

MUCHEA INDUSTRIAL PARK

COMPLIANCE REPORT
EPBC 2017/8119

16 December 2020

to

16 December 2021

Project Implementation Year 2

Prepared by Harvis,
with Emerge Technical Reports

(REV 1 - ISSUED)

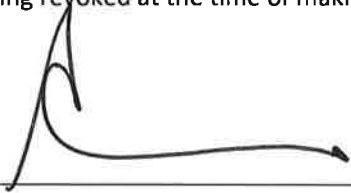
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1. DECLARATION OF ACCURACY

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: **Kelvin Flynn**

Position: **Managing Director**

Organisation: **Harvis Capital Pty Ltd, as trustee for the Northern Gateway Unit Trust No 2**
ABN – 99 450 875 764

Date: **25 / 01 / 2022**

2. TERMINOLOGY

The 'Compliance Status' field of the audit tables describes the implementation of actions and compliance with the approval. Table 1 details the terminology that has been applied in this audit report.

Specific Definitions:

Compliance Period: 16 December 2020 – 16 December 2021

Compliance Area: That area of the Muchea Industrial Park project that falls within the EPBC Act approval area (i.e. does not include the specifically agreed excised area)

Table 1 Audit terminology

Compliance status term	Abbreviation	Description
Regulatory requirements - applicable to the conditions of approval		
Compliant	C	When all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.
Completed	CLD	Where a requirement with a finite period of application has been satisfactorily completed.
Not Applicable	NA	Where the requirements of a condition or elements of a condition fall outside of the scope of the current reporting period. For example, a condition which applies to an activity that has not yet commenced.
Non-compliant	NC	Where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.
Corporate policies, standards and procedures – applicable to the CEMP		
Conformant	C	When sufficient evidence has been provided to confirm that the requirements within a corporate policy, standard and/or procedure (including an environmental management plan) has been satisfactory implemented.
Completed	CLD	Where a requirement with a finite period of application has been satisfactorily completed.
Not Applicable	NA	Where the requirements of a corporate policy, standard and/or procedure (including an environmental management plan) fall outside of the scope of the current reporting period. For example, a management plan which applies to an activity that has not yet commenced.
Non-conformant	NC	Where the requirements within a corporate policy, standard and/or procedure (including an environmental management plan) have not been satisfactory implemented.

3. DESCRIPTION OF ACTIVITIES

EPBC Number:	2017 / 8119
Project Name:	Muchea Industrial Park, Great Northern Highway Muchea
Approval Holder (ABN):	Harvis Capital Pty Ltd, as trustee for the Northern Gateway Unit Trust No 2 ABN – 99 450 875 764
Person Accepting Report Responsibility:	Kelvin Flynn (See Section 1 for Declaration)
Approved Action:	To clear vegetation and construct an industrial precinct and related infrastructure at Lot 809 Great Northern Highway, Muchea, Western Australia.
Dates for the Reporting Period of the Report:	16 / 12 / 2020 – 16 / 12 / 2021 <i>(Note: Second Reporting Period for the Project)</i>
Date of Preparation of the Report:	25 / 01 / 2022

Description of Activities

The activities within the reporting period relevant to the Approved Action are summarised as follows:

- Clearing of a further 2.46ha (cumulative total 4.19 of up to 12.55 hectares permitted) of 'Black Cockatoo Habitat' have been cleared, with 18.62ha remaining undisturbed in-situ.
- No additional clearing (cumulative total 0.17 of up to 0.43 hectares permitted) of 'Banksia Woodlands TEC' have been cleared, with 7.11ha continuing to remain undisturbed in-situ.
- The first of two trees containing the potential 'nesting hollows' have been cleared as part of the current works, having been confirmed for removal following continued monitoring. Hollow monitoring of the trees was undertaken during peak breeding season as outlined here-in.
- Monitoring during peak breeding season was undertaken of the previously installed 6x 'artificial nesting hollows' as outlined here-in.

Section 4, Table 2 below provides the tabulated detail of the current compliance status and relevant actions against each of the specific approval conditions of EPBC 2017/8119.

4. COMPLIANCE TABLE

Table 2: List of approval conditions and current compliance status of EPBC 2017/8119

Condition No.	Condition	Compliance Status	Evidence / Comments
Part A – Conditions specific to the action			
1	The approval holder must not clear more than 12.55 hectares of black cockatoo habitat and must not clear more than 0.43 hectares of Banksia Woodlands TEC within the project area .	N/A	<p>Overall project clearing works ongoing.</p> <p>Extent of clearing works undertaken to date are well within areas calculated to be ultimately cleared and do not impact on compliance with the overall condition values.</p> <p>With respect to 'Black Cockatoo Habitat', to date 4.19ha have been cleared with 18.62ha remaining. See <i>Annexure A – Figure 1: 2021 Clearing Extent - Black Cockatoo Habitat</i></p> <p>With respect to 'Banksia Woodlands TEC', to date 0.17ha have been cleared with 7.11ha remaining. See <i>Annexure B – Figure 2: 2021 Clearing Extent - Banksia Woodland TEC</i></p> <p>Not-Applicable - Condition Works Ongoing.</p>
2	To mitigate impacts to black cockatoos and black cockatoo habitat , the approval holder must implement the Construction Environmental Management Plan (CEMP) during construction .	Compliant	<p>The CEMP was implemented during construction, with the CEMP incorporated into requirements of Civil Contractor (Wormal Contracting) responsibilities and implemented by Stage 1D clearing works.</p> <p>The CEMP implementation actions are specified in Annexure H - Table 3 below. Further stages of Civil Contractors works will continue to ensure the CEMP are implemented via the contractor's management plans.</p> <p>See <i>Annexure H – Table 3: Conformance with Construction Environmental Management Plan</i></p> <p>Compliant.</p>
3	<p>To mitigate impacts to black cockatoos and Banksia Woodlands TEC, the approval holder must, no later than 12 months following the submission of the final report under Condition 4f., provide the Department with:</p> <ul style="list-style-type: none"> a) written evidence demonstrating that a restrictive statutory conservation covenant has been established over the identified conservation reserves for their protection in perpetuity b) written evidence demonstrating that ownership of the conservation reserves has been ceded to the Shire of Chittering c) the conservation reserves' attributes, shapefiles and textual descriptions and maps to clearly define the location and boundaries of the conservation reserves. 	N/A	<p>Condition ongoing</p> <p>Neither conditions 3a), 3b) or 3c) have yet reached a point of implementation to be created. We expect to implement Condition 3 on a staged basis within future reporting periods.</p> <p>Not-Applicable – Condition Ongoing.</p>

Condition No.	Condition	Compliance Status	Evidence / Comments
4	<p>To mitigate the loss of 12.55 hectares of black cockatoo habitat and improve potential breeding and foraging opportunities for black cockatoos in the project area, the approval holder must:</p> <p>a) undertake revegetation works within the conservation reserves to establish a self-sustaining vegetation cover integrated with the surrounding ecosystem which provides black cockatoo habitat and that meets the completion criteria</p> <p>b) ensure that the density of planted vegetation is sufficient to account for mortality to meet the completion criteria and until the reserves are ceded to the Shire of Chittering</p> <p>c) commence revegetation required under Condition 4.a. within 12 months of commencement of the action</p> <p>d) provide the Department with written and photographic evidence of the commencement of the revegetation works within 10 days of their commencement</p> <p>e) not cease revegetation works until a suitably qualified horticulturist has verified that the revegetation works meet the completion criteria and the Department has been provided with written evidence, endorsed by a suitably qualified horticulturist, that the revegetation works meet the completion criteria</p> <p>f) upon attainment of the completion criteria, ensure all areas of revegetation are inspected by a suitably qualified horticulturist once every two years, during spring, for a further 10 years to ensure the completion criteria are maintained and provide the Department with a report of each inspection within 40 days after the inspection</p> <p>g) re-establish the completion criteria within revegetated areas within three months of becoming aware that an area of revegetation no longer meets the completion criteria.</p>	Compliant (Except 4d)	<p>Overall Condition still ongoing:</p> <p>4a) Ongoing. Additional revegetation works have commenced within part of the (future) Central Reserve (where forward preparation works could be completed this reporting period). The full extent of revegetation works will be implemented over several future years (winter seasons) as the necessary preparatory/interface civil works are completed. See <i>Compliance Report Year 1 for Notification of Commencement of Revegetation Works</i></p> <p>4b) Ongoing, subject to full extent of revegetation planting being implemented.</p> <p>4c) Compliant. As previously reported (Reporting Period 1), initial revegetation works commenced on 8th October 2020, within the 12-month window of the notified commencement of the action (16th December 2019). See <i>Compliance Report Year 1 for Notification of Commencement of Revegetation Works</i></p> <p>4d) Non-Compliant (late). As previously reported (Reporting Period 1), written and photographic evidence of the commencement of revegetation was provided on 2nd December 2020, however this should technically have been provided by 18th October 2020. Notification of the non-compliance was raised within the notification letter itself. See <i>Compliance Report Year 1 for Notification of Commencement of Revegetation Works</i></p> <p>4e) Ongoing. Revegetation works are confirmed as continuing, with further planting scheduled for Winter 2022 (and beyond).</p> <p>4f) N/A. Revegetation works not yet complete.</p> <p>4g) N/A. Revegetation works not yet complete.</p> <p>Generally Compliant, except 4d), which has previously been noted (see Reporting Period 1) as a late (administrative) notification.</p>
5	<p>To mitigate impacts to nesting black cockatoos, the approval holder must, within two days prior to clearing the two known nesting hollows, investigate these hollows to determine if they are currently utilised by black cockatoos for nesting. The investigation must be undertaken by a suitably qualified person. If any black cockatoos are detected utilising any hollow in any tree, the approval holder must:</p> <p>a) clearly identify and mark the nesting tree</p> <p>b) not clear the identified nesting tree or any vegetation within a 10 metre radius of that tree until a suitably qualified ecologist has verified that the hollow in the tree is no longer being used by black cockatoos.</p>	Compliant	<p>Overall Condition still ongoing:</p> <p>5a) Ongoing. The 2x trees containing the potential 'nesting hollows' were inspected immediately prior to commencing the current period clearing works. As a result, 1 of 2 trees was excluded from the current clearing works due to presence of an owl. No presence of currently being utilised for black cockatoo nesting, and consequently tree number 2 was cleared during the current works as planned. See <i>Annexure C – Evidence of Potential Nesting Trees Currently Retained</i>.</p> <p>5b) Compliant/Ongoing. 10-20m setback zones was retained around the currently retained tree (where owl was present). See <i>Annexure C – Evidence of Potential Nesting Trees Currently Retained</i>.</p> <p>Compliant.</p>

