegetated uplands

Vegetation and Flora: detailed survey (part Site — Keighery, BJ, *et al.* 1997c, Tingay and Tingay 1977); limited survey (DEP 1999, EPA and WAWA 1990, Gibson *et al.* 1994 (Tam 01, Cool 01–04, 08–09, 11, Kero 01–02), Keighery, GJ, 1996 D (Cool 14–15))

Structural Units: mapping (part Site — EPA and WAWA 1990, Keighery, BJ, *et al.* 1997c, Tingay and Tingay 1977)

Spearwood Dunes

Uplands — Sands derived from Tamala Limestone: *Banksia attenuata* and *B. menziesii* Low Woodland; *Eucalyptus gomphocephala*, *E. marginata* and *Banksia attenuata* Open Forest; *Grevillea vestita* Closed Heath; *Hibbertia hypericoides* Open Low Heath

Quindalup Dunes

Uplands — Beach ridge plain: *Eucalyptus gomphocephala* Woodland to Forest; *Acacia rostellifera* Tall Open Scrub; *Jacksonia furcellata* and *Acacia rostellifera* Shrubland; *Acacia saligna* Low Open Woodland to Low Woodland; *Xanthorrhoea preissii* Open Heath

Wetlands (at or near the interface of the Quindalup and Spearwood Dunes): Open to Closed Sedgelands dominated by *Baumea juncea*, *Gahnia trifida*, *Lepidosperma longitudinale*, *Juncus kraussii* or *Baumea vaginalis* or combinations of these; *Banksia littoralis* Low Woodland; *Melaleuca raphiophylla* Low Woodland to Forest; *Eucalyptus gomphocephala* Woodland to Forest

Wetlands — Beach ridge plain: *Isolepis nodosa* and *Baumea juncea* Closed to Open Sedgeland, generally with an overstorey of *Xanthorrhoea preissii*

Scattered Native Plants: *Eucalyptus gomphocephala* Woodland; *Acacia saligna* Low Woodland; *Xanthorrhoea preissii* Open Heath

Vegetation Condition: >60% Very Good to Pristine, <40% Good to Degraded, with areas of severe localised disturbance

Total Flora: 174 native taxa, 82 weed taxa (part Site — Keighery, BJ, *et al.* 1997c) (>85% of expected flora)

Significant Flora: Keighery, BJ, *et al.* 1997c — *Trachymene coerulea*, *T. pilosa* (distinct form found also at Rottnest Island), *Sonchus hydrophilus* (at risk), *Atriplex suberecta* (not previously recorded on the Swan Coastal Plain), *Linum marginale* (rarely recorded on Quindalup dunes), *Acacia pulchella* var. *goadbyi* (only known occurrence on the Swan Coastal Plain), *Eremophila glabra* subsp. *albicans*, *Jacksonia furcellata* (floriferous shrub form), *Kennedia coccinea* (becoming increasingly uncommon on the western margins of the Plain)

Fauna: multiple surveys for birds (73 species) (Tingay and Tingay 1977; RAOU 1996 D, 3 visits), limited survey for native mammals (2 species), reptiles (1 species), amphibians (3 species) and fish (1 species) (Tingay and Tingay 1977). Significant bird species: category 2 (6), category 3 (10), category 4 (5). Significant population of Black Swan. Significant mammal species: Western Brush Wallaby and Quenda (Friend 1996 D)

Linkage: adjacent bushland to the north (Site 349, across road), south, east and west (Site 377, across road); part of Greenways 83, 85, 86, 89, 122 (Tingay, Alan & Associates 1998a); part of a regionally significant contiguous bushland/wetland linkage (Part A, Map 7)

Other Special Attributes

Meets five of the six specific criteria for coastal reserves—

- (i) Quindalup Dune types: beach ridge plain and older dunes
- (ii) Continuing natural processes: 1079.4ha (837.4 bushland) of Quindalup Dunes extending to 8.8km inland (through Site 377 to coast)
- (iv) Linkage: Quindalup/Spearwood Dunes (Tamala Limestone) interface
- (v) Vegetation: five regional floristic groups, one of which is a threatened community
- (vi) Habitats: see Fauna section above;

