ANNUAL COMPLIANCE REPORT

EPBC 2007/3333
NEW SPORTING FIELD
BUNBURY CATHEDRAL GRAMMAR SCHOOL
GELORUP, WESTERN AUSTRALIA

17 JANUARY 2019 TO 16 JANUARY 2020

PREPARED FOR:

BUNBURY CATHEDRAL GRAMMAR SCHOOL
ABN: 36 007 093 540

APRIL 2020

PREPARED BY:

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MBS ENVIRONMENTAL

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environmental and geoscience consultants

EPBC No 2007/3333
Annual Compliance Report 2019

Distribution List:

Company	Contact name	Copies	Date
Bunbury Cathedral Grammar School	Jennifer Nobbs, Director of Business and Administration	Electronic	6 April 2020

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Draft Annual Compliance Report	Kirsi Kauhanen	Kristy Sell	2 April 2020
Final Annual Compliance Report	Kirsi Kauhanen	Kristy Sell	3 April 2020

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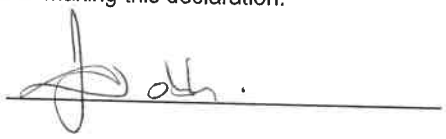
1. DECLARATION OF ACCURACY

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:	Jennifer Nobbs
Position:	Director of Business and Administration
Organisation:	Bunbury Cathedral Grammar School
Date:	9/4/2020

2. INTRODUCTION

In December 2010, Bunbury Cathedral Grammar School (BCGS) was granted approval EPBC 2007/3333 under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) to clear 2.3 ha of native vegetation for a new sporting field at the school premises on Lot 73 Allen Road, Gelorup, Western Australia (WA). In order to offset the impacts of the vegetation clearing on Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoos (*Calyptorhynchus baudinii* and *C. latirostris*), protected under the *EPBC Act*, the approval required implementation of a Rehabilitation Management Plan (RMP) at Lot 9 on Plan 43302 in Stratham, WA.

The original RMP (September 2010) was a five year plan implemented from May 2011 to April 2016. Due to some of the set completion criteria not being achieved by the end of April 2016, an extension to the rehabilitation program was necessary. EPBC 2007/3333 approval was revised with a Variation to Conditions signed on 23 December 2016 requiring preparation and implementation of a revised RMP. RMP Rev2 (March 2017) was approved in March 2017.

This document comprises the Annual Compliance Report for 2019, for the reporting period of 17 January 2019 to 16 January 2020. It has been prepared to fulfil the requirements of the EPBC 2007/3333 Variation to Conditions (December 2016) or when a condition did not change the original EPBC 2007/3333 approval (December 2010) and the associated RMP Rev2 (March 2017).

3. DESCRIPTION OF ACTIVITIES

EPBC Number:	2007/3333 Original approval dated 21 December 2010 Variation to Conditions dated 23 December 2016
Project Name:	Construction of New Sporting Field
Approval Holder and ABN:	Bunbury Cathedral Grammar School (ABN: 36 007 093 540)
Approved Action:	To construct new sporting field at the school premises involving clearing of up to 2.3 ha of remnant vegetation.
Location of the Project:	Vegetation clearing: Lot 73 Allen Road, Gelorup, WA Offset rehabilitation: Lot 9 Plan 43302 Stratham, WA
Reporting Period:	17 January 2019 - 16 January 2020
Activities undertaken during Reporting Period:	Implementation of RMP Rev2 (March 2017).
Person accepting responsibility for the report – signed declaration (see Section 1):	Jennifer Nobbs – Director of Business and Administration
Date of Report:	6 April 2020

4. ASSESSMENT OF COMPLIANCE WITH EPBC 2007/3333

Compliance with EPBC 2007/3333 during the Reporting Period was determined via a desktop audit by Senior Environmental Scientist Kirsi Kauhanen from MBS Environmental. It comprised two main parts as follows:

- Assessment against EPBC 2007/3333 Variation to Conditions dated 23 December 2016, or when a condition did not change, against the original EPBC 2007/3333 approval dated 21 December 2010. The associated compliance assessment results are detailed in Appendix 1
- Assessment against RMP Rev2 (March 2017). The associated compliance assessment results are detailed in Appendix 2.

5. NON-COMPLIANCE WITH EPBC 2007/3333

5.1 SUMMARY OF NON-COMPLIANCE

No non-compliances were identified with the EPBC 2007/3333 Variation to Conditions (December 2016) or where applicable the original EPBC 2007/3333 approval (December 2010) during the Reporting Period (Appendix 1).

One partial non-compliance was identified with the RMP Rev2 (March 2017) during the Reporting Period, being the failure to maintain milestone of 1,500 stems/ha in the Western Rehabilitation Area over the 2018/2019 summer period (Table 1, Appendix 2).

Table 1: Non-Compliances with RMP Rev2 (March 2017)

RMP Section	Key Management Measures	Compliance from 17/01/18 to 16/01/19	Evidence/Comments
7 Performance and Completion Criteria (Table 9 of RMP Rev2).	Milestones (by 31 December 2017)	Partly non-compliant	The milestones are required to be maintained. Stem density milestone of 1,500 stems/ha was not maintained in Western Rehabilitation Area over the 2018/2019 summer period, as noted in the autumn 2019 monitoring report (Appendix 5). However, the milestone was again achieved by spring 2019 in all rehabilitation areas (Appendix 6). All other milestones were maintained.

5.2 CORRECTIVE/PREVENTATIVE ACTIONS TAKEN

Infill planting was undertaken in Eastern and Western Rehabilitation Areas during winter 2019 to increase the stem density.

5.3 RESULTS OF CORRECTIVE/PREVENTATIVE ACTIONS

Rehabilitation monitoring in spring 2019 showed that stem density in Western Rehabilitation Areas exceeded the milestone of 1,500 stems/ha and thus the partial non-compliance had been rectified.

5.4 FURTHER ACTIONS REQUIRED

None.

6. NEW ENVIRONMENTAL RISKS

There were no new risks identified during the Reporting Period. The RMP Rev2 (March 2017) includes a comprehensive risk assessment.

7. ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Over the next Reporting Period from 17 January 2020 to 16 January 2021, the following activities are planned:

- BCGS will continue to implement the revised RMP Rev2 (March 2017) including infill planting of seedlings during winter 2020, weed control and biannual monitoring.
- As rehabilitation monitoring indicates that the completion criteria have been achieved in all rehabilitation areas, BCGS will pursue project closure and the removal of any further rehabilitation obligations with the Federal Department of Agriculture, Water and the Environment.

APPENDICES

APPENDIX 1: COMPLIANCE ASSESSMENT - EPBC 2007/3333 VARIATION TO CONDITIONS (DECEMBER 2016) AND ORIGINAL EPBC 2007/3333 APPROVAL (DECEMBER 2010)

Table A1: Compliance Assessment - EPBC 2007/3333 Variation to Conditions (December 2016) and original EPBC 2007/3333 Approval (December 2010)*

Condition Number*	Condition	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
1	The person taking the action must clear no more than 2.3 hectares of native vegetation at the school premises on Lot 73 Allen Road, Gelorup, Western Australia in the area depicted with the pink line on the map at Attachment A.	Compliant	Clearing was undertaken in 2011 (as previously reported) and no additional clearing under this approval has been undertaken since.
2	By 30 March 2017 the approval holder must submit for the Minister's approval a revised version of the Rehabilitation Management Plan (RMP) at Attachment B of the approval dated 21 December 2010. The purpose of the revised RMP is to rehabilitate the Rehabilitation Areas to provide habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoos (*Calyptorhynchus baudinii* and *C. latirostris*). The revised RMP must be prepared in accordance with the Department's *Environmental Management Plan Guidelines (2014)*, and must include: 1. The following milestones; By 31 December 2017 achieve and maintain an overall plant density: i. of 1500 stems per hectare in the Western Rehabilitation Area and Eastern Rehabilitation Areas. ii. of 380 stems per hectare within the Sumpland Rehabilitation Area. 2. The following outcomes; By 30 June 2021, the Rehabilitation Areas will achieve: i. a self-sustaining vegetation community that, in the longer term, will provide habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoos (*Calyptorhynchus baudinii* and *C. latirostris*). ii. a species diversity of at least 80% of the appropriate species. iii. an average live weed cover of less than 50%. 3. Environmental management actions to achieve the above milestones and outcomes, including; i. site planting activities. ii. ongoing site maintenance. 4. The timing of environmental management actions.	Compliant	RMP Rev2 was submitted on 20 March 2017 and was approved on 29 March 2017 (Appendix 3).

Condition Number*	Condition	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
2 cont.	5. A monitoring program, which must include: i. performance indicators comprised of clear and concise criteria which are capable of accurate and reliable measurement, against which achievement of outcomes will be determined. ii. monitoring requirements, including the timing and frequency of monitoring activities to detect changes in the performance indicators, to determine if outcomes are being achieved, and to inform adaptive implementation of the RMP. 6. Trigger values, and corrective actions where trigger values are reached, reporting requirements, and how environmental incidents and emergencies will be managed. 7. Effort and resources to ensure outcomes and milestones are achieved when monitoring results indicate that outcomes or milestones are not on track to being achieved. 8. Annual reporting requirements including a commitment to notify the Department within 14 days following a failure to meet milestone targets outlined in condition 2. If the Minister approves the revised RMP the revised RMP must be implemented.		
3	~~Within 5 years of the commencement of the action, the person taking the action must implement all of the activities and meet all of the completion criteria in the Rehabilitation Management Plan at Condition 2 above to the satisfaction of the Minister. Any changes to the outcomes to be achieved in the Rehabilitation Management Plan must be approved by the Minister.~~	Not applicable	Condition revoked in Variation to Conditions (December 2016).
4	Within 30 days of commencement of the action, the person taking the action must advise the Department in writing the actual date of commencement.	Not relevant to reporting period	Action substantially commenced in 2011.
5	If at any time after 5 years from the date of this approval, the Minister notifies, in writing, the person taking the action that the Minister is not satisfied that there has been substantial commencement of the action, the action must not thereafter be commenced without written agreement of the Minister.	Not relevant to reporting period	Action substantially commenced in 2011.
6	If the person taking the action wishes to carry out any activity otherwise than in accordance with the plan, as specified in Condition 2, the person taking the action must submit to the Department for the Minister's written approval a revised version of that plan. The varied activity shall not commence until the Minister has approved the revised plan in writing. The Minister will not approve a revised plan unless the revised plan would result in an equivalent or improved environmental outcome. If the Minister approves the revised plan that plan must be implemented in place of the plan originally approved.	Not relevant to reporting period	There was no need to carry out activity otherwise than in accordance with RMP Rev2 (March 2017).

Condition Number*	Condition	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
7	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the RMP required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	Relevant records attached to this Annual Compliance Report (see Appendices). No records requested by the Department during the Reporting Period.
8	Within three months of every 12 month anniversary of the commencement of the action, the approval holder must publish a compliance report and provide documentary evidence providing proof of the date of publication to the Department by email (to EPBCMonitoring@environment.gov.au or another email address agreed to in writing by the Minister). The first compliance report must cover the period beginning on the day of the commencement of the action through 12 months, and subsequent compliance reports must cover the 12 month period after the previous compliance report. The approval holder may cease preparing compliance reports required by this condition with written agreement of the Minister. Compliance reports must: consider the Department's Annual Compliance Report Guidelines; and must address any contraventions of the conditions of this approval including requirements of the RMP; and must address whether outcomes and milestones required by these conditions have been met or are likely to be achieved.	Compliant	Annual Compliance Report 2018 was submitted to the Department on 16 April 2019 and posted on School's website (Appendix 4). Annual Compliance Reports for 2016, 2017, 2018 and 2019 were prepared in accordance with the Department's guidelines and address any contraventions of the conditions of the approval relevant to the Reporting Period.
9	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Not relevant to reporting period	The Minister has not made such a request during the Reporting Period.
10	The revised RMP must be published on the approval holder's website within 1 month of being approved by the Minister.	Not relevant to reporting period	No RMP revisions were made during the Reporting Period.
11	If the Minister believes that it is necessary or convenient for the better protection of listed threatened species to do so, the Minister may request that the person taking the action make specified revisions to the plan/s specified in the conditions and submit the revised plan/s for the Minister's written approval. The person taking the action must comply with any such request. The revised approved plan/s must be implemented. Unless the Minister has approved the revised plan/s, then the person taking the action must continue to implement the plan/s originally approved, as specified in the conditions.	Not relevant to reporting period	The Minister has not made such a request during the Reporting Period.

** Conditions 1, 4 and 5 of the original EPBC 2007/3333 approval did not change and are included in this table. Other conditions either changed, were revoked or added as detailed in EPBC 2007/3333 Variation to Conditions (December 2016).*

APPENDIX 2: COMPLIANCE ASSESSMENT - REHABILITATION MANAGEMENT PLAN REV2 (MARCH 2017)

Table A2: Compliance Assessment - Rehabilitation Management Plan Rev2 (March 2017)

RMP Section	Key Management Measures	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
6.2.3 Fencing	The remaining boundary fencing (north, east, south sides) will be maintained to prevent livestock access from neighbouring properties. Trials involving additional fencing will be considered for the highest mortality areas to reduce grazing impact of kangaroos	Compliant	Fence monitoring was undertaken and no issues with fences were identified (Appendices 5 and 6). No livestock access observed during the reporting period. A trial fenced enclosure in high mortality area was maintained and continued to exclude kangaroos (Appendices 5 and 6).
6.2.6 Weed Management	Two main control rounds per year (for winter and summer weeds respectively) unless site conditions indicate no benefit. Annual control of any Declared Pest species will also continue.	Compliant	Weed control was undertaken prior to plantings (June – July) and in September-October 2019 (Appendix 7). This covered Declared Pest species. Site conditions indicated that summer weed control was not necessary (Appendix 5). Evidence of effective weed control was low live weed cover recorded in rehabilitation monitoring (Appendices 5 and 6).
6.2.7 Planting	Plant 10,538 seedlings in 2017	Not relevant to reporting period	Relates to 2017 and has been previously reported on.
	Further infill planting will be undertaken in 2018 and subsequent years as necessary.	Compliant	Infill planting undertaken as per seedling invoice (Appendix 8) and rehabilitation monitoring (Appendices 5 and 6).
	Planting will be undertaken during the late autumn – winter period following commencement of substantial seasonal rainfall.	Compliant	Planting undertaken in July 2019 (Appendix 8 and Appendix 9) following late commencement of substantial winter rains.
	Seedlings will be planted with a slow release native fertiliser pill.	Compliant	As per invoice (Appendix10).
	Plastic corflute tree guards will be used to protect young seedlings.	Compliant	Photos in monitoring report (Appendix 5 and 6). Previous guards were re-used.
	In the areas of very poor success rates, trials of additional treatments (e.g. water crystals and mulching) will be considered.	Compliant	Trials were considered. Soil wetter and lime were applied in selected areas (Appendix 10).
	BCGS will consider undertaking student planting days at the site.	Compliant	Student planting day was considered, but not undertaken in 2019. Student planting day was undertaken on 29 June 2017 as reported previously.
6.2.9 Revegetation Species	Species for plantings will be chosen from list in Table 7 (of RMP Rev2).	Compliant	Monitoring results show that appropriate species were planted (Appendices 5 and 6).

