



The Heights

11 November 2017 – 10 November 2018 Annual Compliance Report

Nambucca Crescent Residential Development
Year 2 (EPBC 2014/7190)

Prepared for Sunland Group Project Management Pty Ltd
7 February 2019

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Sunland Group

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Acronyms and Abbreviations

ACR	Annual Compliance Report
CGC	Council of the City of Gold Coast
DAM	Declared Area Map
DEE	Department of the Environment and Energy (Cth); the Department
DES	Department of Environment and Science (Qld) (formally the Department of Environment and Heritage Protection)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
ha	hectares
kilometres	km
m	metres
NRME	Department of Nature Resources, and Mines and Energy (Qld)
PMAV	Property Map of Assessable Vegetation
QTFN	Queensland Trust for Nature
SHG	Saunders Havill Group
square metres	sqm
TMR	Department of Transport and Main Roads (Qld)
TWC	Tomewin Wildlife Consultancy
VMA	<i>Vegetation Management Act 1999</i> (Qld)
WHIMP	Wildlife Habitat Impact Mitigation Plan
WPMP	Wildlife Protection Management Plan
KMP	Koala Management Plan, prepared by Saunders Havill Group, dated October 2016.
Stage 1 OAMR	Koala Crossing Offset Area Management Report EPBC 2014/7190, 569 Mt Flinders Road Peak Crossings, Year 2, prepared by Queensland Trust for Nature, dated February 2019.
Stage 1b OAMP	Offset Area Management Plan -Stage 1b; EPBC 2014/7190, prepared by Queensland Trust for Nature, Dated 23 May 2018.
Year 1 ACR	The Heights 11 November 2016 – 10 November 2017 Annual Compliance Report, Nambucca Crescent Residential Development - Year 1 (EPBC 2014/7190), prepared by Saunders Havill Group Pty Ltd for Sunland Group Project Management Pty Ltd, dated 8 February 2018.

1. Introduction

This Annual Compliance Report (ACR) Year 2 (11 November 2017 – 10 November 2018) has been prepared on behalf of Sunland Group Project Management Pty Ltd (the Proponent) for the Nambucca Crescent Residential Development (EPBC 2014/7190), now known as 'The Heights' (the Project).

In accordance with the approval granted on the 25th October 2016 under the *Environmental Protection and Biodiversity Act 1999* (EPBC Act), this ACR has been prepared in response to Condition 9 which states:

"Within three months of the anniversary of every 12 month anniversary of the commencement of the action, the approval holder must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in their conditions."

1.1. Reporting Period

This ACR details the status and compliance of the Project for the 12 month reporting between the 11th November 2017 to 10th November 2018.

The ACR must be published on the Proponent's website and notification provided to the Department of the Environment and Energy (the Department) within 3 months of the 12 month anniversary of the commencement of the action.

1.2. EPBC Approval

Sunland Group Project Management Pty Ltd (Sunland), as the Proponent of the Project (EPBC Act Referral 2014/7190) was issued with an Approval by the Department of the Environment and Energy (the Department) on the 25th October 2016, subject to conditions. A variation was made to this approval and approved by the delegate of the Minister on the 12th July 2018. Key details related to EPBC 2014/7190 approval, including variation conditions, are provided in Table 1 below.

Table 1: Approval Details

Commonwealth Reference	EPBC 2014/7190
Approval Holder	Sunland Group Project Management Pty Ltd
ACN	109 074 820
Project Name on the Approval	Nambucca Crescent Residential Development, Pimpama, QLD
Approved Action	To subdivide and develop for residential development approximately 85 ha of land at Rifle Range Road approximately 22 kilometres north-west of Surfaces Paradise, Pimpama, Queensland.
Controlling Provision(s)	Listed threatened species and communities (sections 18 & 18A)
Approval Date	25 October 2016
Variation to Conditions of Approval Date	12 July 2018
Expiry Date of the Approval	1 August 2026
Date of Commencement of the Action	11 November 2016
Address	Rifle Range Road, Pimpama
Local Government Area	City of the Gold Coast (CGC)

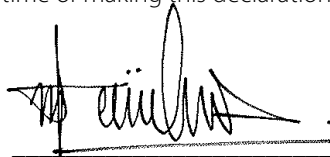
1.3. Site Context

Contextually, the Project is located in South East Queensland, approximately 35 km north of the Gold Coast and 50 km south of Brisbane. The Project is surrounded by a mix of land uses, including low density residential developments to the north and south and rural residential allotments to the west. The eastern boundary adjoins the Pacific Motorway. Refer to Figure 1 for the site context.