Part Site (Lake Cooloongup and Lake Walyungup) — wetland of ‘national significance’; part Site (Tamworth Lakes) — wetland of ‘regional significance’ (Semeniuk, V&C Research Group 1991b); contains examples of microbialites, organo-sedimentary structures formed by microorganisms, the oldest life-form on earth (Tingay, Alan & Associates 1997); majority of Site included in Port Kennedy and Rockingham Parks proposal (Tingay, Alan & Associates 1997)

SECTION 4: INTERNATIONAL AND NATIONAL SIGNIFICANCE

Entered in the Register of the National Estate; location for JAMBA/CAMBA species; subject to protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

SECTION 5: SELECTION CRITERIA AND RECOMMENDATIONS

Criteria: Representation of ecological communities, Diversity, Rarity, Maintaining ecological processes or natural systems, Scientific or evolutionary importance, General criteria for the protection of wetland, streamline and estuarine fringing vegetation and coastal vegetation

Recommendation: Part A: Site with Some Existing Protection; the care, control and management of this Site for conservation purposes within Rockingham Lakes Regional Park is endorsed. Part B: Other Government Land Mechanism. Part C: Proposed Parks and Recreation Reservation (see Table 3, Volume 1).

9.4.Appendix 4: Revegetation Plant Species List for 2025 Planting Season

EPBC 2021/9069 Lot 333 Tuart TEC Revegetation Species List

2025 Planting Season

Overstory	
Eucalyptus gomphocephala +5%	672
Allocasuarina fraseriana.	500
Midstory	
Acacia cochlearis	564
Acacia lasiocarpa	564
Acacia pulchella	565
Acacia saligna	565
Banksia menziesii	565
Banksia littoralis	565
Banksia sessilis	565
Jacksonia furcellata	565
Melaleuca teretifolia	564
Templetonia retusa	565
Understory	
Conostylis aculeata	1440
Hardenbergia comptoniana	1440
Olearia axillaris	1440

9.5. Appendix 5: DBCA Lawful Authority for Offset Site Access



Department of **Biodiversity,
Conservation and Attractions**

REGULATION 4 LAWFUL AUTHORITY

[A LAWFUL AUTHORITY APPLICABLE TO REGULATIONS 4 and 35A OF THE CONSERVATION AND LAND MANAGEMENT REGULATIONS 2002]

Pursuant to the provisions of regulation 4(1) of the Conservation and Land Management Regulations 2002 (the Regulations) this notice (the Authority) gives “lawful authority” to the person named thereon (the authority holder) to undertake or perform the activity described under “Purpose” (below), that would otherwise be unlawful under the regulations cited in this authority.

AUTHORITY HOLDER DETAILS

Name: Hamersley 1 WA PTY LTD as Trustee for Hamersley Sub Trust
(Surname) (Other Names)

Address: Level 6, 1008 Hay Street, Perth, WA, 6000

Phone: 0466 506 802

Affiliation: Hamersley 1 WA PTY LTD as Trustee for Hamersley Sub Trust

Email: Nick.dalziell@ovest.net.au

Purpose: To undertake revegetation and rehabilitation works within a portion of Lot 333, and 328 on plan 202704, East Rockingham, as an environmental offset required under Clearing Permit CPS 9710/1. The works involve the planting and establishment of 3.5 hectares of native vegetation, including flora species that provide foraging and breeding habitat for Carnaby’s cockatoo (*Zanda latirostris*), and species representative of the Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain Threatened Ecological Community (TEC), in accordance with permit conditions and to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

Application: Associated with Offset Implementation Plan submitted to DBCA on 10/04/2025 under Clearing Permit CPS 9710/1.

The following areas of CALM Land shall be “approved CALM land” for the purposes of this Authority,
between the dates specified: -

Lot 333, and Lot 328 on Plan 202704

Between: **21/04/2025** and **17/04/2026** or sooner if revoked.