Condition No.	Condition	Compliance Status	Evidence / Comments
6	<p>To mitigate and offset the loss of two known nesting hollows within the project area, the approval holder must install, within the conservation reserves and in accordance with artificial hollow installation guidelines, at least six artificial nesting hollows. To maximise the likelihood of the installed artificial nesting hollows being used by black cockatoos, the approval holder must:</p> <p>a) install at least six artificial nesting hollows prior to the beginning of the next breeding season following the commencement of the action</p> <p>b) undertake adaptive management of the artificial nesting hollows, and as a component of adaptive management, ensure that each installed artificial nesting hollow is:</p> <p>i. monitored and maintained in accordance with relevant artificial hollow maintenance guidelines for the life of the approval, with maintenance actions undertaken outside of the breeding season and before the commencement of the next breeding season</p> <p>ii. not install in a manner that requires additional clearing of black cockatoo habitat or within 10 metres of the edge of the road seals or buildings, to reduce the risk of vehicle strike and human disturbance.</p> <p>c) prior to clearing the known nesting hollows, have a suitably qualified ecologist undertake a hollow inspection of the known nesting hollows during the peak breeding season across three consecutive years, to confirm whether black cockatoo nesting is occurring. If a suitably qualified ecologist certifies in writing that no black cockatoo nesting occurred in any of the three consecutive years, then compliance with Condition 6d, 6e and 7 is not required.</p> <p>d) ensure that each installed artificial nesting hollow is inspected at least twice each year, and at least 4 weeks apart, by a suitably qualified ecologist during the peak breeding season for nine years to record any evidence of use by black cockatoos and to identify any maintenance requirements</p> <p>e) not cease adaptive management of artificial nesting hollows until at least one artificial nesting hollow¹ for each known nesting hollow identified with evidence of black cockatoo nesting under Condition 6.c. has shown evidence of black cockatoo nesting, as verified in writing by a suitably qualified ecologist, for three consecutive years.</p>	Compliant	<p>Overall Condition still ongoing:</p> <p>6a) Compliant. As previously reported (Reporting Period 1), following commencement of the action on 16 December 2019, 6x artificial nesting hollows were installed on 23 June 2020, prior to the beginning of the next breeding season in July 2020. <i>See Compliance Report Year 1 for Confirmation of 6x Artificial Nesting Hollows Installation</i></p> <p>6b)i) Ongoing. Ongoing inspections showed that no damage or adaptive measures were necessary for the 2021 period and that as at 1 December 2021 the Artificial Hollows remain in working order. <i>See Annexure F – Black Cockatoo Artificial Hollow Monitoring Report</i></p> <p>6b)ii) Compliant. As previously reported (Reporting Period 1), no habitat was required to be cleared for installation of the Artificial Nesting Hollows and locations are greater than 10m from any adverse conditions. <i>See Compliance Report Year 1 for Artificial Hollows Installation Conformance</i></p> <p>6c) Compliant. Qualified ecologists undertook hollow inspections on the following peak breeding dates: 5 November 2018 (2018 Peak Breeding Season) 15 October 2019 (2019 Peak Breeding Season) 30 September 2020, 5 October 2020 & 16 December 2020 (2020 Peak Breeding Season) At no times during the inspected dates was nesting observed to be occurring, and accordingly the letter attached at Annexure G certifies that no black cockatoo nesting occurred in any of the three consecutive years. As such, compliance with Condition 6d, 6e and 7 is not required. <i>See Compliance Report Year 1 for Black Cockatoo Hollow Monitoring Results Letter (3-Years)</i></p> <p>6d) No Longer Applicable. In accordance with 6c) outcomes above, compliance with condition 6d) is no longer formally required. Notwithstanding, following the installation of the 6x artificial hollows on 23 June 2020, and inspections during the 2020 Peak Breeding Season, a further inspection was undertaken by Emurge Associates qualified ecologist during the 2021 Peak Breeding Season on 1 December 2021. No evidence of nesting was witnessed at the hollows during inspection. <i>See Annexure F – Black Cockatoo Artificial Hollow Monitoring Report</i></p> <p>6e) No longer Applicable. In accordance with 6c) outcomes above, compliance with condition 6e) is no longer formally required. Notwithstanding, Harvis and Emurge continued to monitor the artificial hollow in the current 2021 Reporting Period, wherein no damage or adaptive management was seen to be required. <i>See Annexure F – Black Cockatoo Artificial Hollow Monitoring Report</i></p> <p>Compliant.</p>

¹ The artificial nesting hollow in use for three consecutive years need not be the same artificial nest hollow each year.

Condition No.	Condition	Compliance Status	Evidence / Comments
7	<p>If, after nine years from commencement of the action, the approval holder is unable to provide the verification by a suitably qualified ecologist required under Condition 6.e., the approval holder must, within ten years after commencement of the action:</p> <p>a) submit to the Minister for approval, the details of an offset that meets the requirements of the EPBC Environment Offsets Policy and will compensate for the permanent loss of the two known nesting hollows</p> <p>b) submit to the Department a detailed assessment of the factors that caused the failure to achieve black cockatoo nesting in at least one artificial nesting hollow² for each suitable nesting hollow for three consecutive years.</p>	N/A	<p>No Longer Applicable. In accordance with 6c) outcomes above, compliance with condition 7 is no longer formally required.</p> <p>Not Applicable.</p>
8	<p>All data, enquiries and findings of the monitoring required by Condition 6 must be provided to the Department to contribute to broader research into the use of artificial nesting hollows by black cockatoos. Provision must occur within one year of the verification by a suitably qualified ecologist required under Condition 6.e. being obtained, or within 25 business days after submitting the assessment report required under Condition 7.b.</p>	N/A	<p>Not Applicable. The current compliance reporting period has not yet yielded any reportable findings. Monitoring outcomes will be reported in future years as applicable, noting that Condition 7b) is now no longer applicable per 6c) determination.</p>
Part B – Standard administrative conditions			
Notification of date of commencement of the action			
9	The approval holder must notify the Department in writing of the date of commencement of the action within 10 business days after the date of commencement of the action .	Compliant	<p>As previously reported (Reporting Period 1), the action commenced on 16 December 2019, and a notification letter was sent to the Department on the same day, along with an email copy on 20 December 2019.</p> <p>See <i>Compliance Report Year 1 for Notification Advising Commencement of Action</i></p> <p>Compliant.</p>
Compliance records			
10	The approval holder must maintain accurate and complete compliance records .	Compliant	<p>Ongoing. Compliance records commencing with this current second compliance report are being maintained by the approval holder and the project's environmental consultant (Emerge Associates), with the key information documented here-in.</p> <p>Compliant.</p>

² The artificial nesting hollow in use for three consecutive years need not be the same artificial nest hollow each year.

Condition No.	Condition	Compliance Status	Evidence / Comments
11	<p>If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.</p> <p>Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.</p>	N/A	<p>No requests made to date.</p> <p>Not Applicable.</p>
Preparation and publication of plans			
12	<p>The approval holder must:</p> <ol style="list-style-type: none"> submit plans electronically to the Department; publish each plan on the website within 20 business days of the date the plan is approved by the Minister or of the date a revised action management plan is submitted to the Department, unless otherwise agreed to in writing by the Minister; exclude or redact sensitive ecological data from plans published on the website or provided to a member of the public; and keep plans published on the website until the end date of this approval. 	Compliant	<p>As previously reported (Reporting Period 1), the applicable 'plan' is the approved Construction Environmental Management Plan (CEMP).</p> <p>12a) Compliant – CEMP was submitted electronically to the Department during the EPBC Act assessment process for the project. See <i>Compliance Report Year 1 for record of Submitted CEMP to Department</i></p> <p>12b) Compliant – The CEMP was uploaded to the project website on 20 December 2019, within 20 business days of the action commencing on 16 December 2019. Email from Harvis to DAWE confirming this dated 20 December 2019. See <i>Compliance Report Year 1 for record Advising of CEMP Upload</i></p> <p>12c) N/A – there was no sensitive ecological data to exclude or redact. The full CEMP is available online.</p> <p>12d) Compliant – the CEMP remains on the project website. See <i>Annexure G for Evidence of CEMP & Compliance Report Remaining Published to Website</i></p> <p>Compliant.</p>
13	<p>The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under conditions of this approval, is prepared in accordance with the Department's Guidelines for biological survey and mapped data (2018) and submitted electronically to the Department within six months of monitoring taking place.</p>	Compliant	<p>The monitoring outcomes are provided in Annexure F, and are prepared and retained in a format as required by the Department's guidelines, being submitted electronically herein to the Department.</p> <p>Compliant.</p>

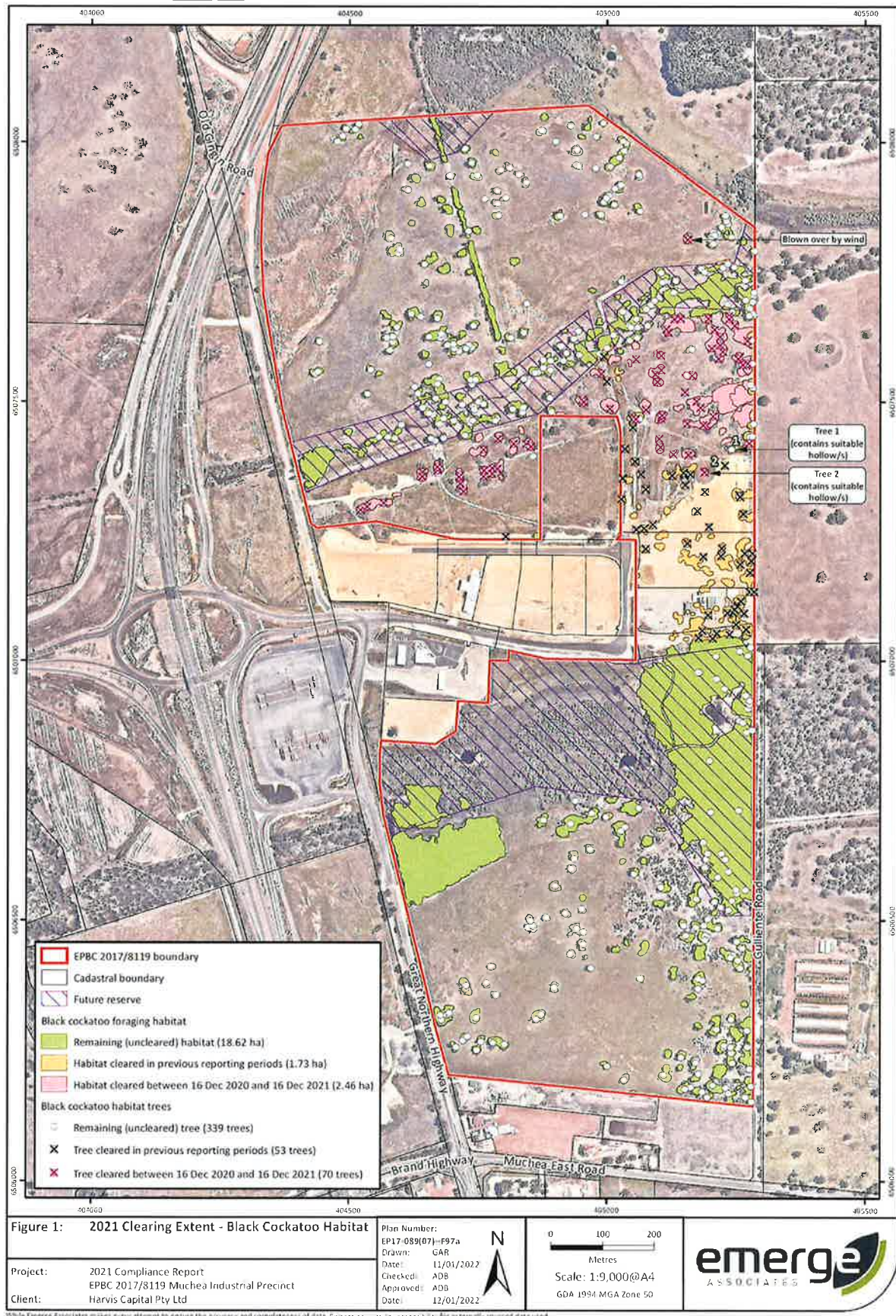
Table 2: List of approval conditions and current compliance status of EPBC 2017/8119 (continued)