RMP Section	Key Management Measures	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
7 Performance and Completion Criteria (Table 9 of RMP Rev2).	Completion criteria (environmental outcome by latest 30 June 2021) • At least 80% of the species listed in RMP Rev2 Table 7 for a particular Rehabilitation Area are present in that Rehabilitation Area. • Achieve a self-sustaining vegetation community that, in the longer term, will provide habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoo (*Calyptorhynchus baudinii* and *C. latirostris*). • The average live weed cover is <50%.	Compliant	• Rehabilitation monitoring reports (Appendices 5 and 6) indicate that at least 80% of listed species have been recorded in all Rehabilitation Areas consistently for several years. • The vegetation that has been established is considered self-sustaining as the vegetation is flowering and producing seed and there is evidence of natural regeneration (Appendices 5 and 6). The species present provide habitat suitable for the target fauna species. • The average live weed cover has remained <50% for several years (Appendices 5 and 6).
	Milestones (by 31 December 2017)	Partly non-compliant	The milestones are required to be maintained. Stem density milestone of 1,500 stems/ha was not maintained in the Western Rehabilitation Area over the 2018/2019 summer period, as noted in the autumn 2019 monitoring report (Appendix 5). However, the milestone was again achieved by spring 2019 in all rehabilitation areas (Appendix 6). All other milestones were maintained.
	Performance targets	Compliant	Only the weed control performance target was relevant for the reporting period and this was met. Weed control was undertaken prior to plantings (June – July) and in September-October 2019 (Appendix 7). Site conditions indicated that summer weed control was not necessary (Appendix 5). Effectiveness of weed control was shown in the monitoring results (Appendices 5 and 6).
8 Monitoring Program (Table 13 of RMP Rev2)	Photo monitoring	Compliant	Monitoring undertaken as per autumn and spring 2019 monitoring reports (Appendices 5 and 6).
	Fence monitoring	Compliant	
	Vegetation monitoring	Compliant	
9 Contingency Measures (Table 14 of RMP Rev2)	Contingency measures for fencing	Compliant	No contingency measures needed for fencing (Appendices 5 and 6).
	Contingency measures for vegetation	Compliant	Necessary contingency measures identified and implemented as per autumn and spring 2019 monitoring reports (Appendices 5 and 6).

RMP Section	Key Management Measures	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
10 Risk of Failure (Table 15 of RMP Rev2)	Contingency measures and monitoring (as per RMP Rev2 Section 8 and 9.	Compliant	As per comments for RMP Sections 8 and 9 above.
12 Incidents and Emergencies	Environmental incidents will be reported to the BCGS as soon as possible. Depending on the nature of the incident, the BCGS may inform the landowner (WAPC) and seek appropriate advice to mitigate the matter. Records will be kept of any environmental incidents and response measures. In case of any emergency, the first point of contact will be triple zero (call 000). BCGS should be informed of any emergency as soon as possible when safe to do so. BCGS will then inform the landowner (WAPC). Records will be kept of any emergencies and response measures.	Not relevant to reporting period	No incidents or emergencies occurred during the reporting period.
13 Record keeping	Accurate records will be maintained substantiating all activities associated with approval conditions and the implementation of the RMP Rev2.	Compliant	Records were inspected and utilised in preparation of this Annual Compliance Report 2019.

RMP Section	Key Management Measures	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
14 Reporting and Public Availability	The latest version of the RMP will be published on the website of BCGS within one month of being approved by the Minister.	Not relevant to reporting period	No RMP revisions undertaken during reporting period.
	Annual Compliance Reports (ACR) will be prepared in accordance with the Department's Annual Compliance Report Guidelines.	Compliant	Annual Compliance Reports for 2016, 2017, 2018 and 2019 were prepared in accordance with the Department's guidelines.
	The ACR is required to be published on BCGS website within three months of the end of the reporting period (17 April) each year and evidence of publication submitted to the Department.	Compliant	Annual Compliance Report 2018 was submitted to the Department on 16 April 2019 and posted on School's website (Appendix 4).
	The ACR will address any contraventions of the conditions of the EPBC approval including requirements of the RMP Rev2 and will detail whether outcomes and milestones required by these conditions have been met or are likely to be achieved.	Compliant	Annual Compliance Reports for 2016, 2017, 2018 and 2019 address any contraventions of the conditions of the approval relevant to the reporting period.
	Monitoring results will be summarised in a report twice yearly, with spring monitoring results reported by the end of December and autumn monitoring results by end of May. These reports will remain internal BCGS documents until included as evidence in the relevant ACR.	Compliant	Monitoring results for autumn and spring 2019 reported on time (Appendices 5 and 6).
	Approval EPBC 2007/3333 Variation 2016 requires that the Department will be notified within 14 days following failure to meet milestones detailed in Table 9. The achievement and maintenance of the milestones will be determined on the basis of the biannual monitoring rounds (spring and autumn). The spring monitoring results will be analysed and reported by the end of December and the Department notified by 14 January of any failure to meet the milestones. The autumn monitoring results will be analysed and reported by the end of May and the Department notified by 14 June of any failure to meet the milestones.	Compliant	The Department was notified of a failure to maintain one milestone following the autumn monitoring round. This was done via email on 10 June 2019 (Appendix 11) that contained the autumn 2019 monitoring report and a cover letter describing the issue and the proposed solution.
16 Auditing	Internal desktop audits of compliance with the latest version of the RMP and associated approval conditions will be undertaken in preparation of Annual Compliance Report annually.	Compliant	Desktop audit of compliance with RMP Rev2 (March 2017) has been undertaken by MBS Environmental during preparation of the Annual Compliance Report for 2019.

RMP Section	Key Management Measures	Compliance from 17/01/2019 to 16/01/2020	Evidence/Comments
17 Plan Review	RMP Rev2 will be reviewed on an annual basis during the preparation of the Annual Compliance Report.	Compliant	RMP Rev2 was reviewed by MBS Environmental during preparation of Annual Compliance Report for 2019. No changes are necessary.
	Specific instances that will trigger an immediate review of RMP Rev2 include: • Monitoring reports indicate milestones or performance targets may not be achieved. • Following a significant environmental incident (any incident that would kill or remove large portion of plants e.g. bushfire).	Compliant	One of the milestones (stem density) was not maintained in one rehabilitation area during one monitoring round and this was considered by MBS Environmental as part of preparing the monitoring reports and this Annual Compliance Report. No immediate changes were considered necessary at the time of autumn reporting and by spring reporting the milestone was achieved again. Consequently, no changes to the RMP Rev2 are proposed.
	If RMP review indicates changes to the plan are necessary, a revision of the RMP will be prepared and submitted to the Department to obtain the Minister's written approval of the revision. The Minister may also ask for a specific revision in which case a revised RMP will be prepared and submitted for approval. The varied activity shall not commence until the Minister has approved the revised plan in writing.	Not relevant to reporting period	No changes to the RMP were considered necessary.

APPENDIX 3: RMP REV2 APPROVAL LETTER

Australian Government
Department of the Environment and Energy

Ms Jennifer Nobbs
Bursar
Bunbury Cathedral Grammar School
PO BOX 1198
BUNBURY WA 6230

Bunbury Cathedral Grammar School, Gelorup, WA – Construction of New Sporting Field (EPBC 2007/3333)

Dear Ms Nobbs,

Thank you for your letter dated 20 March 2017 requesting approval of the *Rehabilitation Management Plan. Revision 2* (Plan) submitted in accordance with condition 2 of EPBC Act approval 2007/3333.

Officers of this Department have reviewed the Rehabilitation Management Plan and advised me on the requirements of condition 2 of the approval. As delegate of the Minister for the Environment and Energy, I have decided to approve the Plan in accordance with condition 2 of EPBC Act approval 2007/3333. The Plan must now be implemented.

In accordance with condition 10 of EPBC Act approval 2007/3333, the Plan must be published on your website within one month of approval and must remain on the website for the period in which the EPBC Act approval has effect. As you are aware, the Department has an active monitoring program which includes monitoring inspections, desk top document reviews and audits.

Should you require any further information, including whether to submit the revised Plan for approval, please contact Justin Williams, on (02) 6275 9492 or by email: postapproval@environment.gov.au.

Yours sincerely

Matthew Dutkiewicz
Acting Assistant Secretary
Compliance & Enforcement Branch
Environment Standards Division

29 March 2017

APPENDIX 4: SUBMISSION OF ACR 2018

From:	Jenny Nobbs
To:	EPBCMonitoring@environment.gov.au
Subject:	EPBC Compliance Report 2018 - 2007/3333 Bunbury Cathedral Grammar School
Date:	Tuesday, 16 April 2019 8:49:00 AM
Attachments:	EPBC Compliance Report 2018 - Final.pdf image001.png image002.png image003.png image004.png

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Good Morning,

Please find enclosed the EPBC Compliance Report 2018 – 2007/3333.

This report will shortly be posted on the School's website and a screen shot will be provided as proof.

Please direct any questions to me.

Mrs Jennifer Nobbs
Director of Business & Administration

Bunbury Cathedral Grammar School

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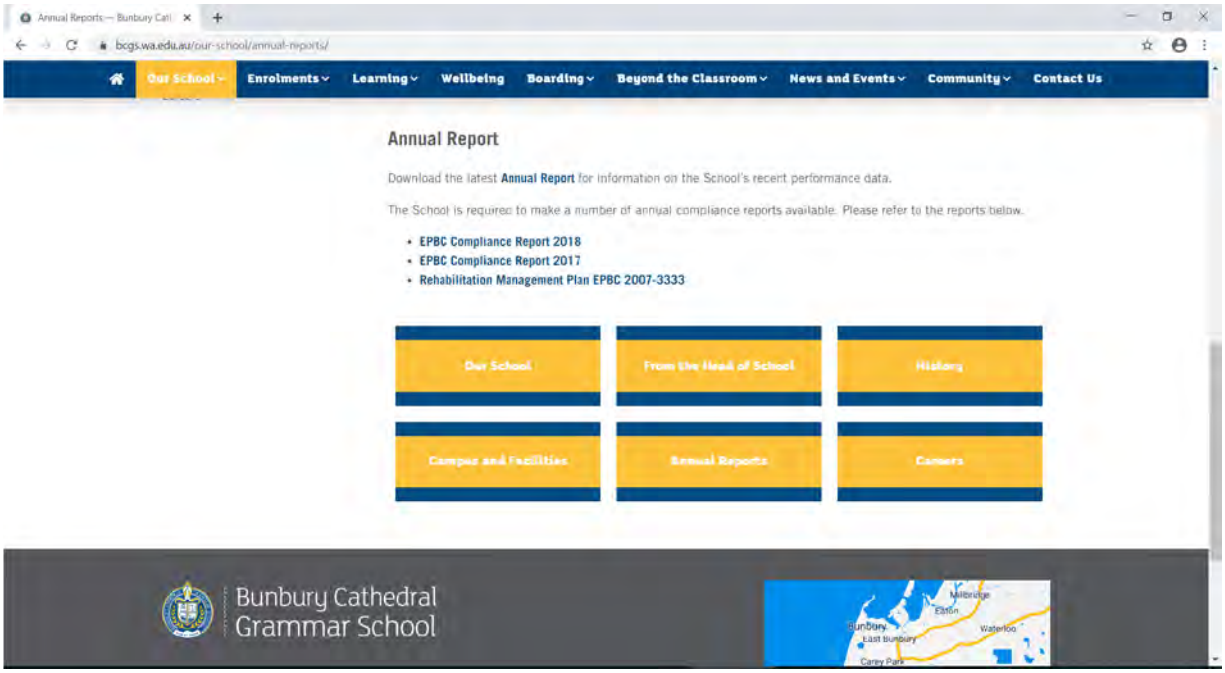
Annual Reports — Bunbury Cath
bcgs.wa.edu.au/our-school/annual-reports/
Our School
Enrolments
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Wellbeing
Boarding
Beyond the Classroom
News and Events
Community
Contact Us
Annual Report
Download the latest Annual Report for information on the School's recent performance data.
The School is required to make a number of annual compliance reports available. Please refer to the reports below.
EPBC Compliance Report 2018
EPBC Compliance Report 2017
Rehabilitation Management Plan EPBC 2007-3333
Our School
From the Head of School
History
Campus and Facilities
Annual Reports
Careers
Bunbury Cathedral Grammar School
Bunbury
East Bunbury
Waterloo
Carey Park

APPENDIX 5: REHABILITATION MONITORING AUTUMN 2019

REHABILITATION MONITORING REPORT
SPRING 2019

STRATHAM OFFSET REHABILITATION
(EPBC 2007/3333)

PREPARED FOR:

BUNBURY CATHEDRAL GRAMMAR SCHOOL
ABN: 36 007 093 540

DECEMBER 2019

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EPBC No 2007/3333
Rehabilitation Monitoring Spring 2019

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Final Report	Kirsi Kauhanen	Kristy Sell	31 December 2019

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FIGURES

PLATES

APPENDICES

1. INTRODUCTION

In accordance with approval EPBC 2007/3333 granted under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the associated Rehabilitation Management Plan (RMP Rev2, March 2017), Bunbury Cathedral Grammar School is undertaking an offset rehabilitation program on Lot 9 on Plan 43302 in Stratham (Figure 1). The rehabilitation is subject to biannual monitoring as detailed in RMP Rev2. This report summarises the results of monitoring undertaken in spring 2019.

Scale: 1:200000 Original Size: A4 Grid: MGA94(50) 0 5 km	Bunbury Cathedral Grammar School Rehabilitation Monitoring Spring 2019 Lot 9 Plan 43302 Stratham	**Figure 1** **Location Plan**	Martinick Bosch Sell Pty Ltd 4 Cook St West Perth WA 6005 Ph: (08) 9226 3166 Fax: (08) 9226 3177 info@mbsenvironmental.com.au www.mbsenvironmental.com.au MBS ENVIRONMENTAL

C:\Users\kkauhanen\Documents\Bunbury Grammar\Drawings\Monitoring reports\Spring 2019\F1 - Location Plan.map 9/12/2019 F1

2. METHODS

Monitoring was undertaken in November 2019 by Ms Kirsi Kauhanen (Senior Environmental Scientist) of MBS Environmental. The monitoring included photo monitoring, fence monitoring and vegetation monitoring and followed methods detailed in RMP Rev2.

Photo monitoring was undertaken at eight permanent locations (Table 1) that have been monitored since 2011.