Conditions applying to the "lawful authority" granted under this notice:

1. This Authority, together with the accompanying attached conditions, is a written notice for the purposes of Regulation 4(1) of the Conservation and Land Management Regulations 2002 (the Regulations) and it authorises the person named as the authority holder to carry out certain acts on CALM Land as described under "purpose" (above) that would otherwise be unlawful under the Regulation cited in this authority.
2. This Authority does not comprise lawful authority to enter CALM Land the subject of Division 1 of Part 3 of the Regulations unless the land and/or waters described below ("CALM Land") is defined in Regulation 2 to mean land, or land and waters to which the Regulations apply, including caves and parts of caves on, or under that land. The Regulations apply to the land and waters described in Regulation 3 of the Regulations.
3. Vehicles entering CALM lands must be in must be in good running condition; free of fuel, oil and hydraulic leaks.
4. Strict dieback hygiene procedures must be adhered to. Vehicles and equipment to be free of soil and vegetative material prior to entry.
5. All vehicles are to keep to established tracks.
6. Gates to be closed and locked after entry and exit.
7. All equipment and machinery are to be clean on entry.
8. Works to be restricted to times of dry soil conditions where possible.
9. The works undertaken on site are to be in alignment with the approved Lot 333 Mandurah Road Warnbro Tuart TEC Revegetation Management Plan Version 5 (PGV Environmental 2025) or any future approved revisions of the plan as per Condition 4 of the EPBC Approval 2021/9069.
10. The applicant may sub-contract others to undertake the revegetation works. DBCA Regional Parks Unit will need to be provided with the contact details of those being sub-contracted at least two weeks prior to them needing to access the site.
11. licensee is to notify Zacc Phillips Operations Officer on 0418 913 074 at least 72 hours prior to works commencing on site.
12. There is to be no earth spoil, vegetation or any other debris disposed of within the reserve.
13. The contractor should make good any damage to the reserve and return to pre-works condition.
14. The clearing of native vegetation is not permitted.