1.4. Declaration of Accuracy

This declaration has been signed by the approval holder.

In making this declaration, I am aware that sections 490 and 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) make it an offence in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.



Signed

Full name (please print)

Murray Saunders

Position (please print)

Managing Director

Organisation (please print including ABN/ACN if applicable) Saunders Havill Group ABN 24 144 972 949

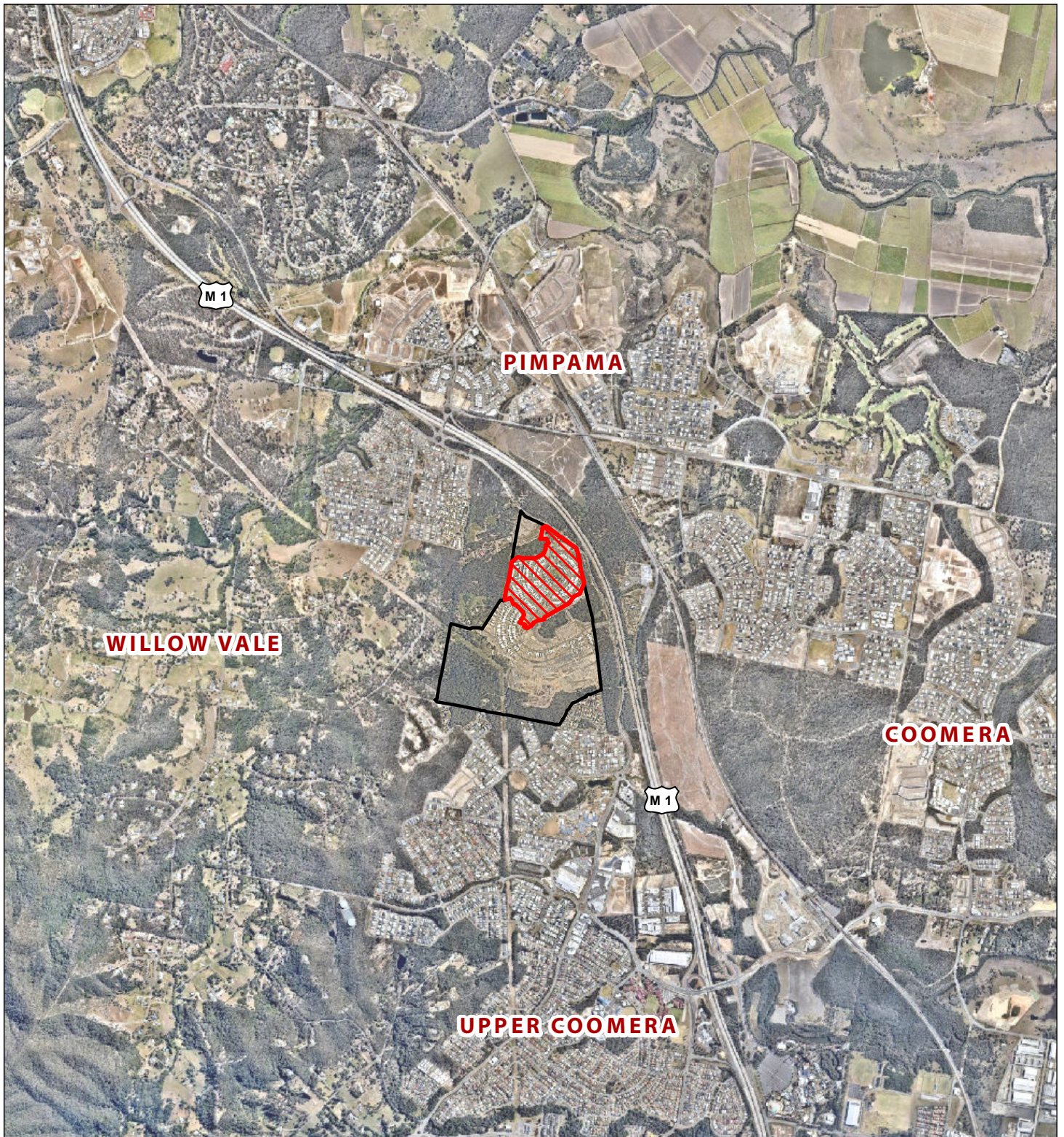
Date

08 / 02 / 2019

1.5. Overview of Key Activities and Achievements

During Year 2 of construction and compliance reporting, numerous development and environmental management activities have commenced including:

- An approved variation to EPBC Act 2014/7190 approval conditions to include a Stage 1b Offset and variation to Condition 5, addition of Condition 6A and variation to definitions.
- Legally securing the Stage 1b Offset via a Voluntary Declaration administered under the *Vegetation Management Act 1999* (VMA)
- Reporting and monitoring for the Stage 1 Offset
- Baseline reporting and monitoring for the Stage 1b Offset
- Vegetation clearing and bulk earthworks over Precincts B and C of the project
- Pre-clearance and post-clearing surveys and reports
- Temporary management infrastructure (e.g. fauna fencing, signage)
- Creating land titles
- Establishment of covenants / sales contacts
- House and road construction in Precinct A and parts of Precinct B of the project
- Installation of permanent Koala exclusion fencing at Precinct A and Parts of Precinct B of the project



Legend



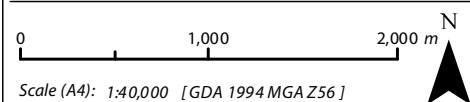
-  Referral area
-  Area excised from Referral

Figure 1
Site Context

File ref. 7341 E Figure 1 Context B
Date 7/02/2019
Project Rifle Range Rd, Pimpama (Lot 10 on SP296357)



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2. Current Status of the Project

2.1. Stage 1 Offset

2.1.1 Year 2 Offset Reporting

As required by the EPBC Act approval conditions, QTFN have prepared a progress report for Year 2 of the Stage 1 Offset delivery titled, 'Koala Crossing Offset Area Management Report EPBC 2014/7190, 569 Mt Flinders Road Peak Crossings, Year 2, February 2019' (refer Appendix A for a copy of the Stage 1 OAMP). The report provides details on the koala population, food availability, weeds and pathogens, the impact of feral animals, fire management and other threats relative to the 38.33 ha Stage 1 Offset area. Key actions undertaken and reported on over the Year 2 period included:

- Monitoring of Koala populations through scat assessments and observations as well as camera trapping (4 x camera traps).
- Monitoring of Koala health.
- Monitoring of fire breaks and controls lines at a monthly frequency.
- Monitoring of dogs, foxes and cats using remote sensing wildlife cameras.
- Opportunistic monitoring of koala and predator interactions.
- Weed treatment (specifically Lantana management)

Key findings included:

- Camera trapping showed Relative Activity Index (RAI) increased (Year 1 = 0, Year 2 = 2.5).
- Fresh Koala scats were recorded as part of baseline surveys.
- The target weed species identified as a threatening process to Koala food trees is *Lantana camara*.
- Foxes and a cat were recorded in the Stage 1 Offset Area. RAI for pests has increased and a pest management contractor was engaged.
- No vehicle strikes were recorded on or near the property.
- No hydrological changes.
- Two (2) Koalas were recorded with cases of chlamydia in Year 1. No new cases have been recorded.
- One (1) new (untagged) Koala has been recorded on the offset site.

Compliance is detailed further in Section 3.

2.2. Variation to the EPBC Approval

On the 4th June 2018, SHG on behalf of the Proponent, made a request for a variation to the conditions of the EPBC approval 2014/7190 (dated 25th October 2016) under section 143(1)(c) of the EPBC Act.

The delegate of the Minister approved the variation of the 12th July 2018 which involved a variation to Condition 5, addition of Condition 6A, variation of the definition of Offset attributes and addition of Annexure 4 to allow for increased clearing of Koala habitat prior to Stage 2 offsets being legally secured by requiring an additional Stage 1b Offset. A copy of the variation approval with the superseded and current conditions tabulated is included in Appendix B. This assessment addresses compliance with the approval conditions in force at the time of the two-year anniversary.