Condition No.	Condition	Compliance Status	Evidence / Comments
Annual compliance reporting			
14	<p>The approval holder must prepare a compliance report for each 12 month period following the date of commencement of the action, or otherwise in accordance with an annual date that has been agreed to in writing by the Minister. The approval holder must:</p> <ol style="list-style-type: none"> publish each compliance report on the website within 20 business days following the relevant 12 month period; notify the Department by email that a compliance report has been published on the website and provide the weblink for the compliance report within five business days of the date of publication; keep all compliance reports publicly available on the website until this approval expires; exclude or redact sensitive ecological data from compliance reports published on the website; and where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within five business days of publication. <p>Note: Compliance reports may be published on the Department's website.</p>	Compliant	<p>Overall Condition still ongoing:</p> <p>14a) The Muchea Industrial Precinct Compliance Report (for EPBC approval 2017/8119) will be published on the project website by 31 January 2022 at https://www.muchea-industrial-park.com.au/muchea/downloads.</p> <p>Note: The current compliance report represents the second reporting period.</p> <p>14b) The Department will be notified via email by 4 February 2022 that the 2021 ACR was published on the Muchea Industrial Park project website by 31 January 2021.</p> <p>14c) Ongoing. The compliance reports will remain available.</p> <p>14d) Not Applicable. No sensitive ecological data applicable to reports to date.</p> <p>14e) Not Applicable. No sensitive ecological data applicable to reports to date.</p> <p>Compliant.</p>
Reporting non-compliance			
15	<p>The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:</p> <ol style="list-style-type: none"> any condition which is or may be in breach; short description of the incident and/or non-compliance; and the location (including co-ordinates), date and time of the incident and/or non-compliance. 	Compliant	<p>No incidents or non-compliances occurred in the current reporting period.</p> <p>As previously reported (Reporting Period 1), as outlined in condition 4d) above, in preparing the notification of commencement of revegetation works, the approval holder became aware that the notification itself was late/over-due. Whilst the revegetation works themselves were undertaken within the required compliance timeframe, the follow-up advice notification itself was prepared on the 2nd December 2020 (due 18th October 2020). As the non-compliance was administrative in nature (not physical) the matter of late reporting was outlined within the notification itself.</p> <p>See Annexure C – Notification of Commencement of Revegetation Works.</p> <p>Compliant.</p>

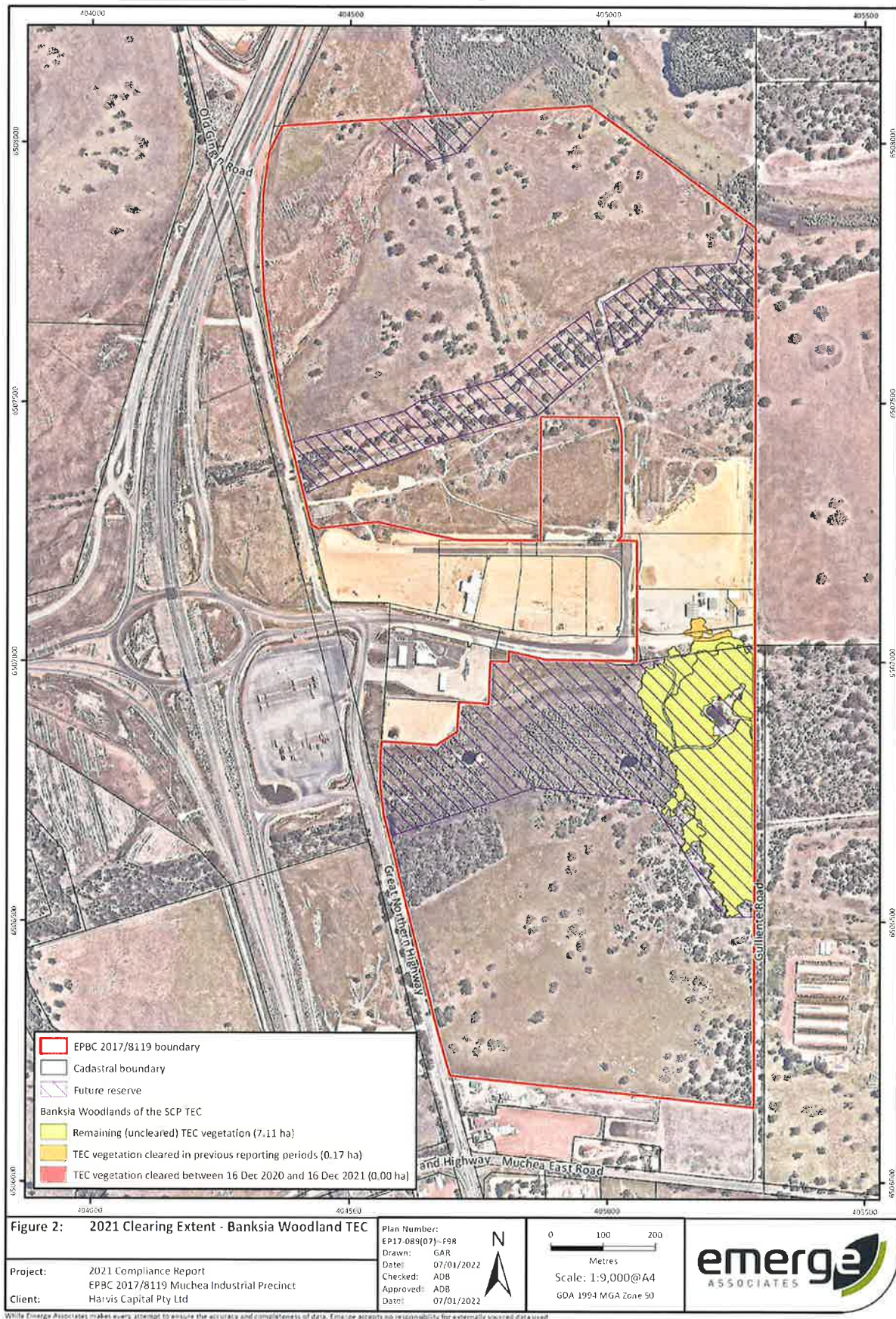
16	<p>The approval holder must provide to the Department the details of any incident or non-compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the incident or non-compliance, specifying:</p> <ul style="list-style-type: none"> a) any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future; b) the potential impacts of the incident or non-compliance; and c) the method and timing of any remedial action that will be undertaken by the approval holder. 	Compliant	<p>No incidents or non-compliances occurred in the current reporting period.</p> <p>As previously reported (Reporting Period 1), as outlined in condition 4d) and 15) above, in preparing the notification of commencement of revegetation works, the approval holder became aware that the notification itself was late/over-due. Whilst the revegetation works themselves were undertaken within the required compliance timeframe, the follow-up advice notification itself was prepared on the 2nd December 2020 (due 18th October 2020). As the non-compliance was administrative in nature (not physical) the matter of late reporting was outlined within the notification itself.</p> <p>16a) As the non-compliance was administrative in nature, the admission of error (late reporting) was provided, and no further action is proposed.</p> <p>16b) As the non-compliance was administrative in nature, there are not expected to be any result on-ground impacts as a result of the non-compliance.</p> <p>16c) As the non-compliance was administrative in nature and was for a one-off administrative notification, no further remedial action is proposed unless advised otherwise by the Department.</p> <p>Compliant.</p>
Independent audit			
17	The approval holder must ensure that independent audits of compliance with the conditions are as requested in writing by the Minister .	N/A	No audit requests made to date. Not Applicable.
18	<p>For each independent audit, the approval holder must:</p> <ul style="list-style-type: none"> a) provide the name and qualifications of the independent auditor and the draft audit criteria to the Department; b) only commence the independent audit once the audit criteria have been approved in writing by the Department; and c) submit an audit report to the Department within the timeframe specified in the approved audit criteria. 	N/A	No audit requests made to date. Not Applicable.
19	The approval holder must publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit report published on the website until the end date of this approval.	N/A	No audit requests made to date. Not Applicable.
Revision of action management plans			
20	The approval holder may, at any time, apply to the Minister for a variation to the CEMP by submitting an application in accordance with the requirements of section 143A of the EPBC Act . If the Minister approves a revised CEMP then, from the date specified, the approval holder must implement the revised CEMP in place of the previous CEMP .	N/A	No modification to the CEMP required at this time. Not Applicable.

21	The approval holder may choose to revise the CEMP without submitting it for approval under section 143A of the EPBC Act , if the taking of the action in accordance with the revised CEMP would not be likely to have a new or increased impact .	N/A	No modification to the CEMP required at this time. Not Applicable.
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Annexure A - Figure 1: 2021 Clearing Extent - Black Cockatoo Habitat