Tim Fisher
Manager, Regional Parks Unit
Swan Region

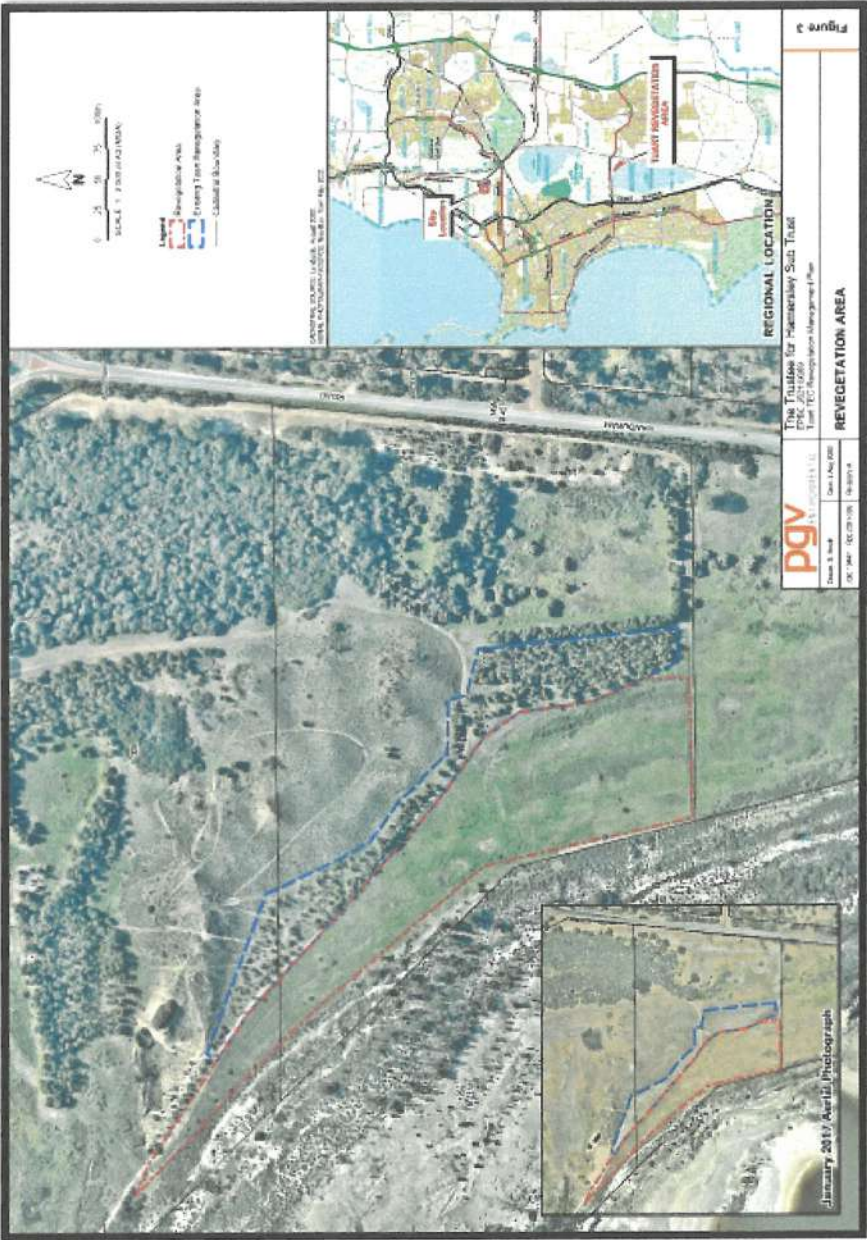
DATE OF ISSUE

16/4/25

Please note

This authority is not transferable to any other person and is not valid for any other purpose other than the purpose(s) stated





9.6. Appendix 6: Notice of Non-Compliance- Reporting

Department of Climate Change,
Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601
Australia

31/03/26

Dear Compliance Monitoring Team,

Re: Notification of Non-Compliance – EPBC Approval 2021/9069
Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA

In accordance with Conditions 29–31 of EPBC Approval 2021/9069, this correspondence serves as formal notification of a non-compliance identified in relation to annual compliance reporting obligations.

Approval Holder: The Trustee for Hamersley Sub Trust
ABN: 81 176 233 525

Project: Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA
(EPBC 2021/9069)

Contact: Nick Dalziell
Senior Development Manager
Realside Ovest
Level 11, 108 St Georges Terrace, Perth WA

Condition Breached

The non-compliance relates to Conditions 25–28, which require the preparation, publication, and notification of annual compliance reports.

Description of Non-Compliance

The approval holder did not prepare, publish, or submit annual compliance reports for the following reporting periods:

April 2023 – April 2024

April 2024 – April 2025

The non-compliance was identified following correspondence from the department during the current audit process, in which it was noted that annual compliance reports could not be located.

The approval holder had engaged an external environmental consultant (PGV Environmental) to support environmental compliance for the project. It was understood that preparation and coordination of the annual compliance reports formed part of the consultant's scope, based on prior discussions and indicative timelines provided.

Following identification of the issue, the approval holder contacted the consultant. Correspondence received on 30 March 2026 confirmed that the consultant previously responsible for the project (now retired) had commenced preparation of the reports but did not complete or submit them.

Notwithstanding this, the approval holder acknowledges that responsibility for compliance with these conditions remains with the approval holder.

Timing and Location of Non-Compliance

Date of awareness of non-compliance: 30/03/26 when confirmation on non-compliance received from environmental consultant.

Extent and Impact of Non-Compliance

The non-compliance relates to administrative and reporting requirements only.

No additional clearing, physical disturbance, or environmental impact has arisen as a result of the failure to prepare and publish the annual compliance reports. The approval holder has maintained internal records of project activities, environmental management actions, and implementation of approval conditions throughout the relevant periods.

Impact Assessment:

The approval holder considers the environmental impact of this non-compliance to be low, noting that the issue is limited to reporting and documentation rather than implementation of on-ground measures.