The Stage 1b Offset adjoins the existing Stage 1 Offset area and is delivered by the same third party offset provider, Queensland Trust for Nature (QTFN). On approval of the variation, the delegate to the Minister also adopted the 'Offset Area Management Plan -Stage 1b; EPBC 2014/7190; 23 May 2018' (Stage 1b OAMP). The Stage 1b OAMP has been implemented by the Proponent.

2.2.1 Stage 1b Offset Legally Secured

As required by Condition 5aa of the EPBC Act approval (refer Table 3 below for further detail), the Stage 1b Offset, which is located over parts of Lot 119 on CH311527, Mt Flinders Road, Peak Crossing, was legally secured via a Voluntary Declaration under the *Vegetation Management Act 1999* (VMA) by the Proponent (refer to Appendix C). The Chief Executive of the Queensland Department of Natural Resources, Mines and Energy (NRME)¹ declared the Stage 1b Offset area in a Declared Area Map (DAM 2018/004740) as an area of high nature conservation value in accordance with section 19F(1)(b) of the VMA. The Stage 1b Offset is shown as Category A on a Property Map of Assessable Vegetation (PMAV) (PMAV 2018/004741) and is subject to management provisions of the Stage 1b OAMP.

A deed was signed by both the Proponent and third party offset provider, QTFN who are the trustees of the Stage 1b Offset land. Under this deed, QTFN are to carry out management of the Stage 1b Offset in accordance with the Stage 1b OAMP.

2.3. Vegetation Clearing and Civil Construction

The Project has progressed through vegetation clearing and bulk earthworks stages over the northern and central portions of the site. All vegetation clearing and civil construction works have been completed in Precincts A and Precincts B1. Precinct B2 is in various stages of civil construction while vegetation clearing occurred in Precinct C1 and C2 in August 2018. Appendix D provides a summary of vegetation clearing with respect to critical habitat over a contemporary aerial.

During this ACR, it was identified that through detailed design rectified by final earthworks requirements, the approved lot layout in Precinct C has resulted in clearing (0.01ha) within southern conservation corridor (i.e. Stage 2 Offset) as shown in Annexure 1 of the EPBC 2014/7190 approval. This discrepancy has been identified through GIS overlay of aerial imagery and the plan in Annexure 1 of the approval. Under the EPBC approval the Stage 2 offset means, '25.5 ha of land, set to be retained onside and managed to address residual impacts upon the Koala, as defined as 'vegetation retention area' in Annexure a which includes 23.6ha of critical habitat for the Koala'. At the time of writing this Year 2 ACR more than 25.5 ha of land, including more than 23.6 ha of critical habitat remains within the project site. Clearing requirements, prior to securing the Stage 2 offset are also compliant (as discussed in Table 3).

2.4. KMP Compliance

Requirements of the EPBC 2014/7190 approval included implementation of the 'Koala Management Plan, prepared by Saunders Havill Group, October 2016' (KMP). Compliance with the KMP included education of all site contractors on the procedures and requirements for Koala management as well as monthly reporting by the Civil Contractor through the KMP Compliance Checklist. Provisions of the KMP also included the appointment of a Department of Environment and Science (DES)² registered Fauna Spotter Catcher to prepare pre and post clearing reports and be present on site during all clearing activities.

For all clearing stages, the appointed Civil Contractor ensured the following were completed:

- Induction and Toolbox Talks outlining the KMP requirements to ensure all site personnel were aware of ecological sensitives and KMP protocols.
- Clearing pre-start meeting with all relevant parties.
- Contractor and sub-contractor Safe Work Methods Statements (SWMS) referenced the KMP.

¹ Formally the Queensland Department of Natural Resources and Mines (NRM)

² Formally the Queensland Department of Environment and Heritage Protection (EHP)

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- KMP Compliance Checklist.

Compliance with the KMP is discussed further in Appendix E.

With respect to Koalas and the Project, the following has been noted:

- No injury or mortality to Koalas has been recorded on site.
- No Koalas were recorded during pre-clearance surveys or post-clearing reporting.
- Temporary exclusion fencing has been installed around all construction areas (prior to clearing and maintained during construction operations).
- No dogs occupy construction areas of the Project site.
- Permanent Koala exclusion fences have been installed around Precinct A (Stage 7A and Stage 4).

2.5. Key Consultants and Roles

Table 2 below is a list of the key appointed contractors and their roles in the Project.