Annexure B - Figure 2: 2021 Clearing Extent - Banksia Woodland TEC

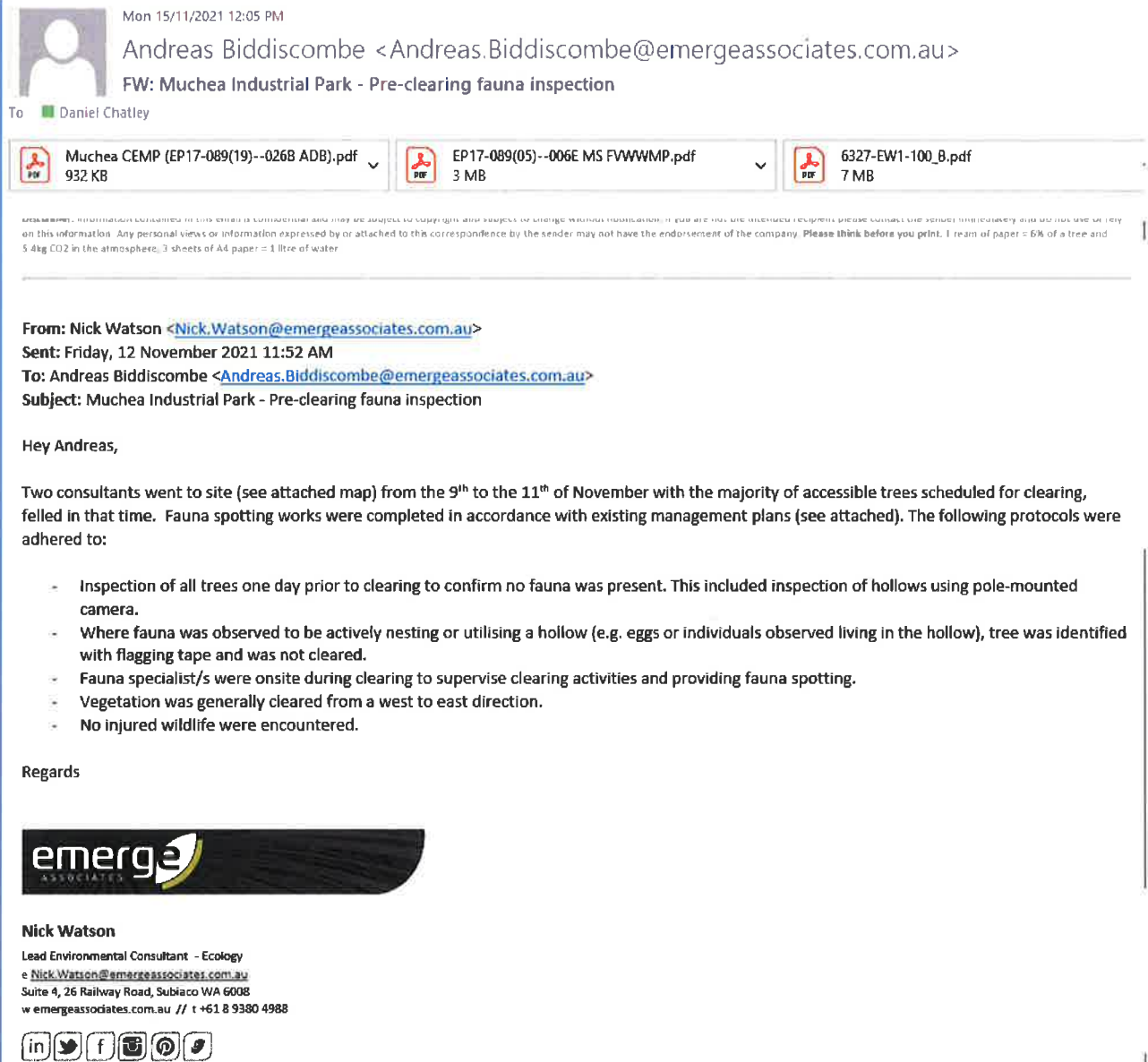


Annexure C - Evidence of Potential Nesting Trees Currently Retained



Aerial Photo of Potential Nesting Trees: Tree #2 Currently Retained in Place & Tree #1 Now Removed
Image Date 05 December 2021 (Source: MNGAccess MetroMaps)

Annexure D - Email evidence of Emerge Engagement to Fauna Inspection



Annexure E - Black Cockatoo Natural Hollow Pre-Clearing Inspection Report

Document Reference: EP17-089(26)-059 NAW

Emerge contact: Rachel Weber

23 November 2021

PERTH OFFICE
Suite 4, 26 Railway Road
Subiaco
Western Australia 6008

P +61 8 9380 4988
F +61 8 9380 9636
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN
5714772510 trading as Emerge Associates

Attention: Daniel Chatley
Harvis
Level 9, 190 St George's Terrace,
PERTH WA 6000

Delivered by email to: Daniel@harvis.com.au

Dear Daniel

BLACK COCKATOO NATURAL HOLLOW PRE-CLEARING INSPECTION – LOT 809 GREAT NORTHERN HIGHWAY, MUCHEA

This letter provides the results of the natural black cockatoo hollow pre-clearing inspection undertaken within Lot 809 Great Northern Highway in Muchea in November 2021. The locations of the site and the natural hollows are shown in **Figure 1**.

1 BACKGROUND

Harvis are currently developing the Muchea Industrial Precinct which comprises Lot 809 Great Northern Highway in Muchea, Western Australia (hereafter referred to as the 'site'). Emerge have previously undertaken multiple ecological surveys within the site and recorded habitat trees for threatened species of black cockatoo listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Implementation of the Muchea Industrial Precinct project is subject to an environmental approval issued under the EPBC Act, which was granted on 8 November 2019 (EPBC 2017/8119). The approval relates to potential impacts of the project on EPBC Act listed matters of national environmental significance (MNES), including threatened species of black cockatoo and the Banksia Woodland ecological community.

The approval includes multiple conditions related to trees with hollows that may be utilised by threatened species of black cockatoo as breeding habitat, including requirements to monitor two 'known nesting hollows' (natural hollows) within the site. These conditions include the following:

5. *To mitigate impacts to nesting black cockatoos, the approval holder must, within two days prior to clearing the two known nesting hollows, investigate these hollows to determine if they are currently utilised by black cockatoos for nesting. The investigation must be undertaken by a suitably qualified person. If any black cockatoos are detected utilising any hollow in any tree, the approval holder must:*
 - a) *clearly identify and mark the nesting tree*
 - b) *not clear the identified nesting tree or any vegetation within a 10 metre radius of that tree until a suitably qualified ecologist has verified that the hollow in the tree is no longer being used by black cockatoos*

2 SCOPE OF WORK

Emerge Associates (Emerge) were engaged by Harvis to undertake an inspection of the two habitat trees with natural hollows and provide a report to satisfy condition 5 above.

Specifically, the scope of work comprised the following task:

- Inspect two natural hollows prior to clearing (November 2021) using a pole mounted camera in the peak breeding season (between September and December).
- Preparation of a report detailing the outcomes of the inspection.

3 METHODS

3.1 Hollow inspections

Two ecologists from Emerge visited the site to undertake a pre-clearing hollow inspection on 8 November 2021 which falls within the *Calyptrorhynchus latirostris* (Carnaby's cockatoo) peak breeding season (1 September to 31 December) and the *Calyptrorhynchus banksii naso* (forest red-tailed black cockatoo) breeding season.

During this inspection the two natural hollows were inspected using a pole mounted camera (GoPro). The internal hollow inspection searched for signs of black cockatoo hollow use such as chicks, brooding birds or chew marks around the hollow entrance, nesting material such as feathers and presence of birds perching at the entrance or entering the hollow.

3.2 Data analysis

Following the field survey, the photographs of the natural hollows were further examined for signs of use by black cockatoos. This included comparison to hollows from other locations which have been confirmed to be used for breeding by black cockatoos.

4 RESULTS AND DISCUSSION

No direct use of the natural hollows by black cockatoos was observed during the pre-clearing inspection in November 2021 which is consistent with monitoring between 2018 and 2020.

Secondary evidence of hollow occupancy by a bird species in the form of chew marks was observed on both natural hollows during pre-clearing and has been documented in previous monitoring surveys. The observed chew marks around the entrance appeared consistent across all three monitoring years with no fresh chew marks noted. None of the chew marks could be attributed to a bird species, as multiple species produce chew marks for a number of reasons.

While Tree 1 showed no evidence of black cockatoo activity, a Barn owl (*Tyto alba*) was observed using the hollow during the pre-clearing inspection. Tree 1 was subsequently marked and not cleared during site works.

Tree 2 was cleared on 11 November 2021. Another hollow inspection conducted by an ecologist immediately prior to clearing showed no black cockatoo activity.

A summary of the results of the hollow inspections is provided in **Table 1** below and photographs of each natural hollow are provided as **Attachment 1**.

Table 1: Summary of the natural hollow inspection results

Tree ID	Inspection results
1	<ul style="list-style-type: none"> • Chew marks were observed at the hollow entrance but could not be attributed to a species. The chew marks appeared consistent with the chew marks observed in 2018, 2019 and 2020. • Owl species observed using hollow. • Tree not cleared.
2	<ul style="list-style-type: none"> • Chew marks were observed at the hollow entrance but could not be attributed to a species. The chew marks appeared consistent with the chew marks observed in 2018. • No sign of activity. • Tree cleared.

5 CONCLUSIONS

No use of the two natural hollows by any species of black cockatoo was observed during the pre-clearing inspection or in any of the prior monitoring events between 2018 and 2020. Both hollows were noted to contain chew marks but they could not be attributed to a particular bird species.

Tree 1 was not cleared due to the presence of an owl occupying the hollow.

Tree 2 was cleared on the 11 November 2021.

6 SUMMARY AND CLOSING

We trust that this letter provides sufficient information on the hollow inspections undertaken prior to clearing in November 2021. Should you have any questions regarding the content of this letter, please do not hesitate to contact the undersigned.

Yours sincerely
Emerge Associates



Rachel Weber

SENIOR ENVIRONMENTAL CONSULTANT – TEAM LEADER ECOLOGY

Encl: Figure 1: Black Cockatoo Hollow Locations
Attachment 1: Photographs of Natural Hollows

Figures



Figure 1: Black Cockatoo Hollow Locations



Figure 1: Black Cockatoo Hollow Location

Project: Black Cockatoo Hollow Monitoring
Lot 809 Great Northern Highway, Muchea

Client: Harvis Capital Pty Ltd

Plan Number: EP17-089(26)-F86
Drawn: GAR
Date: 12/01/2021
Checked: MS
Approved: ADB
Date: 15/01/2021



0 100 200
Metres
Scale: 1:8,000@A4
GDA 1994 MGA Zone 50

emerge
ASSOCIATES

Attachment 1

Photographs of Natural Hollows



Tree ID

1

Project no.: EP17-089(26)

Tree species: *Corymbia calophylla*

No suitable hollows: 1

Signs of use: Chew marks, scat and owl present

Inspection date: 08/11/2021 (Emerge Associates)