Table 1: Photo Monitoring Point Locations

Photo Point ID	UTM GDA 94 (Zone 50)		Rehabilitation Area
	Easting	Northing	
ST1	369021	6298362	Western Area
ST2	369100	6298465	Western Area
ST3	369177	6298571	Western Area
ST4	369253	6298487	Sumpland
ST5	369308	6298487	Eastern Area
ST6	369259	6298417	Eastern Area
ST7	369179	6298399	Sumpland
ST8	369159	6298327	Eastern Area

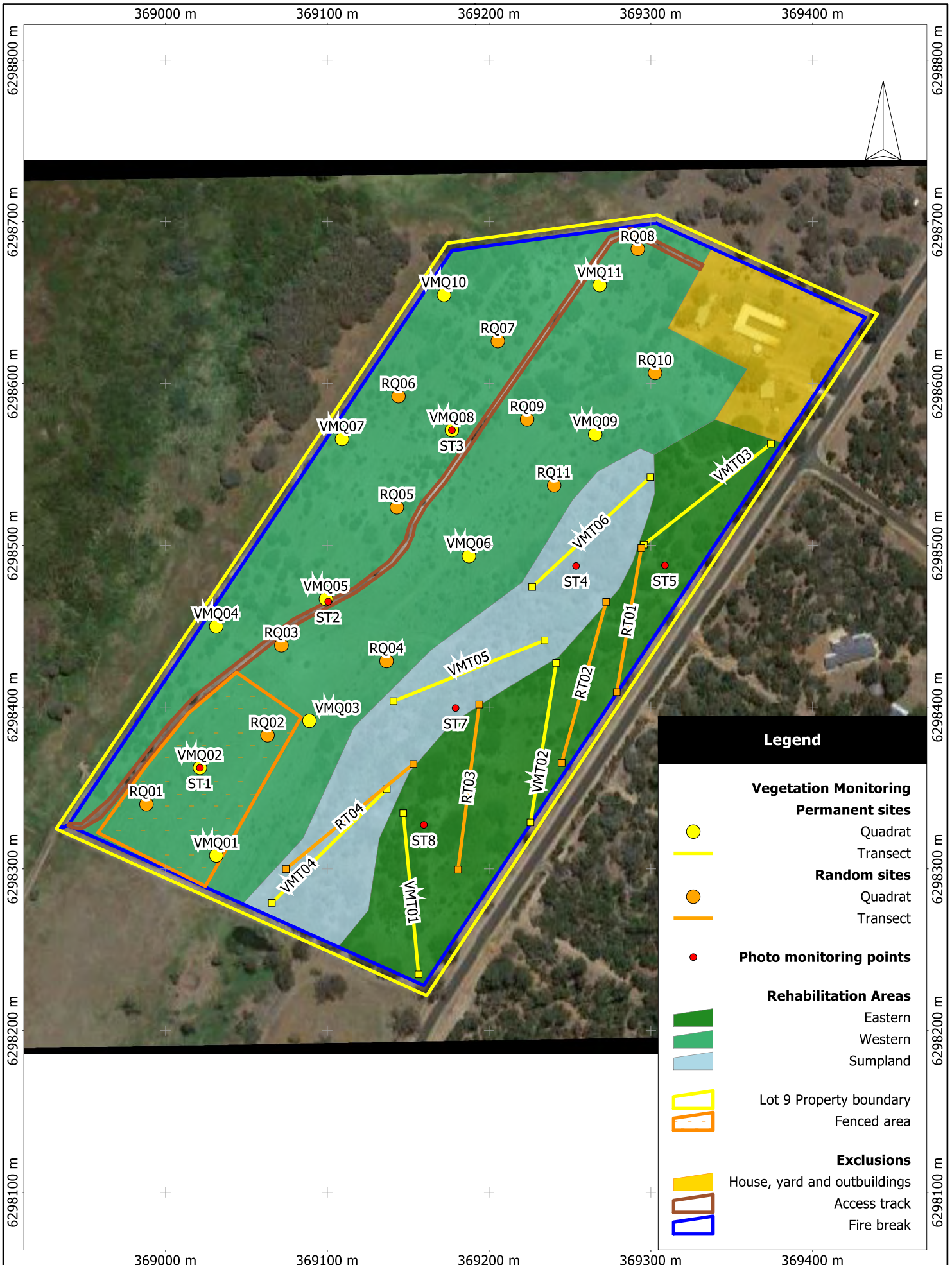
Fence monitoring comprised opportunistic visual inspection of fences and the rehabilitation areas for any signs of livestock access and was undertaken concurrently with vegetation monitoring.

Vegetation monitoring comprised surveying of 11 permanent and 11 random quadrats (each 10 m by 10 m) in the Western Area, three permanent and three random belt transects (2 m by 100 m) in the Eastern Area and three permanent and one random belt transects (2 m by 100 m) in the Sumpland. The locations of the quadrats and transects are shown in Figure 2. Opportunistic observations on vegetation were also made. Data collection and analysis is summarised in Table 2.

Table 2: Vegetation Monitoring Data Collection and Analysis

Item	Data Collection Method		
	Quadrats	Transects	Opportunistic
Data Collection	• Number of native plants (planted or naturally recruited). • Species of native plants (planted or naturally recruited). • Maximum height for each native species. • Native vegetation structure. • Species of weeds. • Estimated live % foliage cover of weeds. • Qualitative assessment of grazing impact. • Location coordinates and photograph.	• Number of native plants (planted or naturally recruited). • Species of native plants (planted or naturally recruited). • Maximum height for each native species. • Native vegetation structure (note any significant changes along transect). • Species of weeds. • Estimated live % foliage cover of weeds (average of estimates at 20m interval). • Qualitative assessment of grazing impact. • Start and end location coordinates and photograph.	• Native or weed species not observed in quadrats/transects.
Data Analysis	On the basis of the data collected, the following will be calculated/described for each Rehabilitation Area: • Native species composition. • Native vegetation structure. • Average native plant stem density per hectare, standard error of mean and relative standard error (SE/mean as %). • Weed species composition. • Average live weed % foliage cover, standard error of mean and relative standard error (SE/mean as %). • Grazing impact.		

The monitoring results were also assessed against trigger values specified in RMP Rev2 (Table 14), to determine whether contingency measures were necessary.



Scale: 1:3000
Original Size: A4
Air Photo Date: Google Earth 2017
Grid: MGA94(50)
0 100 m

Bunbury Cathedral Grammar School
Rehabilitation Monitoring
Spring 2019
Lot 9 on Plan 43302 Stratham

Figure 2

Vegetation Monitoring Spring 2019

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MBS ENVIRONMENTAL

3. RESULTS

3.1 PHOTO MONITORING

Plates 1 - 8 provide a selection of photos for each monitoring site, showing change from August 2011 to November 2019. Photo points ST4 and ST7 are located in the Sumpland Area and show little change as remnant vegetation dominates the view. Other photo points show gradual establishment of native vegetation in all areas.

3.2 FENCE MONITORING

Fence monitoring in November 2019 identified no issues requiring contingency measures. The Lot 9 boundary fence remained in place on three sides (north, east, south) and was sufficient to prevent access by livestock from adjacent grazing properties (north and south sides). The western boundary fence was removed in 2016 to incorporate the property into the Muddy Lakes Regional Open Space.

The fenced enclosure in the Western Area, shown in Figure 2, remained in good condition and continued to exclude kangaroos.

3.3 VEGETATION MONITORING

Photographs of each quadrat and transect surveyed in November 2019 are provided in Plates 9 - 11.

3.3.1 Native Species Composition

A summary of native species composition results is provided in Table 3 that relates the results to the species composition requirements set in RMP Rev2. Complete results on native species recorded in November 2019 are provided in Appendix 1.

Table 3: Native Species Composition

Scientific Name	Eastern		Western		Sumpland	
	Listed in RMP Rev2	Recorded in Nov 2019	Listed in RMP Rev2	Recorded in Nov 2019	Listed in RMP Rev2	Recorded in Nov 2019
Trees						
Agonis flexuosa	Yes	Yes	Yes	Yes	Yes	Yes
Banksia attenuata	Yes	Yes	No	(Yes)	No	(No)
Banksia grandis	Yes	Yes	No	(Yes)	No	(No)
Banksia littoralis	No	(No)	No	(No)	Yes	No
Corymbia calophylla	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus gomphocephala	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus marginata	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus rudis	Yes	Yes	Yes	Yes	Yes	Yes
Melaleuca preissiana	No	(No)	No	(Yes)	Yes	Yes
Melaleuca rhaphiophylla	No	(No)	No	(No)	Yes	Yes
Xylomelum occidentalis	Yes	Yes	No	(Yes)	No	(No)
Shrubs						
Acacia cyclops	Yes	Yes	Yes	Yes	Yes	Yes
Acacia saligna	Yes	Yes	Yes	Yes	Yes	Yes
Bossiaea eriocarpa	Yes	No	Yes	No	No	(No)
Hakea prostrata	Yes	Yes	Yes	Yes	No	(No)
Hibbertia cuneiformis	Yes	Yes	Yes	Yes	No	(Yes)
Jacksonia furcellata	Yes	Yes	Yes	Yes	No	(No)
Macrozamia riedlei	Yes	Yes	No	(No)	No	(No)
Olearia axillaris	No	(Yes)	No	(Yes)	No	(No)
Rhagodia baccata	Yes	Yes	Yes	Yes	Yes	Yes
Spyridium globulosum	Yes	Yes	Yes	Yes	Yes	Yes
Viminaria juncea	No	(No)	No	(No)	Yes	Yes
Herbs and Creepers						
Acacia pulchella	Yes	Yes	Yes	Yes	No	(No)
Conostylis aculeata	Yes	Yes	Yes	No	No	(No)
Hardenbergia comptoniana	Yes	No	Yes	No	No	(No)
Sedges and Rushes						
Lepidosperma gladiatum	No	(No)	No	(No)	Yes	Yes
Juncus pallidus	No	(No)	No	(No)	Yes	Yes
Total	20	18	16	13	12	11
% of species listed in RMP Rev2	90%		81%		92%	

Brackets for Yes and No are used to indicate that the species was not listed as likely suitable for that particular rehabilitation area in the RMP Rev2 and regardless of presence/absence, the species does not count towards the species composition milestones or outcomes for that particular area.

3.3.2 Native Vegetation Structure

Native vegetation structure in the rehabilitation areas during November 2019 was as per the following:

- Eastern Area:
  - Upper storey (up to 10 - 15 m): Few remnant mature *Agonis flexuosa* and *Eucalyptus gomphocephala*.
  - Middle storey (1 - 8 m): Rehabilitation comprising *Eucalyptus* spp. (*Eucalyptus gomphocephala, E. marginata, E. rudis, Corymbia calophylla*), *Agonis flexuosa*, *Acacia saligna* and *Jacksonia furcellata* with occasional *Acacia cyclops*.
  - Understorey (up to 1 m): Rehabilitation comprising *Hakea prostrata, Rhagodia baccata, Macrozamia riedlei, Conostylis aculeata, Spyridium globulosum, Acacia pulchella* and young individuals of *Acacia* spp., *Agonis flexuosa*, *Eucalyptus* spp., *Banksia* spp., and *Xylomelum occidentale*. Some *Pteridium esculentum* was also present. Groundcover was mainly introduced weed species.
- Western Area:
  - Upper storey (up to 10 m): Few remnant mature *Agonis flexuosa*.
  - Middle storey (1 - 8 m): Rehabilitation comprising *Eucalyptus* spp. (mainly *Eucalyptus gomphocephala* and *E. rudis,* but also *E. marginata* and *Corymbia calophylla*), *Agonis flexuosa, Acacia cyclops, Acacia saligna* and *Jacksonia furcellata*.
  - Understorey (up to 1 m): Rehabilitation comprising juvenile *Hakea prostrata, Rhagodia baccata, Spyridium globulosum, Acacia pulchella* and young individuals of *Acacia* spp., *Agonis flexuosa, Eucalyptus* spp., *Banksia* spp. and *Xylomelum occidentale*. Groundcover was mainly introduced weed species.
- Sumpland:
  - Upper storey (10 - 15 m): Remnant mature *Melaleuca rhaphiophylla* and *Eucalyptus rudis*.
  - Middle storey (1 - 8 m): Remnant *Viminea juncea* with rehabilitation comprising mainly juvenile *Eucalyptus rudis, Agonis flexuosa, Melaleuca rhaphiophylla, Viminea juncea* and *Acacia* spp.
  - Understorey (up to 1 m tall): Occasional remnant sedges and rushes with rehabilitation comprising *Juncus pallidus* and young individuals of *Melaleuca* spp., *Eucalyptus rudis, Agonis flexuosa, Viminea juncea* and *Acacia* spp. Groundcover was mainly introduced weed species.

Further details on height of native species in each quadrat/transect are provided in Appendix 2.

3.3.3 Native Plant Stem Density

A summary of native plant stem density from October 2012 to November 2019 is provided in Table 4. The reliability measure (SE/Mean) that was introduced in the RMP Rev2 was within target (<30%) for all rehabilitation areas in November 2019. Detailed results for each quadrat and transect surveyed in November 2019 are provided in Appendix 1.

Table 4: Native Plant Stem Density

Monitoring Occasion	Stems per Hectare											
	Eastern Area				Western Area				Sumpland			
	Mean	SE[1]	n[2]	SE/Mean[3]	Mean	SE	n	SE/Mean	Mean	SE	n	SE/Mean
Oct. 2012	1,500	204	4	-	320	193	5	-	2,300	-	1	-
March 2013	775	397	4	-	490	99	10	-	1,400	-	1	-
Nov. 2013	1,650	318	4	-	940	111	10	-	1,300	-	1	-
March 2014	740	258	5	-	600	99	13	-	950	250	2	-
Oct. 2014	975	119	8	-	953	84	15	-	1,700	200	2	-
March 2015	2,033	672	12	-	778	97	23	-	7,183	2,703	6	-
Oct. 2015	1,140	175	5	-	853	110	15	-	7,300	1,900	2	-
April 2016	1,410	544	10	-	594	69	18	-	3,340	1,447	5	-
Oct. 2016	1,619	695	8	-	503	85	18	-	2,767	1,271	3	-
May 2017[4]	1,158	245	6	21%	409	63	21	15%	2,163	468	4	22%
Oct/Nov 2017	1,536	129	7	8%	1,759	131	22	7%	2,038	464	4	23%
Mar/Apr 2018	1,275	189	6	15%	1,376	122	21	9%	2,063	377	4	18%
Nov 2018	1,633	183	6	11%	1,505	81	19	5%	1,938	360	4	19%
April 2019	1,517	163	6	11%	1,308	83	25	6%	2,013	339	4	17%
Nov 2019	1,775	180	6	10%	1,523	105.3	22	7%	1,825	371	4	20%

[1] SE = standard error *[2] n = number of quadrats/transects* *[3] '-' = not applicable*

[4] Change in methods from May 2017 onwards in Eastern Area and Sumpland.

3.3.4 Weeds

The most common weed species recorded in all three rehabilitation areas were *Cynodon dactylon* (couch grass) and various pasture grasses. Other relatively common species included *Trachyandra divaricata* and *Lupinus sp*. A few individuals of Declared Pest species *Zantedeschia aethiopica* (DP) and *Gomphocarpus fruticosus* (DP) were also recorded.