Table 2: Key Consultants and Roles

Role	Appointed Contractor
Project Engineer / Site Coordinator	Bradlees
Civil Contractor / Site Supervisor	Golding Contractors
Project Town Planner	RPS Group
Environmental Coordinator	Element Ecology
Fauna Spotter Catcher	Tomewin Wildlife Consultancy
Landscape Architect	Form Landscape Architects
Project Arborist	The Tree Advisory Centre

3. EPBC Conditions and Compliance

Table 3 documents the compliance with EPBC Act conditions for the Project for the Year 2 reporting period, being 11 November 2017 to the 10 November 2018. The compliance assessment relates to the approval conditions in force at the time of the two-year anniversary.

Table 3: Compliance Audit of EPBC 2014/7190 Conditions for The Heights

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
1	The approval holder must not clear more than 30 hectares of koala habitat. Impacts to koala habitat must be limited to the project site.	Compliant	<p>Measured clearing area of critical habitat= 25.1ha</p> <p>Refer to Appendix D which shows the clearing extent of Koala habitat for the Project during the reporting period. Impacts to Koala habitat were limited to the Project site.</p>
2	To minimise adverse impacts to koalas from clearing and construction there must be no koala injury or mortality as a result of clearing and construction at the project site.	Compliant	<p>No injury or mortality to Koalas occurred as a result of clearing and construction during the reporting period.</p> <p>Sunland appointed DES accredited Fauna Spotter Catcher Tomewin Wildlife Consultancy (TWC) to undertake all fauna spotter work as per Commonwealth, State and Local Government approvals. As per requirements of the EPBC Act approval and KMP, all pre and post clearing fauna spotter catcher reports have been published on Sunland’s website <https://the-heights.com.au/koala-management.html>. These reports state that no injury or mortality to Koalas occurred during clearing.</p> <p>Also, as required by the KMP, the appointed Civil Contractor, Golding, maintained records of site activities. Compliance with the KMP was documented by the Contractor through the KMP Compliance Checklist, which was completed at the start of each month for the month prior. KMP Compliance Checklists for the reporting period are provided in</p>

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
3	<p>To minimise adverse impacts to koalas from clearing, construction and residential activity the approval holder must install and maintain for the duration of this approval:</p> <ul style="list-style-type: none"> a. Koala safe infrastructure and traffic calming measures at the project site as outlined in the Koala Management Plan consistent with the Koala Sensitive Design Guidelines, the Wildlife Signage Guidelines and the Fauna Sensitive Road Design Guidelines. b. Koala exclusion fencing consistent with the Koala Sensitive Design Guidelines, located as per Annexure 1. <p>The koala exclusion fencing must be installed following completion of clearing, earthworks and civil works with residential blocks that are adjacent to the location of the koala exclusion fencing prior to commencement of housing construction.</p>	Compliant	<p>Appendix E – Attachment 1. Item A1 of the checklist relates to ‘injury or mortality to Koala’. Completed checklists shown that no injury or mortality occurred during construction for the reporting period. Further, responses to Item A7 shows that no Koalas were sighted over the referral area during the reporting period.</p> <p>To minimise adverse impacts to Koalas from clearing, construction and operational actions, the Proponent has ensured all activities were undertaken in accordance with the KMP which was prepared in collaboration with the Department’s approvals and post approvals teams. Compliance with management roles and responsibilities in Table 6 of the KMP is detailed in Appendix E.</p> <p>With respect to item 3a, the western entry road has been constructed in accordance with the KMP and Koala Sensitive Design Guidelines, Wildlife Signage Guides and Fauna Sensitive Road Design Guidelines. Compliance with this condition, including photographic evidence, is provided in Appendix E.</p> <p>With respect to item 3b, Koala exclusion fencing is in the process of being installed as required by the KMP at locations adjacent to Precinct A and parts of Precinct B where in operational phase (refer to Appendix E – Attachment 3 for further detail). This Koala exclusion fencing detail has been designed in collaboration with City of Gold Coast and has been installed throughout existing developments in the Gold Coast area.</p>
4	<p>For the better protection of the koala the approval holder must implement the Koala Management Plan. All activities in the project site must be undertaken in accordance with the Koala Management Plan.</p>	Compliant	<p>All activities associated with the Project have been undertaken in accordance with the management outcomes of the KMP. Compliance assessment against management measures in the KMP are presented in Table 6 Appendix E.</p>
5	<p>To offset residual significant impacts to the koala the approval holder must:</p> <ul style="list-style-type: none"> a. Secure the Stage 1 Offset prior to the commencement of the action. 	5a: Compliant 5aa. Non-Compliant (Administrative)	<p>In response to Condition 5a, the Stage 1 Offset was legally secured prior to the commencement of the action and was documented in the Year 1 ACR.</p>