Tree ID

2

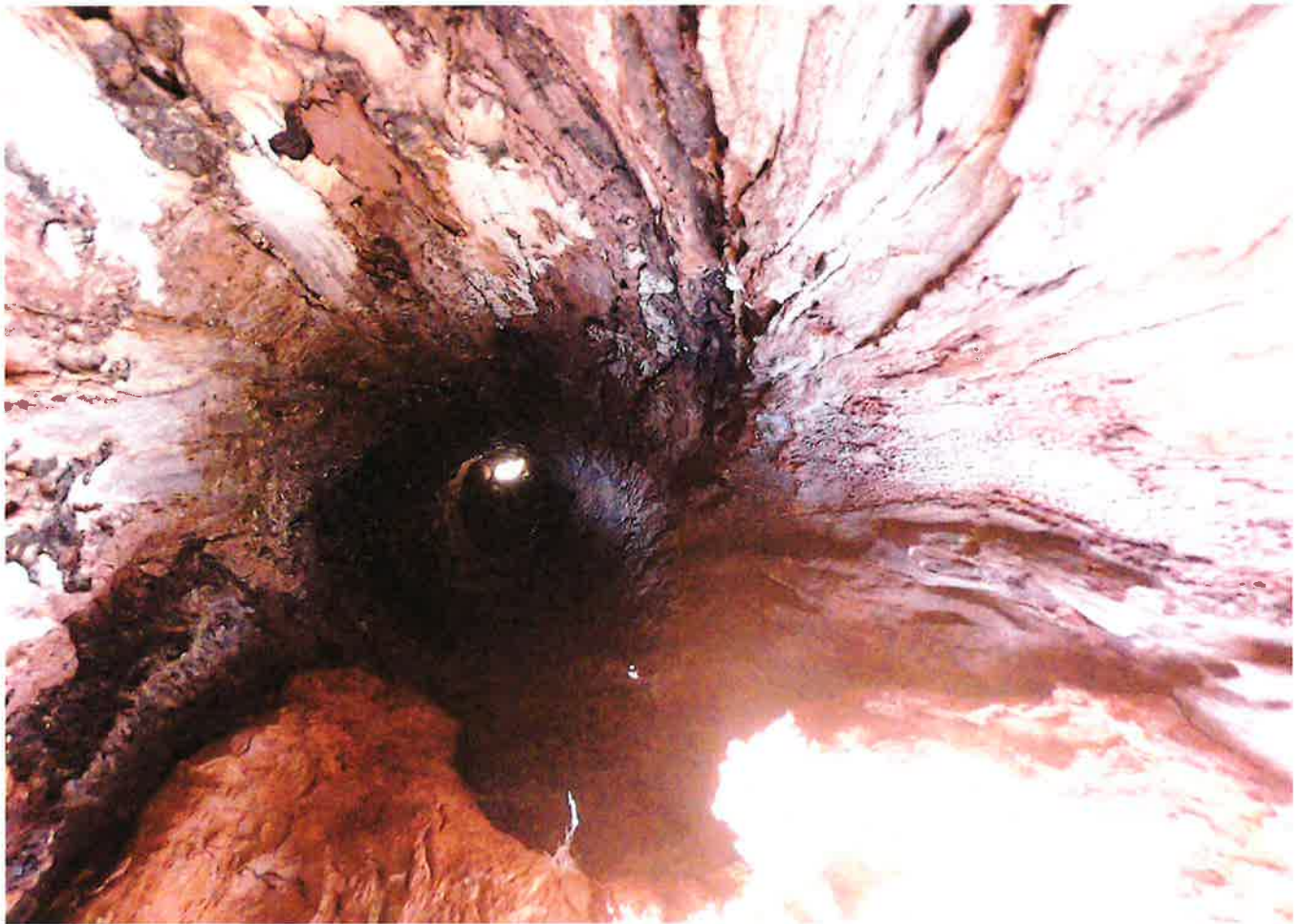
Project no.: EP17-089(26)

Tree species: *Corymbia calophylla*

No. suitable hollows: 1

Signs of use: Chew marks, duck feathers

Inspection date: 08/11/2021 (Emerge Associates)



Annexure F - Black Cockatoo Artificial Hollow Monitoring Report

Document Reference: EP17-089(26)—060 NAW

Emerge contact: Tom Atkinson

14 December 2021

PERTH OFFICE
Suite 4, 26 Railway Road
Subiaco
Western Australia 6008

P +61 8 9380 4988
F +61 8 9380 9636
emergeassociates.com.au

Emerge Environmental Services Pty Ltd ABN
57144772510 trading as Emmerge Associate

Attention: Daniel Chatley
Harvis
Level 9, 190 St George's Terrace,
PERTH WA 6000

Delivered by email to: Daniel@harvis.com.au

Dear Daniel

BLACK COCKATOO ARTIFICIAL HOLLOW MONITORING – LOT 809 GREAT NORTHERN HIGHWAY, MUCHEA

This letter provides the results of black cockatoo artificial hollow monitoring undertaken within Lot 809 Great Northern Highway in Muchea in 2021. The location of the site and the artificial hollows is shown in **Figure 1**.

1 BACKGROUND

Harvis are currently developing the Muchea Industrial Precinct which comprises Lot 809 Great Northern Highway in Muchea, Western Australia (hereafter referred to as the 'site'). Emmerge have previously undertaken multiple ecological surveys within the site and recorded habitat trees for threatened species of black cockatoo listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Implementation of the Muchea Industrial Precinct project is subject to an environmental approval issued under the EPBC Act, which was granted on 8 November 2019 (EPBC 2017/8119). The approval relates to potential impacts of the project on EPBC Act listed matters of national environmental significance (MNES), including threatened species of black cockatoo and the banksia woodland ecological community.

The approval includes multiple conditions related to trees with hollows that may be utilised by threatened species of black cockatoo as breeding habitat, including requirements to install, maintain and monitor six artificial breeding hollows within the site. The conditions relating to artificial hollows include the following:

6. *To mitigate and offset the loss of two known nesting hollows within the project area, the approval holder must install, within the conservation reserves and in accordance with artificial hollow installation guidelines, at least six artificial nesting hollows. To maximise the likelihood of the installed artificial nesting hollows being used by black cockatoos, the approval holder must:*
 - a) *install at least six artificial nesting hollows prior to the beginning of the next breeding season following the commencement of the action*
 - b) *undertake adaptive management of the artificial nesting hollows, and as a component of adaptive management, ensure that each installed artificial nesting hollow is:*

- i. *monitored and maintained in accordance with relevant artificial hollow maintenance guidelines for the life of the approval, with maintenance actions undertaken outside of the breeding season and before the commencement of the next breeding season*
- ii. *not install in a manner that requires additional clearing of black cockatoo habitat or within 10 metres of the edge of the road seals or buildings, to reduce the risk of vehicle strike and human disturbance.*
- c) *prior to clearing the known nesting hollows, have a suitably qualified ecologist undertake a hollow inspection of the known nesting hollows during the peak breeding season across three consecutive years, to confirm whether black cockatoo nesting is occurring. If a suitably qualified ecologist certifies in writing that no black cockatoo nesting occurred in any of the three consecutive years, then compliance with Condition 6d, 6e and 7 is not required.*
- d) *ensure that each installed artificial nesting hollow is inspected at least twice each year, and at least 4 weeks apart, by a suitably qualified ecologist during the peak breeding season for nine years to record any evidence of use by black cockatoos and to identify any maintenance requirements.*
- e) *not cease adaptive management of artificial nesting hollows until at least one artificial nesting hollow¹ for each known nesting hollow identified with evidence of black cockatoo nesting under Condition 6.c. has shown evidence of black cockatoo nesting, as verified in writing by a suitably qualified ecologist, for three consecutive years.*
- 7. *If, after nine years from commencement of the action, the approval holder is unable to provide the verification by a suitably qualified ecologist required under Condition 6.e., the approval holder must, within ten years after commencement of the action:*
 - a) *submit to the Minister, for approval, the details of an offset that meets the requirements of the EPBC Environment Offsets Policy and will compensate for the permanent loss of the two known nesting hollows.*
 - b) *submit to the Department a detailed assessment of the factors that caused the failure to achieve black cockatoo nesting in at least one artificial nesting hollow for each suitable nesting hollow for three consecutive years.*
- 8. *All data, enquiries and findings of the monitoring required by Condition 6 must be provided to the Department to contribute to broader research into the use of artificial nesting hollows by black cockatoos. Provision must occur within one year of the verification by a suitably qualified ecologist required under Condition 6.e. being obtained, or within 25 business days after submitting the assessment report required under Condition 7.b.*

As black cockatoos were not found to be nesting in the natural hollows during the three consecutive years prior to clearing, condition 6c, 6d, 6e and 7 are no longer required. Therefore, biannual artificial hollow monitoring (as referred to in condition 6d) is not required.

¹ *The artificial nesting hollow in use for three consecutive years need not be the same artificial nest hollow each year.*

2 SCOPE OF WORK

Emerge Associates (Emerge) were engaged by Harvis to undertake works to satisfy conditions 6bi and 8 above. Specifically, the scope of work comprised the following tasks:

- Monitor artificial hollows during the 2021 peak black cockatoo breeding season (between September and December, based on the definitions provided in the EPBC Act approval conditions).
- Documentation of the artificial hollow monitoring results.

3 METHODS

3.1 Hollow monitoring

Two ecologists from Emerge visited the site to undertake artificial hollow monitoring on 1 December 2021.

During this survey, the six artificial hollows were inspected using a pole mounted camera (GoPro). The internal hollow inspection searched for signs of hollow use such as chicks, brooding birds or chew marks on the wooden post, nesting material such as feathers and presence of birds perching at the entrance or entering the hollow.

3.2 Data analysis

Following the field survey, the photographs of the artificial hollows were further examined for signs of use by black cockatoos.

4 RESULTS AND DISCUSSION

4.1 Hollow monitoring

None of the six artificial hollows installed within the site were observed to be in use by black cockatoos or any other fauna species during the 2021 monitoring event.

Secondary evidence of bird activity in the form of chew marks that were not evident in previous monitoring surveys was noted on three of the artificial hollows during the December monitoring event. The chew marks could not be attributed to a particular bird species, as multiple species produce chew marks for a number of reasons. Photographs of each artificial hollow from each monitoring event are provided as **Attachment 1**.

All six artificial hollows were in good condition and securely installed with no maintenance required at this time.

A summary of the results of the artificial hollow monitoring is provided in **Table 1**.

Table 1: Summary of the artificial hollow monitoring results

Tree ID	Monitoring results
844B	No evidence of use by black cockatoos (or any other bird species).
845B	Chew marks were observed but could not be attributed to a species.
849B	No evidence of use by black cockatoos (or any other bird species).
850B	Chew marks were observed but could not be attributed to a species.
854B	No evidence of use by black cockatoos (or any other bird species).
855B	Chew marks were observed but could not be attributed to a species.

5 CONCLUSIONS

No active use of the artificial hollows by black cockatoos or any other fauna species was recorded during the 2021 monitoring events. Secondary evidence of bird activity in the form of chew marks was noted on three of the artificial hollows. However, the chew marks could not be attributed to a particular bird species.

All artificial hollows were in good condition with no maintenance required at this time.

Future annual monitoring of the artificial hollows would be adequate to comply with adaptive management requirements and to monitor any potential black cockatoo activity over a period of multiple years.

Summary and closing

We trust that this letter provides sufficient information on the artificial hollow monitoring in 2021. Should you have any questions regarding the content of this letter, please do not hesitate to contact the undersigned.