Live percentage weed cover for each rehabilitation area in November 2019 is presented in Table 5. The reliability measure (SE/Mean), that was introduced in RMP Rev2, was within target (<30%) for all rehabilitation areas. Complete results on weed species recorded in November 2019 are provided in Appendix 3.

Table 5: Live Percentage Weed Cover

Monitoring Occasion	Live Weed % Cover											
	Eastern				Western				Sumpland			
	Mean	SE	n^2	SE/Mean	Mean	SE	n^2	SE/Mean	Mean	SE	n^2	SE/Mean
May 2017	7.88	0.85	6	11%	16.05	2.35	21	15%	25.53	7.36	4	29%
Oct/Nov 2017	19.69	3.82	7	19%	21.23	3.19	22	15%	44.88	1.43	4	3%
Mar/Apr 2018	2.17	0.73	6	29%	10.71	1.86	21	17%	26.00	2.27	4	9%
Nov 2018	5.68	1.63	6	29%	9.42	1.48	19	16%	23.63	2.64	4	11%
April 2019	3.65	0.55	6	15%	9.32	2.16	25	23%	13.63	1.45	4	11%
Nov 2019	6.28	1.08	6	17%	10.91	1.97	22	18%	20.80	5.60	4	27%

3.3.5 Grazing Impact

Evidence of kangaroos and rabbits (scats, tracks, foot prints and diggings) was recorded across all rehabilitation areas in November 2019, apart from the fenced compound, in which there was no evidence of kangaroos. While tree guards were protecting the youngest planted seedlings from grazing by kangaroos and rabbits, grazing was having a significant impact on overall plant survival outside the fenced compound. Snail grazing was also observed across the site and appeared to directly contribute to mortality of some young seedlings within tree guards.

3.4 ASSESSMENT AGAINST TRIGGER VALUES

An assessment of monitoring results against trigger values specified in RMP Rev2 is presented in Table 6. Photo monitoring was undertaken to maintain a visual record of revegetation progress, however photo monitoring is not linked to any trigger values or contingency measures.

Table 6: Assessment Against Management Trigger Values

Parameter	Performance Indicator	Trigger Value (RMP Rev2)	Assessment	Contingency Measures
Fencing	Fence condition	Fence condition does not prevent livestock access	Not triggered	None necessary
	Signs of livestock access	Signs of livestock access	Not triggered	None necessary
Vegetation	Native species composition	Less than 85% of target flora species for a Rehabilitation Area present in that area (target species listed in Table 7 of RMP Rev2)	Triggered for Western Area (Western = 81%, however above the completion criteria of 80%).	Undertake infill planting during winter 2020 to increase species diversity in accordance with RMP Rev2.
	Native plant density	In 2017 and 2018: • Less than 1,650 stems per hectare on average in Eastern and Western Areas • Less than 420 stems per hectare on average in Sumpland	Not relevant to reporting period.	Not applicable
	Weed species composition	Presence of Declared Pest species	Triggered for all rehabilitation areas	Continue targeted weed control of the Declared Pest species in accordance with RMP Rev2.
	Live weed % foliage cover	In 2017 and 2018: • Average live weed % foliage cover 40% or higher	Not relevant to reporting period.	Not applicable

4. ASSESSMENT AGAINST MILESTONES AND PERFORMANCE TARGETS

An assessment of monitoring results against milestones and performance targets specified in RMP Rev2 is presented in Table 7.

All milestones and relevant performance targets were achieved in all rehabilitation areas in November 2019.

Table 7: Assessment Against RMP Rev2 Milestones and Performance Targets

Completion Criteria - Environmental Outcome Latest by 30 June 2021	Milestone[1]	Assessment Against Milestone	Performance Target	Assessment Against Performance Target
At least 80% of the species listed in RMP Rev2 Table 7 for a particular Rehabilitation Area are present in that Rehabilitation Area[2]	By 31 December 2017, achieve and maintain at least 80% of the species listed in RMP Rev2 Table 7 for a particular rehabilitation area[2]	Milestone of 80% target species achieved in all rehabilitation areas as shown in Table 3.	None applicable (2017 targets addressed in previous monitoring reports).	Not applicable
Achieve a self-sustaining vegetation community that, in the longer term, will provide habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoo (*Calyptorhynchus baudinii* and *C. latirostris*)	By 31 December 2017, achieve and maintain on average at least 1,500 stems per hectare in the Western and Eastern Areas[2] By 31 December 2017, achieve and maintain on average at least 380 stems per hectare in the Sumpland[2]	Eastern Area: Milestone of 1,500 stems per hectare achieved by end of 2017, achieved again in November 2018 and maintained to November 2019. Western Area: Milestone of 1,500 stems per hectare achieved by end of 2017, in November 2018 and again in November 2019. Sumpland: Milestone of 380 stems per hectare achieved prior to 2017 and since maintained. For further information see Table 4.	None applicable (2017 targets addressed in previous monitoring reports).	
The average live weed cover is <50%	By 31 December 2017, achieve and maintain the average live weed cover of <50%	Milestone of <50% live weed cover achieved in all rehabilitation areas as shown in Table 5.	Undertake weed control biannually	Performance target met. Spraying undertaken for summer and winter weeds.

1 These milestones will be assessed on the basis of rehabilitation monitoring scheduled for October 2017 and subsequently every spring and autumn (see RMP Rev2 Section 8).

2 Including planted seedlings and native regrowth.

5. DISCUSSION AND CONCLUSION

All milestones and relevant performance targets set in RMP Rev2 were achieved in all rehabilitation areas in November 2019 and consequently no reporting to the Commonwealth Department of the Environment and Energy (DoEE) is required at this stage.

Assessment against management trigger values indicated that contingency measures were required to address species composition in the Western Area. The management trigger values are for operational purposes only and provide a safety margin against potential future compliance issues. The management trigger values will not be taken into consideration in determining whether the final completion criteria have been met.

The Sumpland area continues to consistently meet the final completion criteria and it is recommended that communication with DoEE is commenced to relinquish any further rehabilitation obligation in regard to this area.

PLATES

PLATE 1: VIEW NORTHEAST FROM ST1 – WESTERN REHABILITATION AREA

Plate 1: View Northeast from ST1 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

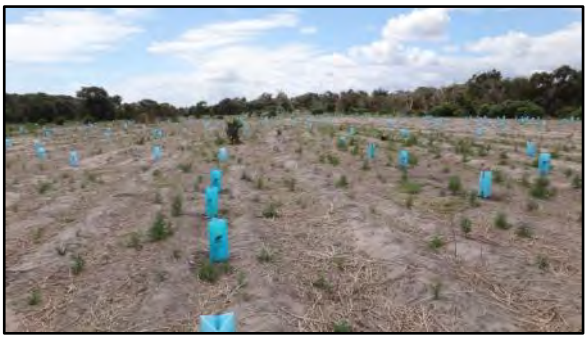
November 2013

March 2014

October 2014

March 2015

October 2015



April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 2: VIEW NORTHEAST FROM ST2 – WESTERN REHABILITATION AREA

Plate 2: View Northeast from ST2 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 3: VIEW NORTHEAST FROM ST3 – WESTERN REHABILITATION AREA

Plate 3: View Northeast from ST3 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

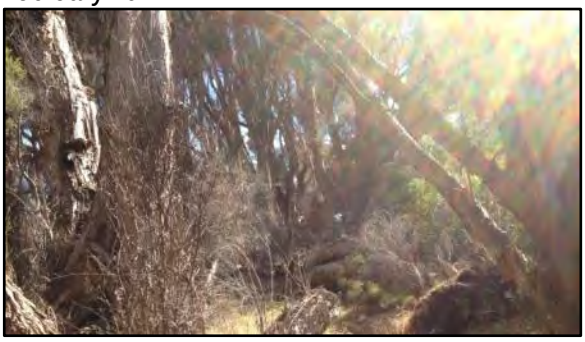
November 2019

PLATE 4: VIEW NORTHEAST FROM ST4 – SUMPLAND AREA

Plate 4: View Northeast from ST4 - Sumpland Area

August 2011

February 2012



July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 5: VIEW NORTHEAST FROM ST5 – EASTERN REHABILITATION AREA

Plate 5: View Southwest from ST5 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 6: VIEW NORTHEAST FROM ST6 – EASTERN REHABILITATION AREA

Plate 6: View Southwest from ST6 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

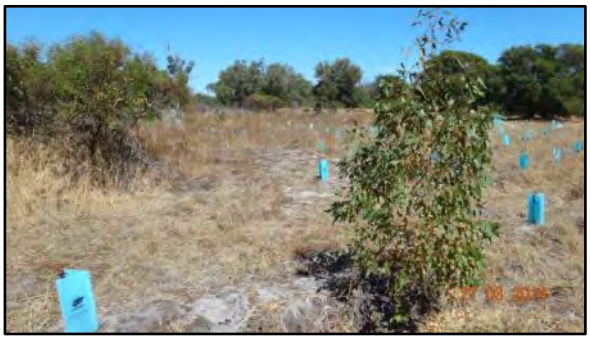
October 2012

March 2013

No data (incorrect view)

November 2013

March 2014



October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 7: VIEW NORTHEAST FROM ST7 – SUMPLAND AREA

Plate 7: View Southwest from ST7 - Sumpland Area

August 2011

February 2012

No data (incorrect view)

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 8: VIEW NORTHEAST FROM ST8 – EASTERN REHABILITATION AREA

Plate 8: View Southwest from ST8 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

November 2019

PLATE 9: EASTERN AREA

Plate 9: Eastern Area

VMT01 - Start

VMT02 - Start

VMT03 - Start

TR01 - Start

TR02 - Start

TR03 - Start

VMT01 - End

VMT02 - End

VMT03 - End

TR01 - End

TR02 - End

TR03 - End

PLATE 10: WESTERN AREA

Plate 10: Western Area

VMQ01

VMQ02

VMQ03

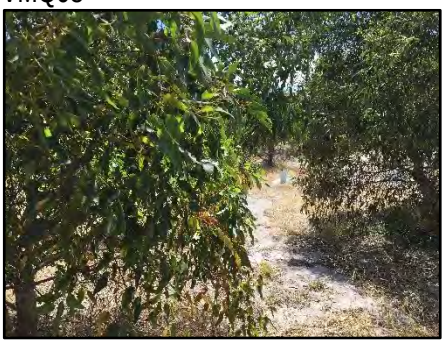
VMQ04

VMQ05

VMQ06

VMQ07

VMQ08



VMQ09

VMQ10

VMQ11

RQ01

RQ02

RQ03

RQ04

RQ05

RQ06

RQ07

RQ08

RQ09

RQ10

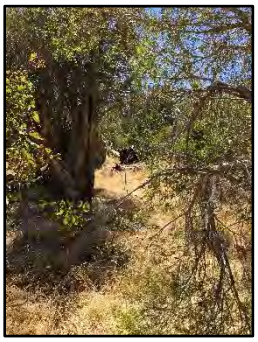
RQ11

PLATE 11: SUMPLAND

Plate 11: Sumpland

VMT04 - Start

VMT05 - Start



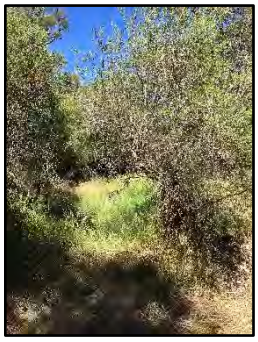
VMT06 - Start

TR04 - Start

VMT04 - End

VMT05 - End

VMT06 - End



TR04 - End

APPENDICES

APPENDIX 1: NATIVE SPECIES RECORDED

Table A1.1: Native Species Recorded in November 2019 - Eastern Area

Species	Number of Individuals per Transect (2 by 100 m)						Obs.*
	VMT01	VMT02	VMT03	TR01	TR02	TR03	
Acacia cyclops	2	3	4	4	2	0	Y
Acacia pulchella	0	0	0	0	0	0	Y
Acacia saligna	1	6	7	8	6	3	Y
Agonis flexuosa	19	7	6	6	12	34	Y
Banksia attenuata	0	0	0	0	0	0	Y
Banksia grandis	0	0	0	0	0	0	Y
Bossiaea eriocarpa	0	0	0	0	0	0	N
Conostylis acuelata	0	0	0	0	0	1	Y
Corymbia calophylla	0	1	1	0	0	0	Y
Eucalyptus gomphocephala	11	8	4	4	5	3	Y
Eucalyptus marginata	0	3	0	0	0	1	Y
Eucalyptus rudis	4	2	2	1	0	2	Y
Hakea prostrata	7	1	6	0	4	5	Y
Hardenbergia comptoniana	0	0	0	0	0	0	N
Hibbertia cuneiformis	0	0	0	0	0	0	Y
Jacksonia furcellata	0	0	0	0	0	0	Y
Macrozamia riedlei	0	0	0	0	0	0	Y
Rhagodia baccata	0	0	1	1	0	0	Y
Spyridium globulosum	0	1	0	3	1	0	Y
Xylomelum occidentalis	0	0	0	0	0	0	Y
Total per 200 m^2 transect	44	32	31	27	30	49	

**Obs. = Opportunistic observation within the Eastern Area.* *Y = Yes, observed.* *N = No, not observed.*

Table A1.2: Native Species Recorded in November 2019 - Western Area

Species	Number of Individuals per Quadrat (10 by 10 m)																					Obs
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11	
Acacia cyclops	1	0	3	1	2	2	0	2	2	3	3	0	2	4	1	2	2	0	5	5	7	3	Y
Acacia pulchella	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Acacia saligna	0	0	0	2	0	2	3	5	2	1	4	0	2	1	3	2	2	0	8	4	5	1	Y
Agonis flexuosa	2	3	2	2	1	1	2	2	0	10	7	5	1	8	2	2	3	4	2	5	2	1	Y
Banksia attenuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Banksia grandis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Bossiaea eriocarpa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Conostylis acuelata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Corymbia calophylla	0	0	0	0	2	0	0	0	0	2	0	0	0	2	2	0	0	2	0	1	0	0	Y
Eucalyptus gomphocephala	1	6	2	2	7	0	7	4	1	6	7	9	1	0	0	5	5	6	1	5	2	1	Y
Eucalyptus marginata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Eucalyptus rudis	0	0	4	0	2	4	0	0	3	1	0	0	0	0	4	2	2	0	0	0	0	5	Y
Hakea prostrata	2	0	0	0	0	1	0	0	0	0	3	1	0	1	2	1	1	1	3	2	0	0	Y
Hardenbergia comptoniana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Hibbertia cuneiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Jacksonia furcellata	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	Y
Melaleuca preissiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Rhagodia baccata	0	0	0	5	0	0	2	0	0	1	0	0	2	2	0	0	1	3	0	0	0	1	Y
Spyridium globulosum	0	0	0	0	0	0	0	0	6	0	0	0	0	0	1	0	1	2	2	1	2	0	Y
Xylomelum occidentalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Total per 100m^2	6	10	11	13	14	12	14	13	14	25	24	15	8	18	15	14	17	18	21	23	18	12	