Corrective Actions Undertaken

Since becoming aware of the non-compliance, the following actions have been taken:

- Immediate engagement with PGV Environmental to confirm the status of the outstanding reports
- Internal review of compliance obligations and reporting requirements under the approval
- Compilation of relevant project records and data required to complete the outstanding reports
- Implemented internal controls, including formal calendarisation of all compliance reporting deadlines
- Established clearer oversight of consultant responsibilities, with internal verification prior to submission deadlines
- Assigned direct accountability within the organisation for tracking and delivery of compliance reporting obligations

Proposed Corrective Actions

The approval holder will undertake the following actions:

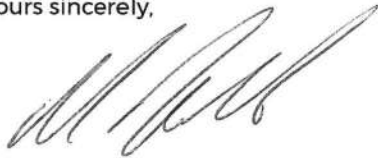
- Complete the outstanding annual compliance reports for the following periods:
 - April 2023 – April 2024
 - April 2024 – April 2025
- Ensure reports are prepared in accordance with the department's Annual Compliance Report Guidelines (2014)
- Submit the completed reports to the department and publish them on the project website as soon as practicable following internal review and sign-off

- Provide notification to the department with relevant weblinks in accordance with Condition 28

The approval holder will ensure all future compliance reports are prepared, published, and notified within the required statutory timeframes.

We respectfully submit this notice in good faith and remain committed to full compliance with all conditions of EPBC 2021/9069. Please contact the undersigned should you require any additional information or clarification.

Yours sincerely,



Nick Dalziell
Senior Development Manager
Realside Ovest
nick.dalziell@ovest.net.au | 0466 506 802

9.7. Appendix 7: Clearing Aerial Images Showing Clearing Activities Extents



Figure 1:4 Lodge Drive highlighted, with nearmaps website showing the image is from August 30th 2023, before the clearing action was undertaken.



Figure 2:6 Lodge Drive highlighted, with nearmaps website showing the image is from August 30th 2023, before the clearing commenced



Figure 3:4 and 6 Lodge Drive highlighted, with nearmaps website showing the image is from October 15th 2023, after the clearing action was undertaken.

9.8. Appendix 8: Letter of Approval- Revegetation Management Plan



Australian Government

National Environmental Protection Agency

EPBC 2021/9069

Julie Drago
The Trustee for Hamersley Sub Trust
Chief Executive Officer
Email: julie.drago@ovest.net.au

Approval of Tuart TEC Revegetation Management Plan for Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA

Dear Ms Drago

Thank you for your email of 17 June 2026 to the National Environmental Protection Agency seeking approval of the Revegetation Management Plan in accordance with conditions 4 and 5 of the approval for the Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The agency has reviewed the Revegetation Management Plan against the requirements of the approval conditions and provided advice to me on its adequacy. Having considered that advice, and as a delegate of the Minister for the Environment and Water, I have decided to approve the *Tuart TEC Revegetation Management Plan, Version 7, 23 June 2026*.

The approved plan must now be implemented in accordance with the approval conditions. The plan must also be published as required by the conditions of approval.

As you are aware, the agency 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 agency on request.

Should you require any further information please contact Michele Greenfield by email at PostApproval@nationalepa.gov.au.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Julie Kennett'.

Julie Kennett
Acting Branch Head
Environment Assessments West Branch
Environment Regulation Division
20 September 2026

9.9.Appendix 9: DBCA Letter of Confirmation



Australian Government

National Environmental Protection Agency

EPBC 2021/9069

Julie Drago
The Trustee for Hamersley Sub Trust
Chief Executive Officer
Email: julie.drago@ovest.net.au

Approval of Tuart TEC Revegetation Management Plan for Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA

Dear Ms Drago

Thank you for your email of 17 June 2026 to the National Environmental Protection Agency seeking approval of the Revegetation Management Plan in accordance with conditions 4 and 5 of the approval for the Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, Western Australia, under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The agency has reviewed the Revegetation Management Plan against the requirements of the approval conditions and provided advice to me on its adequacy. Having considered that advice, and as a delegate of the Minister for the Environment and Water, I have decided to approve the *Tuart TEC Revegetation Management Plan, Version 7, 23 June 2026*.

The approved plan must now be implemented in accordance with the approval conditions. The plan must also be published as required by the conditions of approval.

As you are aware, the agency 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 agency on request.

Should you require any further information please contact Michele Greenfield by email at PostApproval@nationalepa.gov.au.

Yours sincerely,

A handwritten signature in black ink, reading 'Julie Kennett'.