Yours sincerely
Emerge Associates



Tom Atkinson
PRINCIPAL ENVIRONMENTAL CONSULTANT

Encl: Figure 1: Artificial Black Cockatoo Hollow Locations
Attachment 1: Photographs of Artificial Hollow Monitoring

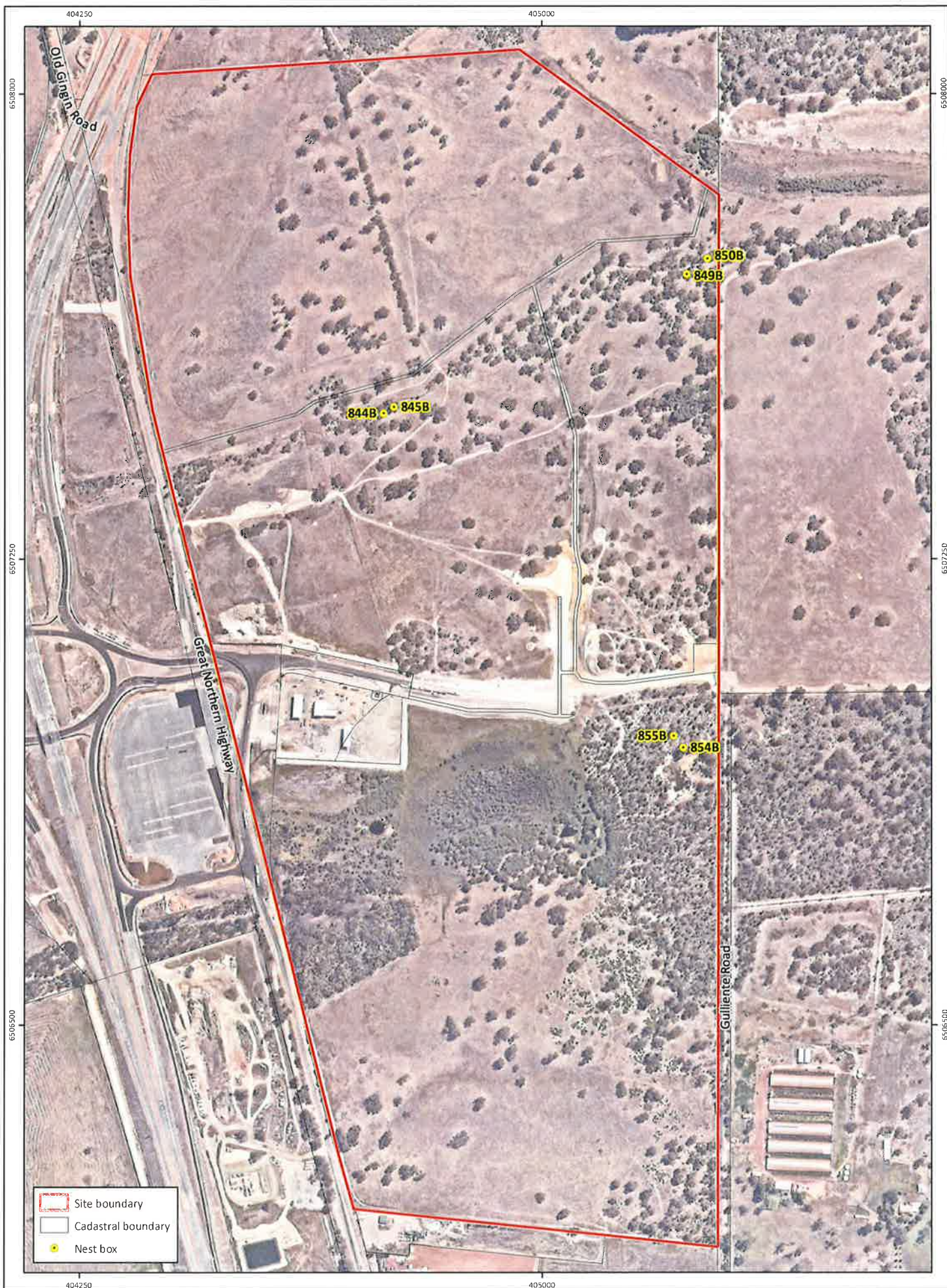


Figure 1: Black Cockatoo Nest Box Location

Project: Black Cockatoo Nest Box Monitoring
 Lot 809 Great Northern Highway, Muchea

Client: Harvis Property Pty Ltd

Plan Number: EP17-089(26)--F75
 Drawn: GAR
 Date: 29/07/2020
 Checked: MS
 Approved: TAA
 Date: 30/07/2020



0 100 200
 Metres
 Scale: 1:8,000@A4
 GDA 1994 MGA Zone 50

emerge
 ASSOCIATES

Attachment A

Photographs of Artificial Hollow Monitoring



Tree ID

844B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: None



Tree ID

845B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: Chew marks



Tree ID

849B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: None



Tree ID

850B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: Chew marks



Tree ID

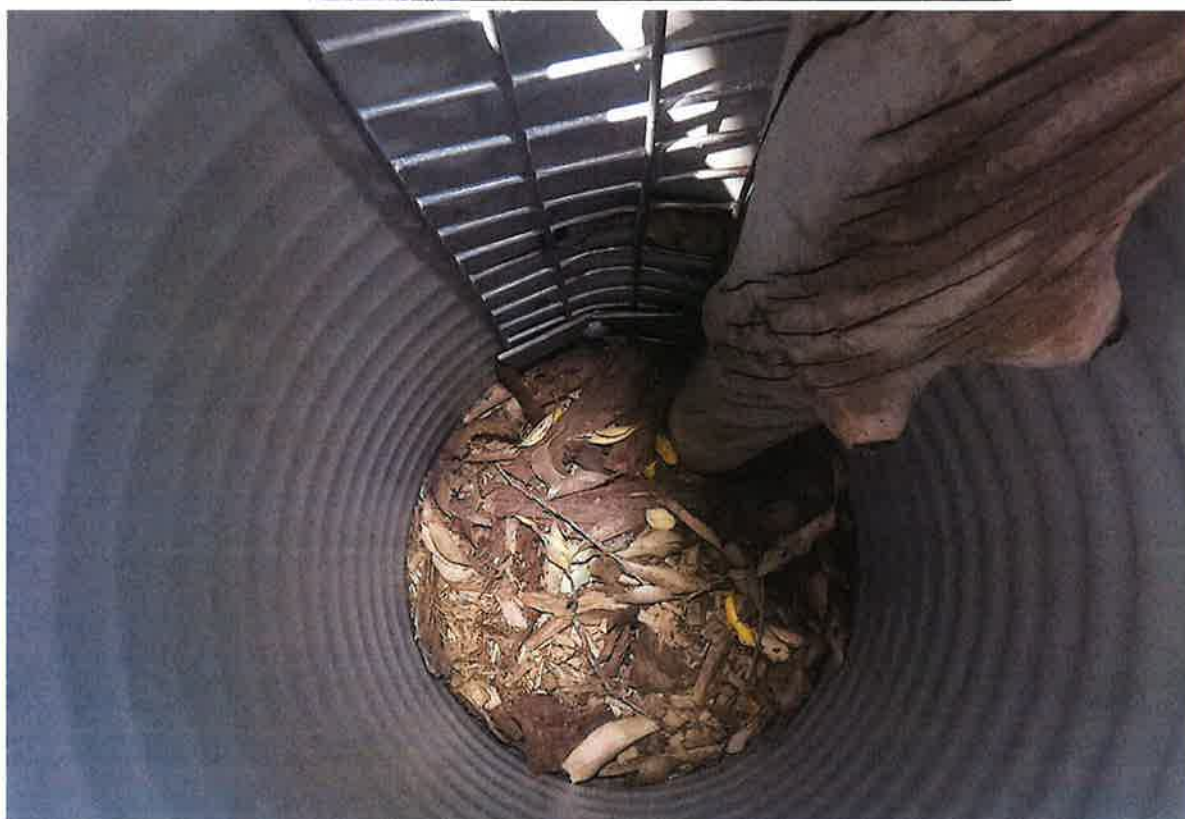
854B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: None



Tree ID

855B

Project no.: EP17-089(26)

Inspection date 1/12/2021

Occupancy: None

Signs of use: Chew marks



Annexure G - Evidence of CEMP & Compliance Report Remaining Published to Website (ongoing)

[ABOUT](#)
[MUCHEA -](#)
[NEWS](#)
[OWNER](#)
[CONTACT](#)

DOWNLOADS

Construction Environmental Management Plan 0.91 Mb

Muchea Industrial Precinct (EPBC 2017/8119)
Project No. EP17-089(19)
August 2019

EPBC 2017-8119 Muchea Industrial Park 5.72Mb

2020 Compliance Report
16th December 2019 - 16th December 2020

HARVIS

Level 9, 190 St George's Terrace, Perth WA 6000 | PO Box 7980, Cloisters Square PO, Perth WA 6850

28°C Partly sunny

 ENG
 1:47 PM
25/01/2022

Screen-shot @ 25th January 2022

www.mucelaindustrialpark.com.au/muclea/downloads

Annexure H – Table 3: Conformance with Construction Environmental Management Plan

Table3: Conformance with Construction Environmental Management Plan

Reference code	Management Action	Compliance Status	Evidence / Comment
CEMP A1	All staff and on-site personnel to be inducted on CEMP and associated management actions before commencement on-site.	Compliant	Contractor (Wormall Civil) inducted all staff and on-site personnel to all matters of the project including CEMP requirements. Note: Only a sole Wormall equipment operator was involved in the actual clearing activities during the Nov-2021 activities under the supervision of the Emerge environmental officers at all times.
CEMP B1	Local reserve boundaries to be delineated on-site using appropriate methods (e.g. star pickets and coloured tape) to avoid encroachment and unintended clearing within reserves.	Compliant	Area within Central Reserve where unintended clearing had a (low) risk to occur, was surveyed and pegged, and all retained trees pre-marked with pink tape. (ie the southern boundary of the Central Reserve 'creekline').
CEMP B2	To ensure all potential habitat trees within local reserves are retained, mark all potential habitat trees that are within the local reserve but adjacent to its boundary.	N/A	Harvis elected to retain additional trees for further investigation beyond the boundary of the central creekline reserve, and accordingly the current limit of works did not include works directly adjacent the potential habitat trees within the Central Reserve. Any potential habitat trees to be retained within the Central Reserve were well within the surveyed reserve boundary line and all retained trees pre-marked with pink tape.
CEMP B3	Where trees are proposed to be opportunistically retained within industrial development area, trees are to be marked.	Compliant	Trees proposed to be opportunistically retained were marked and currently remain. Wormall utilised Clearing Permit system with trees all trees potentially to be retained being fenced and/or marked prior to clearing. <i>See Annexure J – Wormall Clearing Permit</i> <i>See Annexure K – Identified Tree Retention Review</i>
CEMP B4	Avoid all trees marked for retention within industrial development area during earthworks and civil construction.	Compliant	No trees 'marked for retention' during works were cleared. Harvis identified additional trees to be retained for further ongoing review of potential integration into the finished developed industrial lots, with such trees all being protected and retained during Wormall's clearing works. <i>See Annexure K – Identified Tree Retention Review</i>
CEMP B5	Following the completion of earthworks and civil construction works, confirm all tree identified for retention have been retained.	N/A	Works ongoing. Trees subject to 'possible retention' are still subject to final civil design and lot delivery across the majority of the site.
CEMP C1	Fauna specialist to inspect all trees to be cleared to confirm no fauna is present.	Compliant	Works ongoing. During the current period clearing works, Emerge undertook pre-checking tree inspections of all trees for potential fauna presence, resulting in Eight (8) trees being pre-identified for either 'not to be cleared during current works' (4x trees) due to temporary presence of birds or eggs (not black cockatoos), or 'on-site review' (4x trees) for further evaluation 'on the day' of clearing. Additionally, 2x qualified Emerge environmental officers were present during clearing for collection and relocation of any additional fauna present. <i>See Annexure K – Identified Tree Retention Review (see Emerge Email)</i>