**Obs. = Opportunistic observation within the Western Area.* *Y = Yes, observed.* *N = No, not observed.*

Table A1.3: Native Species Recorded in November 2019 - Sumpland

Species	Number of Individuals per Transect (2 by 100 m)				Obs.*
	VMT04	VMT05	VMT06	TR04	
Acacia cyclops	0	0	0	0	Y
Acacia saligna	5	0	0	2	Y
Agonis flexuosa	1	6	6	5	Y
Banksia littoralis	0	0	0	0	N
Eucalyptus rudis	16	12	38	8	Y
Juncus pallidus	1	0	5	1	Y
Lepidosperma gladiatum	0	1	0	0	Y
Melaleuca preissiana	0	0	0	0	Y
Melaleuca rhaphiophylla	11	3	2	3	Y
Rhagodia baccata	2	1	1	2	Y
Spyridium globulosum	0	1	0	0	Y
Viminaria juncea	1	5	5	2	Y
Total per 200m^2 transect	37	29	57	23	

**Obs. = Opportunistic observation within the Sumpland. Y = Yes, observed. N = No, not observed.*

APPENDIX 2: NATIVE SPECIES HEIGHTS

Table A2.1: Native Species Heights Recorded in November 2019 - Eastern Area

Species	Plant Height (up to m)					
	VMT01	VMT02	VMT03	TR01	TR02	TR03
Acacia cyclops	1.2	0.3	0.3	0.7	0.5	0
Acacia pulchella	0	0	0	0	0	0
Acacia saligna	0.5	1.2	3	2.5	1	1
Agonis flexuosa	6	4	4.5	5	5	3.5
Banksia attenuata	0	0	0	0	0	0
Banksia grandis	0	0	0	0	0	0
Bossiaea eriocarpa	0	0	0	0	0	0
Conostylis acuelata	0	0	0	0	0	0
Corymbia calophylla	0	1.2	1	0	0	0
Eucalyptus gomphocephala	8	8	8	6	7	3.5
Eucalyptus marginata	0	2.5	0	0	0	3.5
Eucalyptus rudis	8	5	6	6	0	4
Hakea prostrata	0.5	1	0.6	0	1	0.3
Hardenbergia comptoniana	0	0	0	0	0	0
Hibbertia cuneiformis	0	0	0	0	0	0
Jacksonia furcellata	0	0	0	0	0	0
Macrozamia riedlei	0	0	0	0	0	0
Rhagodia baccata	0	0	0.8	0.5	0	0
Spyridium globulosum	0	0.5	0	0.3	0.4	0
Xylomelum occidentalis	0	0	0	0	0	0

0 = Species Not recorded.

Table A2.2: Native Species Heights Recorded in November 2019 - Western Area

Species	Plant Height (up to m)																					
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11
Acacia cyclops	0.3	0	0.3	0.4	2	0.7	0	0.3	0.4	0.3	0.3	0	0.8	0.5	0.4	2.5	0.3	0	0.4	0.4	0.3	0.3
Acacia pulchella	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Acacia saligna	0	0	0	0.6	0	2	0.4	0.4	0.6	2.5	1	0	2	0.5	2	0.3	4	0	0.6	0.7	2	0.3
Agonis flexuosa	1.2	1.2	0.8	5	1.5	1.2	0.7	0.5	0	3.5	2	1.2	2.5	3	2.5	2.5	4	1	0.5	2	0.3	0.3
Banksia attenuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Banksia grandis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bossiaea eriocarpa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conostylis acuelata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corymbia calophylla	0	0	0	0	2	0	0	0	0	1.2	0	0	0	0.3	0.3	0	0	0.3	0	0.3	0	0
Eucalyptus gomphocephala	2	2.5	3	7	8	0	7.5	8	3	8	5	2.3	1.7	0	0	5	7	9	2	2	2.5	1.7
Eucalyptus marginata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eucalyptus rudis	0	0	2	0	1.7	3	0	0	3.5	1.2	0	0	0	0	2.5	2	1.7	0	0	0	0	6
Hakea prostrata	0.8	0	0	0	0	0.3	0	0	0	0	3	1	0	2	0.3	0.2	0.2	0.3	0.4	0.3	0	0
Hardenbergia comptoniana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hibbertia cuneiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jacksonia furcellata	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Melaleuca preissiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhagodia baccata	0	0	0	0.4	0	0	0.3	0	0	0.2	0	0	0.3	0.3	0	0	0.4	0.3	0	0	0	0.2
Spyridium globulosum	0	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0.4	0	0.3	0.4	0.3	0.3	0.4	0
Xylomelum occidentalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = Species Not recorded.

Table A2.3: Native Species Heights Recorded in November 2019 - Sumpland

Species	Plant Height (up to m)			
	VMT04	VMT05	VMT06	TR04
Acacia cyclops	0	0	0	0
Acacia saligna	3	0	0	0.5
Agonis flexuosa	3.5	3.5	5	2
Banksia littoralis	0	0	0	0
Eucalyptus rudis	5.5	3	8	2.5
Juncus pallidus	1.5	0	2	0
Lepidosperma gladiatum	0	0.5	0	0
Melaleuca preissiana	0	0	0	0
Melaleuca rhaphiophylla	2	1.8	2	3
Rhagodia baccata	0.3	0.2	0	0.2
Spyridium globulosum	0	0.5	0	0
Viminaria juncea	0.3	3	3	0.5

0 = Species Not recorded.

APPENDIX 3: WEED SPECIES AND LIVE % COVER

Table A3.1: Weed Species and Live % Cover Recorded in November 2019 - Eastern Area

Species	Weed Species Present and Live % Cover					
	VMT01	VMT02	VMT03	TR01	TR02	TR03
Arctotheca calendula	p	p	p	p	a	p
Crassula sp.	a	p	p	p	a	p
Cynodon dactylon	p	p	p	p	p	p
Erodium sp.	a	p	p	a	a	p
Hypochaeris sp.	a	a	p	a	a	a
Lupinus sp.	p	p	p	p	p	p
Oenothera mollissima	p	p	a	p	a	p
Trachyandra divaricata	a	a	a	a	a	a
Wahlenbergia capensis	a	a	a	a	a	a
Other grasses	p	p	p	p	p	p
Live % Cover	4	6	6	12	5	5

p = present *a= absent*

Table A3.2: Weed Species and Live % Cover Recorded in November 2019 - Western Area

Species	Weed Species Present and Live % Cover																					
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11
Arctotheca calendula	a	a	p	p	a	a	a	a	a	a	p	a	a	a	a	a	a	a	a	a	a	a
Conyza sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Crassula sp..	p	a	a	p	a	a	a	p	a	a	p	a	a	a	a	a	a	a	a	a	a	a
Cucumis myriocarpus	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Cynodon dactylon	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
Erodium sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Gomphocarpus fruticosus (DP)	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Lupinus sp.	p	p	p	p	p	p	p	p	p	p	p	p	p	p	a	a	p	p	p	a	p	a
Malva parviflora	a	a	a	p	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Oenothera mollissima	p	p	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	p	a	a
Oxalis sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Solanum nigrum	a	a	a	p	p	a	p	a	a	a	a	a	a	a	a	a	a	p	a	a	a	a
Sonchus sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Trachyandra divaricata	p	p	p	p	a	a	p	p	a	a	a	p	p	a	a	a	a	a	a	a	a	p
Verbascum virgatum	a	p	a	a	a	a	a	a	a	a	a	p	a	a	a	a	a	a	a	a	a	a
Other grasses	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
Live % Cover	15	20	10	5	15	2	10	5	2	5	2	30	15	35	15	15	5	5	2	20	2	5

p = present a= absent

Table A3.3: Weed Species and Live % Cover Recorded in November 2019 - Sumpland

Species	Weed Species Present and Live % Cover			
	VMT04	VMT05	VMT06	TR04
Atriplex prostrata	p	p	a	p
Cynodon dactylon	p	p	p	p
Oxalis sp.	a	a	a	a
Solanum nigrum	p	p	p	p
Sonchus sp.	p	p	a	a
Zantedeschia aethiopica (DP)	a	p	a	a
Other grasses	p	p	p	p
Live % Cover	18	10	36	20

p = present *a= absent*

APPENDIX 6: REHABILITATION MONITORING SPRING 2019

REHABILITATION MONITORING REPORT
AUTUMN 2019

STRATHAM OFFSET REHABILITATION
(EPBC 2007/3333)

PREPARED FOR:

BUNBURY CATHEDRAL GRAMMAR SCHOOL
ABN: 36 007 093 540

MAY 2019

PREPARED BY:

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EPBC No 2007/3333
Rehabilitation Monitoring Autumn 2019

Distribution List:

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Draft Report	Kirsi Kauhanen	Kristy Sell	30 May 2019
Final Report	Kirsi Kauhanen	Kristy Sell	30 May 2019

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1. INTRODUCTION

In accordance with approval EPBC 2007/3333 granted under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the associated Rehabilitation Management Plan (RMP Rev2, March 2017), Bunbury Cathedral Grammar School is undertaking an offset rehabilitation program on Lot 9 on Plan 43302 in Stratham (Figure 1). The rehabilitation is subject to biannual monitoring as detailed in RMP Rev2. This report summarises the results of monitoring undertaken in autumn 2019.

Scale: 1:200000
Original Size: A4
Grid: MGA94(50)

0 5 km

Bunbury Cathedral Grammar School
Rehabilitation Monitoring
Autumn 2019
Lot 9 Plan 43302 Stratham

Figure 1

Location Plan

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C:\Users\kkauhanen\Documents\Bunbury Grammar\Drawings\Monitoring reports\Autumn 2019\F1 - Location Plan.map 29/05/2019 F1

2. METHODS

Monitoring was undertaken in April 2019 by Ms Kirsi Kauhanen (Senior Environmental Scientist) of MBS Environmental. The monitoring included photo monitoring, fence monitoring and vegetation monitoring and followed methods detailed in RMP Rev2.

Photo monitoring was undertaken at eight permanent locations (Table 1) that have been monitored since 2011.

Table 1: Photo Monitoring Point Locations

Photo Point ID	UTM GDA 94 (Zone 50)		Rehabilitation Area
	Easting	Northing	
ST1	369021	6298362	Western Area
ST2	369100	6298465	Western Area
ST3	369177	6298571	Western Area
ST4	369253	6298487	Sumpland
ST5	369308	6298487	Eastern Area
ST6	369259	6298417	Eastern Area
ST7	369179	6298399	Sumpland
ST8	369159	6298327	Eastern Area

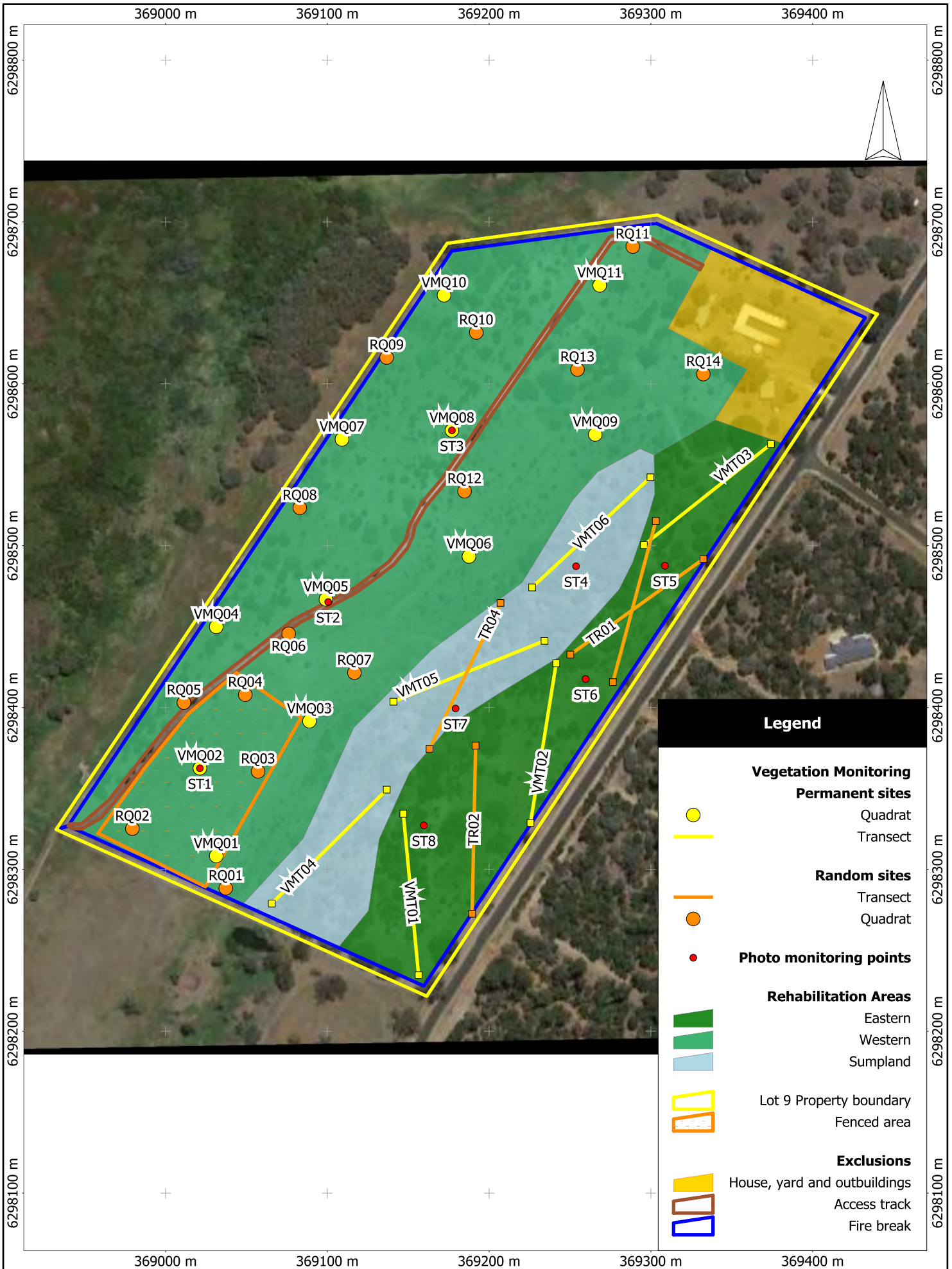
Fence monitoring comprised opportunistic visual inspection of fences and the rehabilitation areas for any signs of livestock access and was undertaken concurrently with vegetation monitoring.

Vegetation monitoring comprised surveying of 11 permanent and 14 random quadrats (each 10 m by 10 m) in the Western Area, three permanent and three random belt transects (2 m by 100 m) in the Eastern Area and three permanent and one random belt transects (2 m by 100 m) in the Sumpland. The locations of the quadrats and transects are shown in Figure 2. Opportunistic observations on vegetation were also made. Data collection and analysis is summarised in Table 2.