Julie Kennett
Acting Branch Head
Environment Assessments West Branch
Environment Regulation Division
20 September 2026

9.10. Appendix 10: Notice of Non-Compliance- Commencement of Action Prior to RMP Approval

Department of Climate Change,
Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601
Australia

30/03/26

Dear Compliance Monitoring Team,

Re: Notification of Non-Compliance – EPBC Approval 2021/9069
Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA

In accordance with Conditions 29–31 of EPBC Approval 2021/9069, this correspondence serves as formal notification of a non-compliance identified in relation to the above approval.

Approval Holder	The Trustee for Hamersley Sub Trust ABN: 81 176 233 525
Project	Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA (EPBC 2021/9069)
Contact	Nick Dalziell Senior Development Manager Realside Ovest Level 11, 108 St Georges Terrace, Perth WA

Condition Breached

The non-compliance relates to Condition 6, which states:

"The approval holder must not commence the action until the Minister has approved the Revegetation Management Plan in writing."

The action, including site clearing, construction of the industrial workshop and warehouse facility, and associated development works, and revegetation works on the offset site, was commenced prior to formal written approval of the Revegetation Management Plan (RMP) by the Minister.

Description of Non-Compliance

The non-compliance was identified during a detailed internal review undertaken in response to a departmental audit.

The approval holder's understanding was that submission and progression of the RMP through departmental review allowed for commencement of the action through a misinterpretation of condition 4, which only asked for the submission of the RMP before action commenced. There is also the context of multiple concurrent approvals. These include the DCCEE decision notice, JDAP approval for the clearing and development of the site, a building permit issued by the local authority for construction commencement, and a clearing permit issued by DWER.

The RMP has undergone multiple iterations and ongoing engagement with the department, as summarised below:

RMP V3 submitted: Late 2023
DCCEEW feedback on RMP V3 received: April 2024
RMP V4 submitted: April 2024
DCCEEW feedback on RMP V4 received: April 2024
RMP V5 submitted: March 2025

Since submission of Version 5, limited feedback has been received, with advice indicating resourcing constraints within the department and no confirmed timeframe for when any assessment of the revisions will be started or completed.

An external environmental consultant, PVC Environmental, has been engaged throughout this process and has undertaken regular follow-up with the department.

Notwithstanding the above, it is now acknowledged that commencement of the action prior to formal written approval of the RMP constitutes a breach of Condition 6.

We also note that the offset revegetation works were begun to keep in line with the requirements of both the DCCEEW, and DWER clearing approvals which required the revegetation works to be commenced within 2 years of the action being commenced. We note that these works have been completed with oversight from the DBCA through approvals of the planting species selection, and methodology.

Timing and Location of Non-Compliance

Location: 6 Lodge Drive, East Rockingham, Western Australia

Key dates:

- Site clearing undertaken: September 2023
- Construction commenced (industrial workshop and warehouse facility): October 2024
- Construction completed: January 2026
- Revegetation works commenced at offset site: May 2025

Date of awareness of non-compliance with condition 6:

- Approximately 5 business days prior to this notification: 24/03/2026

This notification is submitted outside the 2-business day period specified under Condition 29. The delay is attributable to internal verification and confirmation of the compliance position following identification during the audit process. We regret the delay but wanted to ensure we had a full and comprehensive response prepared.

Extent and Impact of Non-Compliance

Clearing Works

- Tuart Ecological Community:
Approved to be cleared: 5.495 ha (within development site)
Actual cleared: within approved disturbance footprint and not exceeding 3.9 ha
- Carnaby's Black Cockatoo Foraging Habitat:
Approved to be cleared: 1.5 ha
Actual cleared: approximately 1.4 ha, within the defined development site

No clearing occurred outside the area approved under the DCCEEW approval nor the DWER approval.

The clearing of the site was completed in compliance with the methods required by the permits.

Construction Works

- The Tyre recycling facility approved by JDAP determination: 20.2022.391.1 issued by the Western Australian Development Assessment Panels, and Building Permit: 1.2024.2272.1 issued by Rockingham Council, was constructed in full on the subject site.