Reference code	Management Action	Compliance Status	Evidence / Comment
CEMP C2	In the instance that fauna is observed nesting in a tree, clearing is not to occur until it has been verified that the tree is no longer in use.	Compliant	As noted above, pre-clearing tree inspections identified fauna present in 8x trees. These trees were either further assessed by Emerge 'on the day' during the clearing works, or retained for the time being to be removed when appropriate at a future time when the tree can be verified to be not in use, and subsequently cleared. <i>See Annexure K – Identified Tree Retention Review (see Emerge Email)</i>
CEMP C3	Fauna specialist to be onsite during clearing works.	Compliant	As noted, 2x qualified Emerge environmental officers were present during clearing for collection and relocation of any additional fauna present. <i>See Annexure D – Email evidence of Emerge Engagement to Fauna Inspection</i>
CEMP C4	Clearing of vegetation and fauna habitat to occur in a single direction.	N/A	Clearing during the reporting period was typically of isolated/scattered trees (or clusters) as opposed to broad-scale clearing of vegetation. Emerge environmental officers were present during clearing for collection and relocation of any additional fauna present. Clearing generally occurred in a direction from west to east. <i>See Annexure D – Email evidence of Emerge Engagement to Fauna Inspection</i>
CEMP C5	If any injured fauna species are encountered the DBCA's Wild Care (08 9474 9055) is to be contacted.	N/A	No injured fauna encountered by Emerge or Contractor. <i>See Annexure D – Email evidence of Emerge Engagement to Fauna Inspection</i>
CEMP C6	Speed limit of 40 km/hr will be applied within site for all construction vehicles to reduce risk of fauna strikes and minimise dust generation.	Compliant	Wormall enforces a site-wide speed limit restriction of 15km/hr (<40km/hr required). No breaches of Wormall site vehicle speed protocols were reported.
CEMP C7	Water carts and/or surface stabilisation measures (e.g. hydro mulch) will be used to minimise dust generated from cleared areas to minimise impacts on fauna health and fauna habitat.	Compliant	Wormall's standard site-wide Dust Management Plan provides for the use of various measures including water-carts. Water-cart dust suppression was provided during installation of general civil works, and no breaches of site dust management protocols were reported. The clearing works undertaken during the current reporting period was in the form of felling of individual/clusters of paddock trees, and accordingly the broader underlying/surrounding paddock-grasses remained in place for the stabilisation and management of the topsoil. <i>See Annexure L – Extract from Dust Management Plan.</i>
CEMP D1	Install minimum 3 metre firebreak within internal boundary of local reserves to provide access for emergency vehicles and a reserve management interface.	N/A	Ongoing – Local Reserves have not yet been created for final condition/hand-over. Interim 3m fire-breaks are installed for the broader land-holding (ie within paddock edges), including along the northern-edge of the Southern Conservation Reserve (at fence line). Ongoing installation and management of firebreaks will continue to occur until such time as ease local reserve is handed-over to local authority.
CEMP D2	Inspect firebreak to monitor for any debris or vegetation growth.	Compliant	Interim land-holding fire breaks (including to yet to be handed over future conservation reserves) are maintained and monitored annually to required standards.

Reference code	Management Action	Compliance Status	Evidence / Comment
CEMP D3	Install reserve fencing to restrict public access to reserve, generally consistent with the design specification provided in Appendix B.	N/A	Works ongoing. Specifications for 'Conservation Area Fencing' included as scope for constructed work. Current period works did not finalise any further boundary interface with the reserve areas, which remain within the private balance land holdings for the time being.
CEMP D4	Inspect constructed reserve boundaries and associated fencing to monitor for damage.	Compliant	Those portions of final constructed reserve boundary fencing (adjacent Mercury Rise) that have been handed over to government are regularly inspected during fortnightly site visits. No damage has been seen to date.
CEMP D5	During periods of civil construction work adjacent to reserve boundaries, undertake reserve boundary inspections to monitor for damage and/or encroachment.	Compliant	Regularly undertaken during attendance to fortnightly site visits and during construction.
CEMP E1	Access of vehicles to be restricted to construction areas only and excluded from local reserves. To be included as part of site induction package.	Compliant	Contractor (Wormall Civil) inducted all staff and on-site personnel to all matters of the project including CEMP requirements. The works during the current reporting period did not require the contractor's staff to enter the local reserves, with works adjacent the reserve being undertaken by a single identified equipment operator.
CEMP E2	All machinery, vehicles and tools to be cleaned down before entering the site and when leaving the site. To be included as part of site induction package.	Compliant	Contractor (Wormall Civil) inducted all staff and on-site personnel to all matters of the project including CEMP requirements.
CEMP E3	Any fill brought onto site to be disease free.	NA	No fill imported into the site for works pertaining to the EPBC 2017/8119 approval area, or any of the broader construction areas during the current reporting period.

Annexure J - Wormal Clearing Permit

Wormal CIVIL Clearing Permit

Instructions: This clearing permit must be completed by the Site Supervisor or Project Manager in consultation with the person/s completing the works prior to the commencement of any clearing onsite. "Clearing" for the purpose of this permit is defined as any impact to vegetation (including Trees, shrubs and grasses).

Works Start Date	9.11.21	Works End Date	17.11.21
Project Location	MULHEA		
Project Number	1521	Date Area Inspected	
Sub-Contractor			
Plant/Equipment Used	TRACTATOR		
Reference Documents (Drawing Numbers)	6327-EW1-100 Rev B		

ALL the below hold points must be answered yes to have authorisation to start work

1	Have the areas to be cleared been positively identified by survey in accordance with client/consultant directions? Has the Consulting Engineer given clear instruction as to which flora is to be retained and/or removed?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
2	Have the no-go zones and/or protected areas been identified and zoned with appropriate fencing and signage?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
3	Has the Site Supervisor and actual staff to be engaged in clearing along with the Consulting Engineer, walked the site to establish the exact location/s and boundaries of areas to be protected and those that are to be cleared?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
4	Does the person/s completing the work have a marked up (highlighted) plan clearly showing the extent of work, including any exclusion zones, services etc	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
5	Any existing services have clearly been flagged off and highlighted on the clearing plan. All workers are aware of any existing services (presence of any services requires a Ground Penetration Permit to be completed)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
6	Has the Project Manager undertaken a pre-clearing inspection?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:
7	Has a SWMS been completed and in place for the clearing activity?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Comments:

Person conducting the clearing operation

Name			
Position	OT	Date	9.11.21

Site Supervisor or Project Manager approving the works to commence

Name			
Position	Supervisor	Date	9.11.21

A copy of the approved permit shall be kept in the site office attached to the relevant SWMS

(SF-C267) Clearing Permit

23/08/2019

Annexure K - Identified Tree Retention Review

Emerge Pre-Clearing Review for Tree Retention and Adjustment to Clearing Works:



Tue 9/11/2021 9:34 AM

Andreas Biddiscombe <Andreas.Biddiscombe@emergeassociates.com.au>

Muchea Industrial Park - Pre-clearing fauna inspection

To Daniel Chatley; James Boggan; Paul Jenkyn; Samuel Jeanes

Cc Melanie Schubert; Nick Watson; Tom Atkinson



6327-EW1-100_B_EmergeMarkup.pdf
7 MB

Hi all

Emerge completed pre-clearing fauna checks yesterday (8/11/21) of the trees proposed for clearing from today onward. No black cockatoos were observed utilising either of the two suitable nesting hollows (as identified on the EPBC Act approval).

However, there were eight trees with some fauna activity observed. These are shown on the attached markup and can be split into two groups as follows:

- Four trees which containing hollows currently actively in use. Three hollows contained eggs and one hollow contained an owl. These trees are marked **yellow** on the attached and **ARE NOT TO BE CLEARED** as part of these clearing works.
- Four trees which had some evidence of previous use or general activity observed around the tree (but no in hollows). These trees are marked **blue** on the attached and are to be reinspected by Emerge fauna spotter on day of clearing and only cleared if Emerge give the all-clear.

All eight of these trees have been marked onsite with flagging tape.

All remaining red trees within the clearing footprint were inspected yesterday and no fauna presence was observed, so therefore they are okay to be cleared from today (under supervision of fauna spotter). Generally speaking, machinery should remain 15 m away from trees which are not to be cleared, unless access in this zone is specifically required to remove a red tree to be cleared and it can be done in a safe manner which doesn't impact the retained tree.

Please note Melanie Schubert and Nick Watson from Emerge will be onsite today to provide fauna spotting services. They will also be completed artificial hollow inspections in the northern conservation/drainage corridor when clearing is not being undertaken.

Any queries please call.