Table 2: Vegetation Monitoring Data Collection and Analysis

Item	Data Collection Method		
	Quadrats	Transects	Opportunistic
Data Collection	• Number of native plants (planted or naturally recruited). • Species of native plants (planted or naturally recruited). • Maximum height for each native species. • Native vegetation structure. • Species of weeds. • Estimated live % foliage cover of weeds. • Qualitative assessment of grazing impact. • Location coordinates and photograph.	• Number of native plants (planted or naturally recruited). • Species of native plants (planted or naturally recruited). • Maximum height for each native species. • Native vegetation structure (note any significant changes along transect). • Species of weeds. • Estimated live % foliage cover of weeds (average of estimates at 20m interval). • Qualitative assessment of grazing impact. • Start and end location coordinates and photograph.	• Native or weed species not observed in quadrats/transects.
Data Analysis	On the basis of the data collected, the following will be calculated/described for each Rehabilitation Area: • Native species composition. • Native vegetation structure. • Average native plant stem density per hectare, standard error of mean and relative standard error (SE/mean as %). • Weed species composition. • Average live weed % foliage cover, standard error of mean and relative standard error (SE/mean as %). • Grazing impact.		

The monitoring results were also assessed against trigger values specified in RMP Rev2 (Table 14), to determine whether contingency measures were necessary.



Scale: 1:3000
Original Size: A4
Air Photo Date: Google Earth 2017
Grid: MGA94(50)
0 100 m

Bunbury Cathedral Grammar School
Rehabilitation Monitoring
Autumn 2019
Lot 9 on Plan 43302 Stratham

Figure 2

Vegetation Monitoring Autumn 2019

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C:\Users\kkauhanen\Documents\Bunbury Grammar\Drawings\Monitoring reports\Autumn 2019\Figures.map 29/05/2019 F2

3. RESULTS

3.1 PHOTO MONITORING

Plates 1 - 8 provide a selection of photos for each monitoring site, showing change from August 2011 to April 2019. Photo points ST4 and ST7 are located in the Sumpland Area and show little change as remnant vegetation dominates the view. Other photo points show gradual establishment of native vegetation in all areas.

3.2 FENCE MONITORING

Fence monitoring in April 2019 identified no issues requiring contingency measures. Lot 9 boundary fence remained in place on three sides (north, east, south) and was sufficient to prevent access by livestock from adjacent grazing properties (north and south sides). The western boundary fence was removed in 2016 to incorporate the property into the Muddy Lakes Regional Open Space.

The fenced enclosure in the Western Area, shown in Figure 2, remained in good condition and continued to exclude kangaroos.

3.3 VEGETATION MONITORING

Photographs of each quadrat and transect surveyed in April 2019 are provided in Plates 9 - 11.

3.3.1 Native Species Composition

A summary of native species composition results is provided in Table 3 that relates the results to the species composition requirements set in RMP Rev2. Complete results on native species recorded in April 2019 are provided in Appendix 1.

Table 3: Native Species Composition

Scientific Name	Eastern		Western		Sumpland	
	Listed in RMP Rev2	Recorded in Apr 2019	Listed in RMP Rev2	Recorded in Apr 2019	Listed in RMP Rev2	Recorded in Apr 2019
Trees						
Agonis flexuosa	Yes	Yes	Yes	Yes	Yes	Yes
Banksia attenuata	Yes	Yes	No	(Yes)	No	(No)
Banksia grandis	Yes	Yes	No	(Yes)	No	(No)
Banksia littoralis	No	(No)	No	(No)	Yes	No
Corymbia calophylla	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus gomphocephala	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus marginata	Yes	Yes	Yes	Yes	No	(No)
Eucalyptus rudis	Yes	Yes	Yes	Yes	Yes	Yes
Melaleuca preissiana	No	(No)	No	(Yes)	Yes	Yes
Melaleuca rhaphiophylla	No	(No)	No	(No)	Yes	Yes
Xylomelum occidentalis	Yes	Yes	No	(Yes)	No	(No)
Shrubs						
Acacia cyclops	Yes	Yes	Yes	Yes	Yes	Yes
Acacia saligna	Yes	Yes	Yes	Yes	Yes	Yes
Bossiaea eriocarpa	Yes	No	Yes	No	No	(No)
Hakea prostrata	Yes	Yes	Yes	Yes	No	(No)
Hibbertia cuneiformis	Yes	Yes	Yes	Yes	No	(Yes)
Jacksonia furcellata	Yes	Yes	Yes	Yes	No	(No)
Macrozamia riedlei	Yes	Yes	No	(No)	No	(No)
Rhagodia baccata	Yes	Yes	Yes	Yes	Yes	Yes
Spyridium globulosum	Yes	Yes	Yes	Yes	Yes	Yes
Viminaria juncea	No	(No)	No	(No)	Yes	Yes
Herbs and Creepers						
Acacia pulchella	Yes	Yes	Yes	Yes	No	(No)
Conostylis aculeata	Yes	Yes	Yes	No	No	(No)
Hardenbergia comptoniana	Yes	No	Yes	No	No	(No)
Sedges and Rushes						
Lepidosperma gladiatum	No	(No)	No	(No)	Yes	Yes
Juncus pallidus	No	(No)	No	(No)	Yes	Yes
Total	20	18	16	13	12	11
% of species listed in RMP Rev2		90%	81%		92%	

Brackets for Yes and No were used for April 2019 to indicate that the species was not listed as likely suitable for that particular rehabilitation area in the RMP Rev2 and regardless of presence/absence, the species would not count towards the species composition milestones or outcomes for that particular area.

3.3.2 Native Vegetation Structure

Native vegetation structure in the rehabilitation areas during April 2019 was as per the following:

- Eastern Area:
  - Upper storey (up to 10 - 15 m): Few remnant mature *Agonis flexuosa* and *Eucalyptus gomphocephala*.
  - Middle storey (1 - 8 m): Rehabilitation comprising *Eucalyptus* spp. (*Eucalyptus gomphocephala, E. marginata, E. rudis, Corymbia calophylla*), *Agonis flexuosa*, *Acacia saligna* and *Jacksonia furcellata* with occasional *Acacia cyclops*.
  - Understorey (up to 1 m): Rehabilitation comprising *Hakea prostrata, Rhagodia baccata, Macrozamia riedlei, Conostylis accuelata, Spyridium globulosum, Acacia pulchella* and young individuals of *Acacia* spp., *Agonis flexuosa*, *Eucalyptus* spp., *Banksia* spp., and *Xylomelum occidentale*. Some *Pteridium esculentum* was also present. Groundcover was mainly introduced weed species.
- Western Area:
  - Upper storey (up to 10 m): Few remnant mature *Agonis flexuosa*.
  - Middle storey (1 - 8 m): Rehabilitation comprising *Eucalyptus* spp. (mainly *Eucalyptus gomphocephala* and *E. rudis,* but also *E. marginata* and *Corymbia calophylla*), *Agonis flexuosa, Acacia cyclops, Acacia saligna* and *Jacksonia furcellata*.
  - Understorey (up to 1 m): Rehabilitation comprising juvenile *Hakea prostrata, Rhagodia baccata, Spyridium globulosum, Acacia pulchella* and young individuals of *Acacia* spp., *Agonis flexuosa, Eucalyptus* spp., *Banksia* spp. and *Xylomelum occidentale*. Groundcover was mainly introduced weed species.
- Sumpland:
  - Upper storey (10 - 15 m): Remnant mature *Melaleuca rhaphiophylla* and *Eucalyptus rudis*.
  - Middle storey (1 - 7 m): Remnant *Viminea juncea* with rehabilitation comprising mainly juvenile *Eucalyptus rudis, Agonis flexuosa, Melaleuca rhapiophylla, Viminea juncea* and *Acacia* spp.
  - Understorey (up to 1 m tall): Occasional remnant sedges and rushes with rehabilitation comprising *Juncus pallidus* and young individuals of *Melaleuca* spp., *Eucalyptus rudis, Agonis flexuosa, Viminea juncea* and *Acacia* spp. Groundcover was mainly introduced weed species.

Further details on height of native species in each quadrat/transect are provided in Appendix 2.

3.3.3 Native Plant Stem Density

A summary of native plant stem density from October 2012 to April 2019 is provided in Table 4. The reliability measure (SE/Mean) that was introduced in the RMP Rev2 was within target (<30%) for all rehabilitation areas in April 2019. Detailed results for each quadrat and transect surveyed in April 2019 are provided in Appendix 1.

Table 4: Native Plant Stem Density

Monitoring Occasion	Stems per Hectare											
	Eastern Area				Western Area				Sumpland			
	Mean	SE[1]	n[2]	SE/Mean[3]	Mean	SE	n	SE/Mean	Mean	SE	n	SE/Mean
Oct. 2012	1,500	204	4	-	320	193	5	-	2,300	-	1	-
March 2013	775	397	4	-	490	99	10	-	1,400	-	1	-
Nov. 2013	1,650	318	4	-	940	111	10	-	1,300	-	1	-
March 2014	740	258	5	-	600	99	13	-	950	250	2	-
Oct. 2014	975	119	8	-	953	84	15	-	1,700	200	2	-
March 2015	2,033	672	12	-	778	97	23	-	7,183	2,703	6	-
Oct. 2015	1,140	175	5	-	853	110	15	-	7,300	1,900	2	-
April 2016	1,410	544	10	-	594	69	18	-	3,340	1,447	5	-
Oct. 2016	1,619	695	8	-	503	85	18	-	2,767	1,271	3	-
May 2017[4]	1,158	245	6	21%	409	63	21	15%	2,163	468	4	22%
Oct/Nov 2017	1,536	129	7	8%	1,759	131	22	7%	2,038	464	4	23%
Mar/Apr 2018	1,275	189	6	15%	1,376	122	21	9%	2,063	377	4	18%
Nov 2018	1,633	183	6	11%	1,505	81	19	5%	1,938	360	4	19%
April 2019	1,517	163	6	11%	1,308	83	25	6%	2,013	339	4	17%

[1] SE = standard error *[2] n = number of quadrats/transects* *[3] '-' = not applicable*

[4] Change in methods from May 2017 onwards in Eastern Area and Sumpland.

3.3.4 Weeds

The most common weed species recorded in all three rehabilitation areas were *Cynodon dactylon* (couch grass) and various pasture grasses. Other relatively common species included *Trachyandra divaricata* and *Lupinus sp*. A few individuals of Declared Pest species *Zantedeschia aethiopica* (DP) and *Gomphocarpus fruticosus* (DP) were also recorded.

Live percentage weed cover for each rehabilitation area in April 2019 is presented in Table 5. The reliability measure (SE/Mean), that was introduced in RMP Rev2, was within target (<30%) for all rehabilitation areas. Complete results on weed species recorded in April 2019 are provided in Appendix 3.

Table 5: Live Percentage Weed Cover

Monitoring Occasion	Live Weed % Cover											
	Eastern				Western				Sumpland			
	Mean	SE	n[2]	SE/Mean	Mean	SE	n[2]	SE/Mean	Mean	SE	n[2]	SE/Mean
May 2017	7.88	0.85	6	11%	16.05	2.35	21	15%	25.53	7.36	4	29%
Oct/Nov 2017	19.69	3.82	7	19%	21.23	3.19	22	15%	44.88	1.43	4	3%
Mar/Apr 2018	2.17	0.73	6	29%	10.71	1.86	21	17%	26.00	2.27	4	9%
Nov 2018	5.68	1.63	6	29%	9.42	1.48	19	16%	23.63	2.64	4	11%
April 2019	3.65	0.55	6	15%	9.32	2.16	25	23%	13.63	1.45	4	11%

3.3.5 Grazing Impact

Evidence of kangaroos and rabbits (scats, tracks, foot prints and diggings) was recorded across all rehabilitation areas (apart from the fenced compound) in April 2019. While tree guards were protecting the youngest planted seedlings from grazing by kangaroos and rabbits, grazing was having a significant impact on plant survival overall. Snail grazing was also observed across the site and for the first time since monitoring began, some seedling deaths could be directly contributed to snails.

3.4 ASSESSMENT AGAINST TRIGGER VALUES

An assessment of monitoring results against trigger values specified in RMP Rev2 is presented in Table 6. Photo monitoring was undertaken to maintain a visual record of revegetation progress, however photo monitoring is not linked to any trigger values or contingency measures.

Table 6: Assessment Against Management Trigger Values

Parameter	Performance Indicator	Trigger Value (RMP Rev2)	Assessment	Contingency Measures
Fencing	Fence condition	Fence condition does not prevent livestock access	Not triggered	None necessary
	Signs of livestock access	Signs of livestock access	Not triggered	None necessary
Vegetation	Native species composition	Less than 85% of target flora species for a Rehabilitation Area present in that area (target species listed in Table 7 of RMP Rev2)	Triggered for Western Area (Western = 81%, however above the completion criteria of 80%).	Undertake infill planting during winter 2019 to increase species diversity in accordance with RMP Rev2.
	Native plant density	In 2017 and 2018: • Less than 1,650 stems per hectare on average in Eastern and Western Areas • Less than 420 stems per hectare on average in Sumpland	Not relevant to reporting period.	Not applicable
	Weed species composition	Presence of Declared Pest species	Triggered for all rehabilitation areas	Continue targeted weed control of the Declared Pest species in accordance with RMP Rev2.
	Live weed % foliage cover	In 2017 and 2018: • Average live weed % foliage cover 40% or higher	Not relevant to reporting period.	Not applicable

4. ASSESSMENT AGAINST MILESTONES AND PERFORMANCE TARGETS

An assessment of monitoring results against milestones and performance targets specified in RMP Rev2 is presented in Table 7. All milestones apart from stem density in the Western Area were achieved in April 2019. All relevant performance targets were also achieved in April 2019.

Table 7: Assessment Against RMP Rev2 Milestones and Performance Targets

Completion Criteria - Environmental Outcome Latest by 30 June 2021	Milestone[1]	Assessment Against Milestone	Performance Target	Assessment Against Performance Target
At least 80% of the species listed in RMP Rev2 Table 7 for a particular Rehabilitation Area are present in that Rehabilitation Area[2]	By 31 December 2017, achieve and maintain at least 80% of the species listed in RMP Rev2 Table 7 for a particular rehabilitation area[2]	Milestone of 80% target species achieved in all rehabilitation areas as shown in Table 3.	None applicable (2017 targets addressed in previous monitoring reports).	Not applicable
Achieve a self-sustaining vegetation community that, in the longer term, will provide habitat for the Western Ringtail Possum (*Pseudocheirus occidentalis*) and White-tailed Black Cockatoo (*Calyptorhynchus baudinii* and *C. latirostris*)	By 31 December 2017, achieve and maintain on average at least 1,500 stems per hectare in the Western and Eastern Areas[2] By 31 December 2017, achieve and maintain on average at least 380 stems per hectare in the Sumpland[2]	Eastern Area: Milestone of 1,500 stems per hectare achieved by end of 2017, achieved again in November 2018 and maintained to April 2019. Western Area: Milestone of 1,500 stems per hectare achieved by end of 2017, achieved again in November 2018, however not maintained over summer (1,308 stems per hectare by April 2019). Sumpland: Milestone of 380 stems per hectare achieved prior to 2017 and since maintained. For further information see Table 4.	None applicable (2017 targets addressed in previous monitoring reports).	
The average live weed cover is <50%	By 31 December 2017, achieve and maintain the average live weed cover of <50%	Milestone of <50% live weed cover achieved in all rehabilitation areas as shown in Table 5.	Undertake weed control biannually	Performance target met. Spraying undertaken for summer and winter weeds.