Offset Revegetation Works

- Access Permit for the offset site has been obtained through a licence with DBCA
- Species selection has been confirmed and approved with DBCA inclusive of replacement species due to seasonal stock issues
- Fencing of the offset site has been completed as per the RMP V5
- Revegetation works for the offset have been undertaken by our external contractor Natural Area as per the RMP V5, in coordination with DBCA for access and works approvals.

Impact Assessment

The approval holder considers the environmental impact of the non-compliance to be low, on the basis that:

The clearing and development were approved under both State and Commonwealth processes. The non-compliance relates to procedural timing (approval of the RMP), rather than the extent or nature of clearing undertaken.

The RMP is well advanced and has undergone multiple rounds of detailed review by the department, with only minor revisions requested in the most recent feedback.

Revegetation and offset works are already underway and subject to long-term management obligations (40 years).

Revegetation works were commenced in May 2025 to comply with both State and Commonwealth approval requirements, which require revegetation to be initiated within two years of commencement of the action. The works have been completed and internally audited to comply with the RMP V5 and guidance from DBCA.

Corrective Actions Undertaken

Since becoming aware of the non-compliance, the following actions have been taken:

- Completion of a comprehensive internal compliance review of all approval conditions
- Engagement with the project's environmental consultant to confirm compliance status and ongoing requirements
- Continued follow-up with the department regarding assessment and approval of the RMP (Version 5)

Proposed Corrective Actions

The approval holder will undertake the following actions to address the non-compliance:

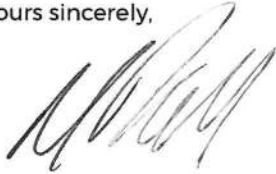
- Continue active engagement with the department to facilitate assessment and formal approval of the RMP (Version 5)
- Respond promptly to any further requests for information or revisions to the RMP
- Implement any required amendments to the RMP immediately upon approval
- Continue and adapt revegetation works at the offset site in accordance with the final approved RMP

- Maintain ongoing oversight through the project's environmental consultant to ensure full compliance moving forward

The approval holder considers that, upon approval of the RMP and implementation of any final requirements, the project will be brought into full compliance with Condition 6.

We respectfully submit this notice in good faith and remain committed to full compliance with all conditions of EPBC 2021/9069. Please contact the undersigned should you require any additional information or clarification.

Yours sincerely,



Nick Dalziell
Senior Development Manager
Realside Ovest
nick.dalziell@ovest.net.au | 0466 506 802

9.11. Appendix 11: Notice of Non-Compliance- Notice of Commencement of Action

Department of Climate Change,
Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601
Australia

08/07/2025

Dear Compliance Monitoring Team,

I am writing on behalf of The Trustee for Hamersley Sub Trust, the approval holder for EPBC 2021/9069 – Commercial Development of Lots 12 and 13 Lodge Drive, East Rockingham, WA.

This notification is being provided in accordance with Conditions 18 and 29-31 of the EPBC approval. It has come to our attention that we did not provide the required written notification to the Department within 5 business days of the commencement of the Action, as required under Condition 18.

Details of the Breach:

- Condition Breached: Condition 18 – Notification of Commencement
- Date of Commencement of the Action (clearing): 1 September 2023
- Date Breach Identified: 7 July 2025
- Date of Notification: 8 July 2025

We acknowledge that this represents a technical non-compliance. The failure to submit timely notification was the result of an administrative oversight and not an intentional breach. No environmental impacts outside of the approved development envelope or conditions have occurred.

Corrective and Preventative Actions:

- This incident has been logged in our internal compliance register.
- We are implementing a revised compliance tracking system that includes automated reminders for key EPBC conditions and reporting deadlines.
- Relevant personnel will undergo refresher training on compliance obligations under the EPBC Act.

We respectfully submit this notice in good faith and remain committed to full compliance with all conditions of EPBC 2021/9069. Please advise if further information or corrective actions are required from our side in relation to this matter.

Sincerely,

A handwritten signature in blue ink, appearing to read "Nick Dalziell", written over a faint, light blue circular watermark.

Nick Dalziell
Senior Development Manager
Realside Ovest as representative for The Trustee for Hamersley Sub Trust
0466 506 802
nick.dalziell@ovest.net.au