Kind regards
Andreas



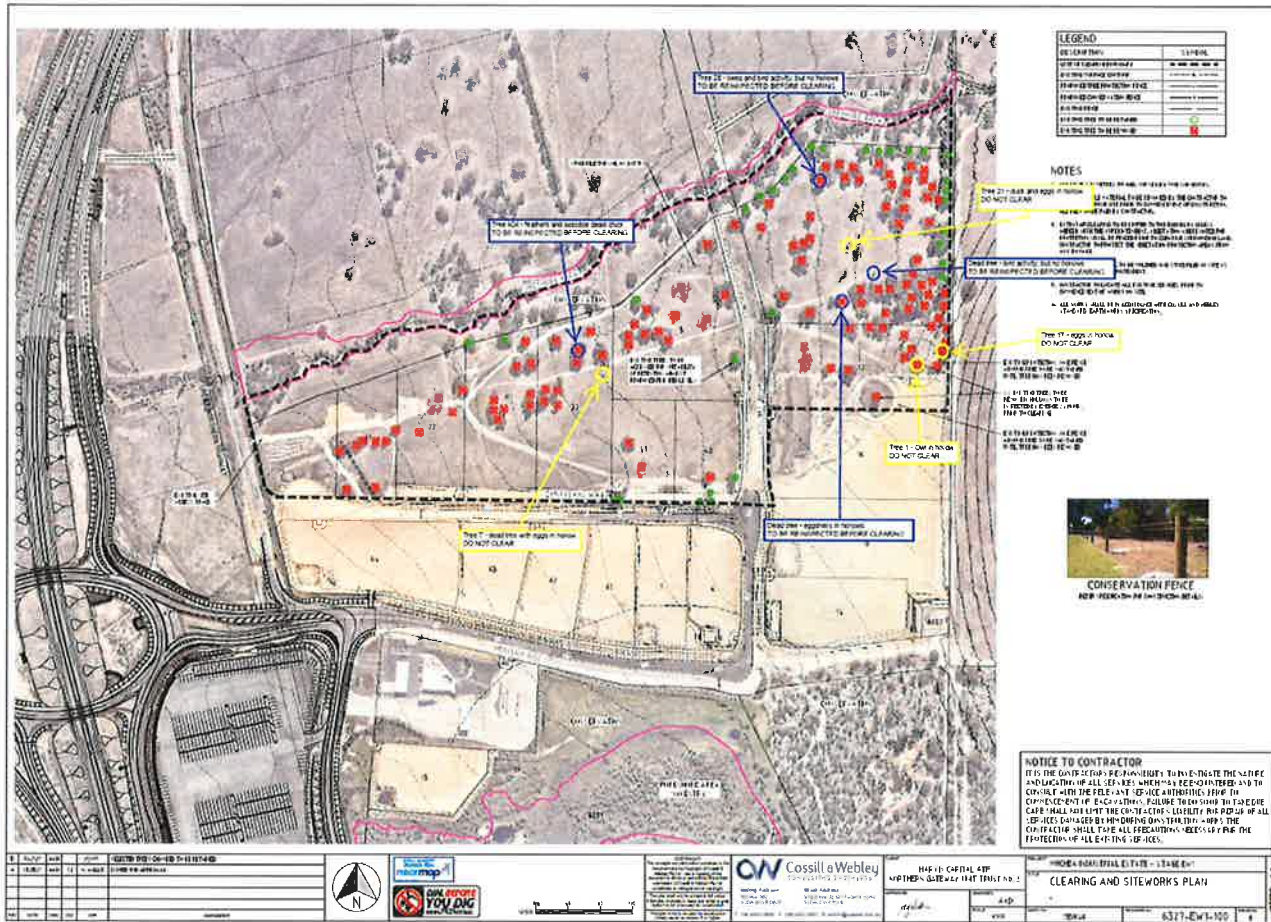
Andreas Biddiscombe

Senior Environmental Consultant - Environmental Planning & Management

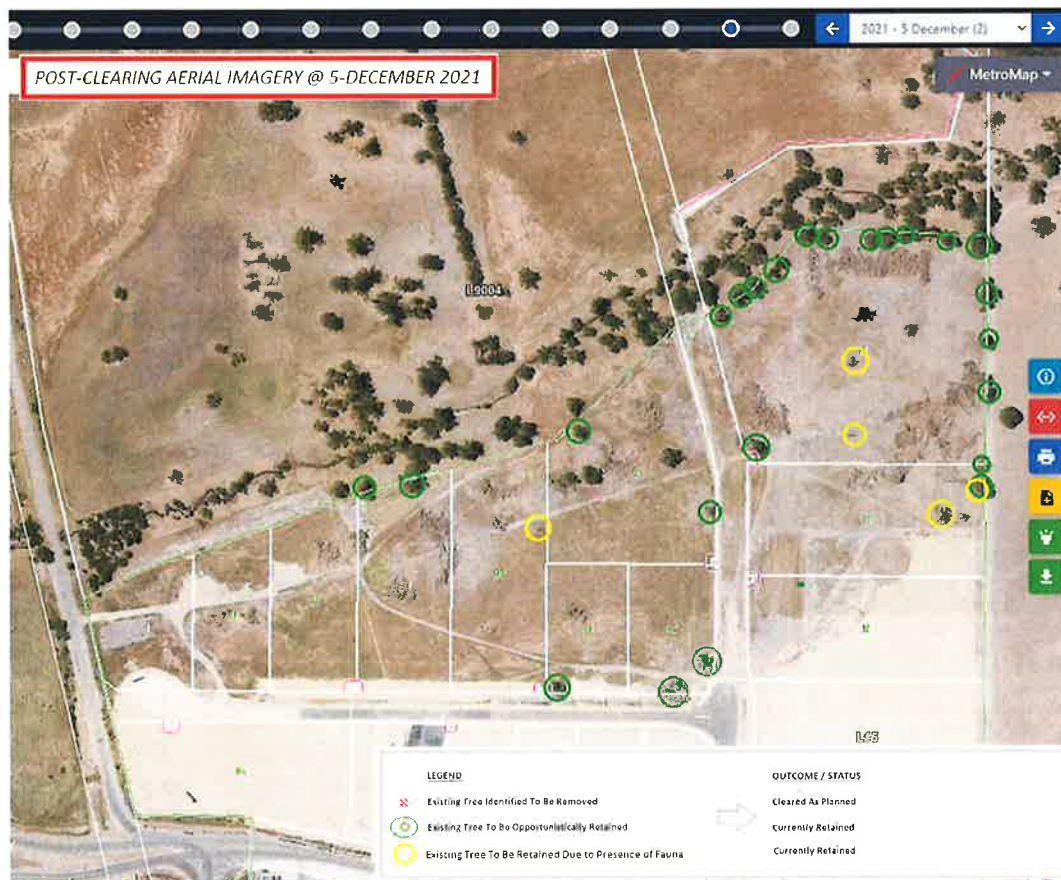
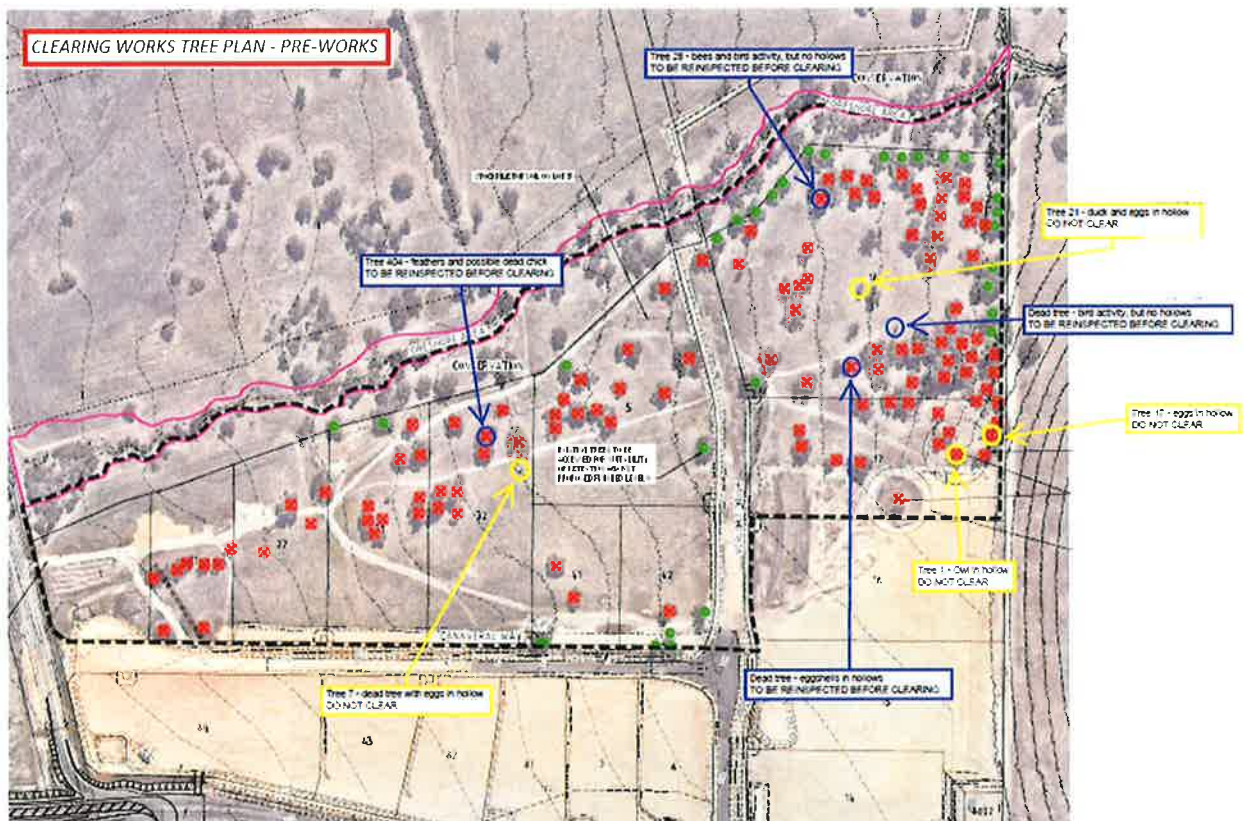
✉ Andreas.Biddiscombe@emergeassociates.com.au

Suite 4, 26 Railway Road, Subiaco WA 6008

www.emergeassociates.com.au // t +61 8 9380 4988



Review of Pre-Clearing Plan and Post-Clearing Tree Retention:



Annexure L - Extract from Wormald Dust Management Policy

18.3 Dust

Dust may be generated by wind, vehicle movements, earthworks, stockpiling and a multitude of other construction activities. Controls shall be implemented which may include:

- Areas of land cleared and the period they remain cleared to be kept to a minimum. Stabilization of cleared areas that are not directly subjected to earthworks will occur promptly.
- Managing and limiting the number of stockpiles and minimizing the time stockpiles are exposed. Keeping topsoil and under-burden stockpiles separate.
- Ensuring stockpiles and batters are designed with slopes no greater than 2:1 (horizontal: vertical)
- Stabilizing of the site will be done upon completion of the earthworks stage and at completion of the project.
- Vehicle paths restricted to well defined, dedicated routes. Plant and vehicles are not to use random routes. Plant will use delineated routes as far as practicable when undertaking specific tasks in each area.
- Appropriate number of water carts allocated to project maintaining site in a damp condition. (Water carts having no less than 10,000-liter capacity per 5 hectares of disturbed site.)
- Site entries and surrounding streets will be swept on a regular basis.
- Regular monitoring of Bureau of Meteorology weather forecasts to consider predicted conditions that may present an increased risk to site operations and potential for dust generation off the site. Appropriate contingency measures to be put in place including the cessation of works that may contribute to increased dust emissions off site during adverse weather/wind conditions. Preventative measures may also be required to be put in place outside of normal working hours.
- No burning off is to occur. All vegetation is to be mulched and re-used on site where possible.
- Any communications generated due to dust will be directed to the project team and recorded on the Project Communication Register. Stabilisation will occur as soon as practicable or within 18 hours.
- Wind fencing shall be stored at Wormald Civils' yard (17 Cardup Siding Road, Cardup) and will be made available for the engineer and on site with 4 hours' notice.

Any exposed surfaces shall be watered regularly, particularly during activities which have the potential to generate high dust levels. If dust levels are deemed to be too high, work will cease until dust levels have decreased or have been controlled.

18.4 Stockpiling of Soil

The stockpiling of soil within the site boundaries until such a time as its use as backfill or removal is undertaken will require one or more of the following:

- Stockpiles shall be watered to prevent dust;
- The angle of the stockpile should not permit riling of the material into an active work area;
- Housekeeping to allow safe and unobstructed access and movement in and around stockpiles adjacent to the excavations;
- Safe routes shall be established for personnel to enter and exit excavations;
- Stockpiles should not be placed near overhead power lines or other overhead obstructions;
- Stockpiles should not be placed over underground services; and
- Stockpiles should not be placed where they can obstruct traffic or pedestrians.
- Where soil is identified as being Contaminated then the soil shall be stockpiled and treated separately in accordance and management plans put in place accordingly.

Soil that is excavated and is not intended to be re-used shall be hauled from site to prevent dust being generated inside and external to the Project.