1 These milestones will be assessed on the basis of rehabilitation monitoring scheduled for October 2017 (see RMP Rev2 Section 8).

2 Including planted seedlings and native regrowth.

5. DISCUSSION AND CONCLUSION

While all milestones set in RMP Rev2 were achieved by the end of 2017 and again in November 2018, one of them (minimum stem density of 1,500 per hectare in Western Areas) was not maintained over the 2018/2019 summer period. In April 2019, the stem density in the Western Area was 1,308 per hectare. Failure to comply with a milestone triggers requirement to notify the Commonwealth Department of Environment and Energy (DoEE) within 14 days of the monitoring report being due, that is by 14 June 2019. Planting of seedlings scheduled for winter 2019 will address the shortfall in stem density so that the minimum density of 1,500 will again be achieved during the next monitoring occasion in spring 2019.

Assessment against management trigger values indicated that contingency measures were required to address species composition in the Western Area. The management trigger values are for operational purposes only and provide a safety margin against potential future compliance issues. The management trigger values will not be taken into consideration in determining whether the final completion criteria have been met.

The Sumpland area continues to consistently meet the final completion criteria and it is recommended that communication with DoEE is commenced to relinquish any further rehabilitation obligation in regards to this area.

PLATES

PLATE 1: VIEW NORTHEAST FROM ST1 – WESTERN REHABILITATION AREA

Plate 1: View Northeast from ST1 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

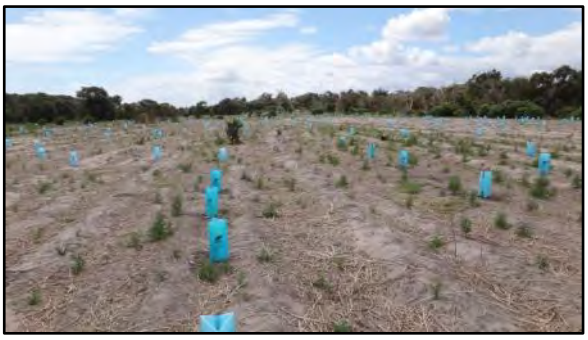
November 2013

March 2014

October 2014

March 2015

October 2015



April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 2: VIEW NORTHEAST FROM ST2 – WESTERN REHABILITATION AREA

Plate 2: View Northeast from ST2 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 3: VIEW NORTHEAST FROM ST3 – WESTERN REHABILITATION AREA

Plate 3: View Northeast from ST3 - Western Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

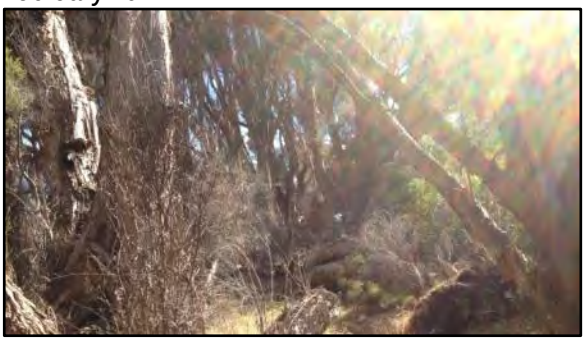
April 2019

PLATE 4: VIEW NORTHEAST FROM ST4 – SUMPLAND AREA

Plate 4: View Northeast from ST4 - Sumpland Area

August 2011

February 2012



July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 5: VIEW NORTHEAST FROM ST5 – EASTERN REHABILITATION AREA

Plate 5: View Southwest from ST5 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 6: VIEW NORTHEAST FROM ST6 – EASTERN REHABILITATION AREA

Plate 6: View Southwest from ST6 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

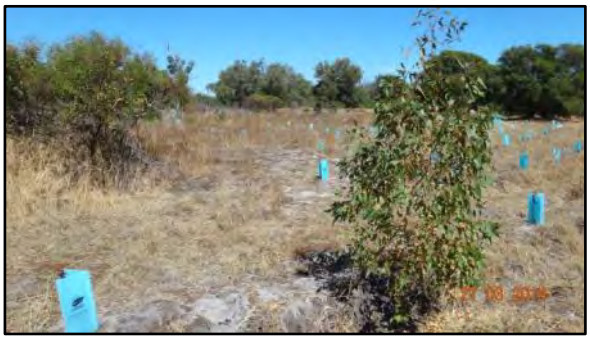
October 2012

March 2013

No data (incorrect view)

November 2013

March 2014



October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 7: VIEW NORTHEAST FROM ST7 – SUMPLAND AREA

Plate 7: View Southwest from ST7 - Sumpland Area

August 2011

February 2012

No data (incorrect view)

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 8: VIEW NORTHEAST FROM ST8 – EASTERN REHABILITATION AREA

Plate 8: View Southwest from ST8 - Eastern Rehabilitation Area

August 2011

February 2012

July 2012

October 2012

March 2013

November 2013

March 2014

October 2014

March 2015

October 2015

April 2016

October 2016

May 2017

October/November 2017

March/April 2018

November 2018

April 2019

PLATE 9: EASTERN AREA

Plate 9: Eastern Area

VMT01 - Start

VMT02 - Start

VMT03 - Start

TR01 - Start

TR02 - Start

TR03 - Start

VMT01 - End

VMT02 - End

VMT03 - End

TR01 - End

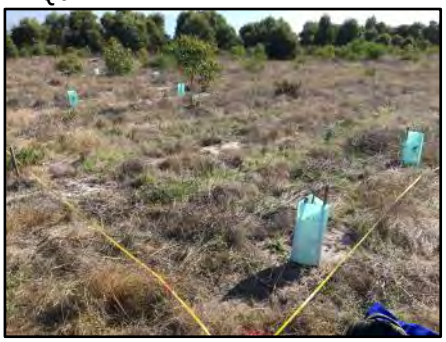
TR02 - End

TR03 - End

PLATE 10: WESTERN AREA

Plate 10: Western Area

VMQ01



VMQ02

VMQ03

VMQ04

VMQ05

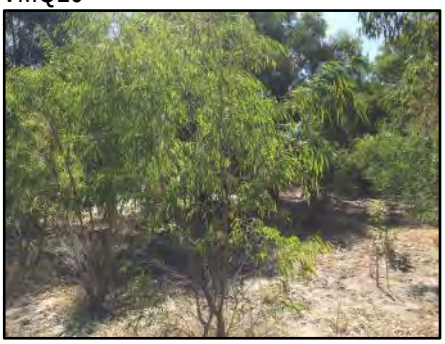
VMQ06

VMQ07

VMQ08

VMQ09

VMQ10

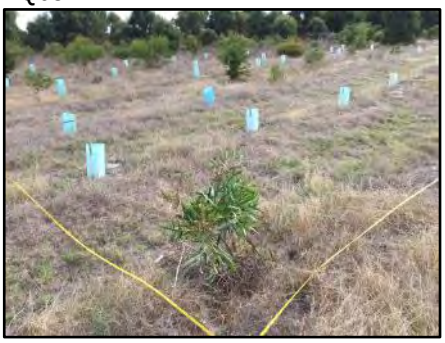


VMQ11

RQ01

RQ02

RQ03



RQ04

RQ05

RQ06

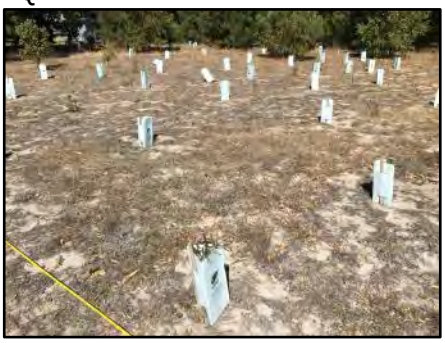
RQ07

RQ08

RQ09

RQ10

RQ11



RQ12

RQ13

RQ14

PLATE 11: SUMPLAND

Plate 11: Sumpland

VMT04 - Start

VMT05 - Start

VMT06 - Start

TR04 - Start

VMT04 - End

VMT05 - End

VMT06 - End

TR04 - End

APPENDICES

APPENDIX 1: NATIVE SPECIES RECORDED

Table A1.1: Native Species Recorded in April 2019 - Eastern Area

Species	Number of Individuals per Transect (2 by 100 m)						Obs.*
	VMT01	VMT02	VMT03	TR01	TR02	TR03	
Acacia cyclops	1	0	0	1	2	3	Y
Acacia pulchella	0	0	1	0	0	0	Y
Acacia saligna	1	4	4	6	5	6	Y
Agonis flexuosa	16	6	3	7	17	3	Y
Banksia attenuata	0	0	0	0	1	0	Y
Banksia grandis	1	0	0	0	0	0	Y
Bossiaea eriocarpa	0	0	0	0	0	0	N
Conostylis acuelata	0	0	0	0	0	0	Y
Corymbia calophylla	1	1	3	0	1	1	Y
Eucalyptus gomphocephala	12	8	4	4	8	5	Y
Eucalyptus marginata	0	3	0	1	0	0	Y
Eucalyptus rudis	5	3	2	2	2	0	Y
Hakea prostrata	4	1	6	2	2	3	Y
Hardenbergia comptoniana	0	0	0	0	0	0	N
Hibbertia cuneiformis	0	0	0	0	0	0	Y
Jacksonia furcellata	0	0	0	0	1	1	Y
Macrozamia riedlei	0	0	0	0	0	3	Y
Rhagodia baccata	0	0	1	1	1	0	Y
Spyridium globulosum	0	1	0	0	0	1	Y
Xylomelum occidentalis	0	0	0	0	0	0	Y
Total per 200 m^2 transect	41	27	24	24	40	26	

**Obs. = Opportunistic observation within the Eastern Area.* *Y = Yes, observed.* *N = No, not observed.*

Table A1.2: Native Species Recorded in April 2019 - Western Area

Species	Number of Individuals per Quadrat (10 by 10 m)																								Obs.
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11	RQ12	RQ13	RQ14	
Acacia cyclops	1	0	0	0	2	2	0	0	2	0	0	1	0	1	1	0	3	1	1	0	0	4	0	2	0	Y
Acacia pulchella	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	Y
Acacia saligna	1	1	0	1	0	1	3	3	2	2	1	0	1	1	1	0	1	1	1	2	4	4	3	14	3	Y
Agonis flexuosa	3	4	2	3	1	3	2	2	2	9	2	3	4	1	4	0	1	0	0	2	2	0	1	2	5	Y
Banksia attenuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Banksia grandis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Bossiaea eriocarpa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Conostylis acuelata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Corymbia calophylla	0	0	0	0	2	1	1	0	0	2	0	0	0	0	0	0	0	0	2	2	0	2	0	0	0	Y
Eucalyptus gomphocephala	1	6	3	6	7	0	6	3	3	5	4	5	7	3	6	3	2	4	4	2	3	1	0	1	5	Y
Eucalyptus marginata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Eucalyptus rudis	0	0	4	0	2	4	0	0	1	1	0	11	0	0	0	0	0	4	0	2	0	0	2	0	0	Y
Hakea prostrata	2	0	0	0	0	1	0	1	0	0	1	1	4	2	4	2	3	1	0	0	1	6	2	0	2	Y
Hardenbergia comptoniana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N
Hibbertia cuneiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Jacksonia furcellata	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	Y
Melaleuca preissiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Rhagodia baccata	0	0	0	4	0	0	2	0	0	0	0	0	0	0	0	4	1	3	0	1	0	0	0	0	0	Y
Spyridium globulosum	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	1	1	0	0	0	1	Y
Xylomelum occidentalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Y
Total per 100m^2	8	12	9	15	14	14	14	9	11	20	8	22	16	8	16	9	13	15	9	12	11	17	8	20	17	

**Obs. = Opportunistic observation within the Western Area.* *Y = Yes, observed.* *N = No, not observed.*

Table A1.3: Native Species Recorded in April 2019 - Sumpland

Species	Number of Individuals per Transect (2 by 100 m)				Obs.*
	VMT04	VMT05	VMT06	TR04	
Acacia cyclops	0	0	0	0	Y
Acacia saligna	5	0	0	3	Y
Agonis flexuosa	1	6	6	7	Y
Banksia littoralis	0	0	0	0	N
Eucalyptus rudis	17	12	41	15	Y
Juncus pallidus	1	0	5	3	Y
Lepidosperma gladiatum	0	1	0	0	Y
Melaleuca preissiana	0	0	0	1	Y
Melaleuca rhaphiophylla	11	3	2	3	Y
Rhagodia baccata	0	0	0	1	Y
Spyridium globulosum	0	2	0	0	Y
Viminaria juncea	1	5	6	3	Y
Total per 200m^2 transect	36	29	60	36	

**Obs. = Opportunistic observation within the Sumpland. Y = Yes, observed. N = No, not observed.*

APPENDIX 2: NATIVE SPECIES HEIGHTS

Table A2.1: Native Species Heights Recorded in April 2019 - Eastern Area

Species	Plant Height (up to m)					
	VMT01	VMT02	VMT03	TR01	TR02	TR03
Acacia cyclops	0.6	0	0	0.5	1.2	0.4
Acacia pulchella	0	0	1	0	0	0
Acacia saligna	0.5	1	3	1.5	1.2	2.2
Agonis flexuosa	6	3.5	4	3	4	3.5
Banksia attenuata	0	0	0	0	1	0
Banksia grandis	0.4	0	0	0	0	0
Bossiaea eriocarpa	0	0	0	0	0	0
Conostylis acuelata	0	0	0	0	0	0
Corymbia calophylla	0.5	0.6	0.8	0	0.5	4.5
Eucalyptus gomphocephala	8	7.5	7	6	6	3.5
Eucalyptus marginata	0	2	0	2	0	0
Eucalyptus rudis	7.5	4.5	6	3	5	0
Hakea prostrata	0.5	0.5	0.6	0.8	0.8	1.6
Hardenbergia comptoniana	0	0	0	0	0	0
Hibbertia cuneiformis	0	0	0	0	0	0
Jacksonia furcellata	0	0	2	0	1.5	3
Macrozamia riedlei	0	0	0	0	0	1
Rhagodia baccata	0	0	0.8	0.2	0.5	0
Spyridium globulosum	0	0.1	0	0	0	0.1
Xylomelum occidentalis	0	0	0	0	0	0

0 = Species Not recorded.

Table A2.2: Native Species Heights Recorded in April 2019 - Western Area

Species	Plant Height (up to m)																							
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11	RQ12	RQ13	RQ14
Acacia cyclops	0.3	0	0	0	2	0.7	0	0	0.4	0	0	0.4	0	0.8	1.2	0	0.4	0.3	0.3	0	0	0.5	0	0.4	0
Acacia pulchella	0	0	0	0.5	0	1	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0	0	0	0	0	0
Acacia saligna	0.3	0.4	0	0.7	0	1.7	0.4	0.4	0.6	2.5	1	0	0.3	1	1.7	0	0.4	0.3	0.4	0.4	3.5	0.5	1.7	3	1
Agonis flexuosa	0.5	1	0.7	4.5	1	1	0.6	0.5	0.5	3.5	1.7	1	1	0.5	1.7	0	1	0	0	2	2.5	0	2.5	0.5	3.5
Banksia attenuata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Banksia grandis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bossiaea eriocarpa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conostylis acuelata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Corymbia calophylla	0	0	0	0	1.7	1	0.5	0	0	1	0	0	0	0	0	0	0	0	0.3	0.5	0	0.4	0	0	0
Eucalyptus gomphocephala	1.5	1.7	3	7	8	0	7.5	7	3	8	5	1.7	2.5	1	2	6	6	3	8	7	3.5	0.5	0	2	4.5
Eucalyptus marginata	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eucalyptus rudis	0	0	2	0	1.6	3	0	0	3	1.2	0	2.3	0	0	0	0	0	3	0	1.2	0	0	1	0	0
Hakea prostrata	0.5	0	0	0	0	0.3	0	0.4	0	0	2.5	1	1	1.6	1	0.4	1.5	0.2	0	0	0.4	0.4	1.6	0	0.4
Hardenbergia comptoniana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hibbertia cuneiformis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jacksonia furcellata	0	1	0	0	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	2.5
Melaleuca preissiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rhagodia baccata	0	0	0	0.4	0	0	0.3	0	0	0	0	0	0	0	0	0.4	0.2	0.3	0	0.2	0	0	0	0	0
Spyridium globulosum	0	0	0	0	0	0	0	0	0.2	0	0	1	0	0	0	0	0	0.3	0.3	0.3	0.4	0	0	0	0.3
Xylomelum occidentalis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

0 = Species Not recorded.

Table A2.3: Native Species Heights Recorded in April 2019 - Sumpland

Species	Plant Height (up to m)			
	VMT04	VMT05	VMT06	TR04
Acacia cyclops	0	0	0	0
Acacia saligna	2.8	0	0	1.2
Agonis flexuosa	3.5	3.5	5	3
Banksia littoralis	0	0	0	0
Eucalyptus rudis	5.5	2.5	8	5
Juncus pallidus	1.5	0	2	1.5
Lepidosperma gladiatum	0	0.5	0	0
Melaleuca preissiana	0	0	0	0.3
Melaleuca rhaphiophylla	2	1.7	2	2
Rhagodia baccata	0	0	0	0.4
Spyridium globulosum	0	0.5	0	0
Viminaria juncea	0.2	3	3	2.5

0 = Species Not recorded.

APPENDIX 3: WEED SPECIES AND LIVE % COVER

Table A3.1: Weed Species and Live % Cover Recorded in April 2019 - Eastern Area

Species	Weed Species Present and Live % Cover					
	VMT01	VMT02	VMT03	TR01	TR02	TR03
Arctotheca calendula	p	a	a	a	a	a
Crassula sp.	a	p	a	p	a	p
Cynodon dactylon	p	p	p	p	p	p
Erodium sp.	a	a	a	a	a	a
Hypochaeris sp.	a	a	p	a	a	a
Lupinus sp.	p	p	p	p	p	p
Oenothera mollissima	a	p	a	a	a	p
Trachyandra divaricata	a	a	a	a	a	a
Wahlenbergia capensis	a	a	a	a	a	a
Other grasses	p	p	p	p	p	p
Live % Cover	5	4	4	3	3	2

p = present *a= absent*

Table A3.2: Weed Species and Live % Cover Recorded in April 2019 - Western Area

Species	Weed Species Present and Live % Cover																							
	VMQ01	VMQ02	VMQ03	VMQ04	VMQ05	VMQ06	VMQ07	VMQ08	VMQ09	VMQ10	VMQ11	RQ01	RQ02	RQ03	RQ04	RQ05	RQ06	RQ07	RQ08	RQ09	RQ10	RQ11	RQ12	RQ13	RQ14
Arctotheca calendula	a	a	p	p	a	a	a	a	a	a	p	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Conyza sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Crassula sp..	p	a	a	p	a	a	a	p	a	a	p	a	p	a	a	a	a	a	a	p	a	a	a	a	a
Cucumis myriocarpus	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Cynodon dactylon	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p	p
Erodium sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Gomphocarpus fruticosus (DP)	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Lupinus sp.	p	p	p	p	p	p	p	a	p	p	p	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Malva parviflora	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Oenothera mollissima	p	p	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Oxalis sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	p	a	a	a	a	a	a
Solanum nigrum	a	a	a	p	a	a	p	a	a	a	a	a	a	a	a	a	a	p	a	a	a	a	a	a	a
Sonchus sp.	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Trachyandra divaricata	p	p	a	a	a	a	p	p	a	a	a	p	p	a	p	a	a	a	p	a	a	a	a	a	a
Verbascum virgatum	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
Other grasses	p	p	p	p	a	p	p	p	p	p	p	p	p	p	p	p	a	a	p	a	p	p	p	p	p
Live % Cover	15	10	10	5	10	2	5	2	2	5	2	20	40	35	10	5	30	5	5	5	2	2	2	2	2

p = present *a= absen*

Table A3.3: Weed Species and Live % Cover Recorded in April 2019 - Sumpland

Species	Weed Species Present and Live % Cover			
	VMT04	VMT05	VMT06	TR04
Atriplex prostrata	p	p	a	a
Cynodon dactylon	p	p	p	p
Oxalis sp.	a	a	a	p
Solanum nigrum	p	p	p	p
Sonchus sp.	p	p	a	a
Zantedeschia aethiopica (DP)	a	p	a	a
Other grasses	p	p	p	p
Live % Cover	13	14	18	11

p = present a= absent

APPENDIX 7: WEED CONTROL

Kirsi Kauhanen

From: Darren Fraser <darren.fraser@bcgs.wa.edu.au>
Sent: Tuesday, 31 March 2020 7:18 AM
To: Kirsi Kauhanen
Subject: RE: Stratham rehabilitation - 2019 plantings

Only Hours wiper sniping and slashing.
Around 72 hours.
We tried not to use any poisons this year.

Regards

Darren Fraser| Operations Manager

Bunbury Cathedral Grammar School

Mob: 0417 017 384
5 Allen Road, Gelorup WA 6230 | PO Box 1198, Bunbury WA 6231
www.bcgs.wa.edu.au
CRICOS 00431K

APPENDIX 8: SEEDLINGS INVOICE

Boyanup Botanical

A.B.N.: 42 357 780 939
Lot 14 South West Highway Boyanup WA 6237
Phone: 0897315470 Fax: 0897315471

ENTERED

SUP REF 13292
INV No 116870
PO No 7901133
GL No 26380 7361 10
AMOUNT $1907.00
SIGN

"Stratham"

Tax Invoice

Invoice No	116870	Date	25/06/2019 1:30PM	Custom	P/O No- 7901133

Invoiced To Bunbury Cathedral Grammar School
P.O. Box 1198
BUNBURY WA 6231
AUSTRALIA

Customer ABN : 36-007-093-540

PH: 97226000

Deliver To:

Bar code	Description	Tax	Price $	Qty	Total $
28	Agonis flexuosa Full Tray 64Cell	GST	[redacted]	4	[redacted]
1191	Corymbia calophylla Full Tray cell	GST	[redacted]	2	[redacted]
15	Acacia saligna Full Tray cell	GST	[redacted]	8	[redacted]
8	Acacia cyclops Full Tray 64Cell	GST	[redacted]	8	[redacted]
1457	Hakea prostrata Full Tray cell	GST	[redacted]	5	[redacted]
1422	Spyridium globulosum Full tray cell	GST	[redacted]	2	[redacted]
209	Eucalyptus gomphocephala Full Tray cell	GST	[redacted]	2	[redacted]
1308	Olearia axillaris Full Tray cell	GST	[redacted]	1	[redacted]
1790	Rhagodia baccata Full Tray cell	GST	[redacted]	1	[redacted]
1871	Scaevola crassifolia Full Tray cell	GST	[redacted]	1	[redacted]
683	Tray Deposit Refundable Tray	GST	[redacted]	35	[redacted]

Bar code	Description	Tax	Price $	Qty	Total $

No. of Items (69)

Invoice & Account Details

Invoice No.	Payment Due	Account ID
116870	25/7/2019	960
Account Manager	Barb(served by Raelene)	
Invoice Received by		
Name	Signature	

Invoice Totals

Sub Total	[redacted]
Rounding	
Tax	[redacted]
TOTAL inc GST	[redacted]

Account Terms & Conditions

BANKING DETAILS - WESTPAC
BSB 036-122
A/C 27-8515

WE HOPE YOU ENJOYED YOUR VISIT TO BOYANUP BOTANICAL

APPENDIX 9: PLANTING WORKS

Kirsi Kauhanen

From: Darren Fraser <darren.fraser@bcgs.wa.edu.au>
Sent: Thursday, 26 March 2020 2:09 PM
To: Kirsi Kauhanen
Cc: Jenny Nobbs; Paul Davey
Subject: RE: Stratham rehabilitation - 2019 plantings
Attachments: SGrounds St20032613500.pdf

Hi Kirsi

Please see attached invoices for Plants fertiliser, lime, wetter soil etc.

We had some Casuals come and help with the planting please see below hours worked.

Grounds Casuals

Han Hung Chen – 44 Hours @ [redacted] per hour = [redacted]

Antoni Ciampi – 32 Hours @ [redacted] per hour = [redacted]

Our own personal were

2 personal 91 hours each.
1 personal 46 hours.

If I fined anything else I will pass it on as soon as I can, put I think that is everything.

Regards

Darren Fraser| Operations Manager

Bunbury Cathedral Grammar School

Mob: 0417 017 384
5 Allen Road, Gelorup WA 6230 | PO Box 1198, Bunbury WA 6231
www.bcgs.wa.edu.au
CRICOS 00431K

APPENDIX 10: INVOICE FOR FERTILISER AND OTHER TREATMENTS

Bunbury Cathedral Grammar School
PO Box 1198
Bunbury WA 6231
Phone: 08 9722 6000
ABN: 36 007 093 540

To: Richgro Garden Products & Amazon Soils
ATTN: David Myles
PO Box 1406
CANNINGVALE WA 6970
AUSTRALIA

Phone: 08 6258 7100

PURCHASE ORDER
7901429

Date: 4/06/2019
Req No:
Customer Ref: BCGS
Creditor: 32013
Ordered By: Davey, Paul

Code(s): 25240 1

Item	Qty	Please supply the following, subject to the conditions below:	Unit Price	Total (inc GST)
1	1	slow release fertiliser, lime, granular soil wetter for 2019 planting at Stratham rehabilitation block.	[redacted]	[redacted]

GST: [redacted]

TOTAL (inc GST): [redacted]

Delivery to: Not Selected
Date Required:

CONDITIONS:

1. Our Purchase Order number must be quoted on all Invoices & Delivery Dockets & Parcels.
2. We reserve the right to cancel the order if not received by the date specified.
3. Acceptance of the order is subject to our inspection of the goods received.

Signature: _____

RICHGRO
Bring your garden to life

AMAZON
The Experts in Soil Conditioners & Organics

P.O Box 1406 Canning Vale WA 6970
Ph: (08) 6258 7100 Fax: (08) 9455 1297
Email: customerservice@richgro.com.au

A.RICHARDS PTY LTD A.B.N 97 008 734 862
Trading as RICHGRO GARDEN PRODUCTS & AMAZON SOILS

CLAIMS – RETURNS
1. ONLY CLAIMS IN WRITING RECOGNISED WITHIN 14 DAYS
2. A SERVICE FEE OF 10% CHARGED ON ALL RETURNS
3. ALL GOODS SUPPLIED ON A BASIS OF NET EX STORE.
4 DAMAGED OR USED ARTICLES NON RETURNABLE.
FREIGHT ON ALL RETURNS MUST BE PREPAID

HEALTH WARNING:
GARDEN SOILS CONTAIN MICRO-ORGANISMS THAT MAY BE HARMFUL TO YOUR HEALTH. ALWAYS WEAR GLOVES, KEEP DAMP WHILE IN USE, AVOID INHALING THE MIX AND WASH YOUR HANDS AFTER USE

SOLD TO
SUPPLIER #
COD SOILS

Attn:

DELIVER TO
STORE #
BUNBURY GRAMMAR SCHOOL
(MAINTENANCE SHED)
5 ALLEN ROAD
GELORUP
6230

TAX INVOICE 403741

Invoice No.	403741
Page #	1
Date	04-JUN-19

CUSTOMER	SALES REP	YOUR PURCHASE ORDER	DATE ORDERED	DELIVER BY	ORDER No
*CODS	SB1	BUNBURY GRAMMAR	04-JUN-19	04-JUN-19	403741

ITEM No	ITEM	QUANTITY SUPPLIED	UNABLE TO SUPPLY	Unit Price	DISC	GST	AMOUNT
CRI6100	EZI-WET PROF STRENGTH 20KG TECH GRADE	10.00	0.00	[redacted]			
FOS0150	OSMOCOTE PRO LOW P 8-9MTH 16:1.3:13.3 + TE 25KG (NATIVE)	5.00	0.00				

PO 7901429

DELIVERY INSTRUCTIONS : VIA: BUNBURY FREIGHT
841 ABERNETHY RD FORRESTFIELD
PH: 9780 1000

SITE: C/- PAUL DAVEY
m: 0410 348 077

GROSS SALES	FREIGHT	OTHER CHARGES	DISCOUNT	TOTAL GST	TOTAL AMOUNT INCLUSIVE
[redacted]					

BANKING DETAILS
BSB: 086-136 ACCT. NUMBER: 587 963 585
A. RICHARDS PTY LTD

APPENDIX 11: SUBMISSION OF AUTUMN MONITORING REPORT

Kirsi Kauhanen

From: Jenny Duncan <jenny.duncan@bcgs.wa.edu.au>
Sent: Monday, 10 June 2019 1:09 PM
To: post.approvals@environment.gov.au
Cc: Kirsi Kauhanen
Subject: BCGS: Rehabilitation Monitoring Autumn - EPBC 2007/3333
Attachments: BCGS_Rehab__7.6.19.pdf; Rehabilitation Monitoring Autumn 2019 Final.pdf

Good afternoon,

Please find attached the rehabilitation monitoring report for autumn 2019, with accompanying letter for EPBC 2007/3333.

If you have any questions in regards to the report, please contact me directly.

Kind Regards

Mrs Jenny Duncan | Finance Manager

Bunbury Cathedral Grammar School

T (08) 9722 6011
5 Allen Road, Gelorup WA 6230 | PO Box 1198, Bunbury WA 6231
www.bcgs.wa.edu.au
CRICOS 00431K