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
	<ul style="list-style-type: none"> aa. Secure the Stage 1b Offset prior to clearing more than 20.5 ha of Koala habitat within the project site. b. Secure the Stage 2 Offset prior to clearing more than 25.1 ha of koala habitat within the project site. c. Provide the Department with the offset attributes, shapefile and map(s) clearing defining the location and boundaries of each offset, within 2 weeks of lodgement of the offsets with the Titles Office. d. Ensure the agreement is registered on the tile on which each offset is located, and provide the Department with a signed copy of the agreement and evidence of lodgement with the Tiles Office within 2 weeks of lodgement. e. Implement the Koala Crossing Fire Management Plan when the Stage 1 Offset is secured. 	5b: Not-Applicable 5c: Compliant 5d: Compliant 5e: Compliant	<p>In response to Condition 5aa, by way of deed, Sunland and third party offset provider Queensland Trust for Nature, legally secured the Stage 1b Offset via a Voluntary Declaration under the <i>Vegetation Management Act 1999</i> on the 8th August 2018 (refer Appendix C). The condition required this offset to be legally secured prior to the clearing of more than 20.5 ha, however as detailed in the Year 1 ACR, 21.08 ha had been cleared during the first 12 months of the project. This non-compliance was addressed in the Year 1 ACR. Measured clearing is compliant with the varied EPBC approval conditions, in that the clearing threshold prior to securing the Stage 2 offset (i.e. 20.5 ha) has not been exceeded. This non-compliance is further discussed in Section 4.</p> <p>In response to Condition 5b, the measured clearing during this reporting period is 25.1 ha of koala habitat. This clearing is the maximum allowed prior to triggering the requirement to legally secure the Stage 2 offset.</p> <p>In response to Conditions 5c and 5d, the Department was provided with the Stage 1 Offset attributes, shapefiles and maps for the Voluntary Declaration on the 10th November 2016 as reported in the Year 1 ACR. The Department was provided with the Stage 1b Offset attributes, shapefiles and maps for the Voluntary Declaration on 9th August 2018 (refer Appendix C).</p> <p>In response to Condition 5e, Section 3.8 of the 'Koala Crossing Offset Area Management Report EPBC 2014/7190, 598 Mt Flinders Road Peak Crossing, Year 2' prepared by QTFN (Stage 1 Offset OAMR) and provided as Appendix A, provides evidence of implementation of the management outcomes of the Koala Crossing Fire Management Plan.</p>
6	To offset residual significant impacts to the koala the approval holder must implement the Offset Area Management Plan. All activities at the Stage 1 Offset must be undertaken in accordance with the Offset Area Management Plan.	Compliant	QTFN have implemented activities in accordance with the Offset Area Management Plan within 6 months of securing the Stage 1 Offset, with monitoring activities commencing in November 2017 for the Year 2

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
	<p>The Offset Area Management Plan must be implemented within 6 months of the date of the Stage 1 Offset is secured. All activities at the Stage 1 Offset must be undertaken in accordance with the Offset Area Management Plan.</p>		<p>(2017/2018) reporting period. The Stage 1 Offset OAMR provided as Appendix A, provides evidence of implementation of the management outcomes of the Stage 1 Offset Area Management Plan for Year 2.</p>
6A	<p>The offset the residual significant impacts to the Koala, the approval holder must implement the Offset Area Management Plan (Stage 1b). All activities at the Stage 1b Offset must be undertaken in accordance with the Offset Area Management Plan (Stage 1b).</p>	Compliant	<p>QTFN have implemented activities in accordance with the Offset Area Management Plan (Stage 1b), with monitoring activities commencing from August 2018 for the reporting period. A Stage 1b Offset Compliance Summary letter from QTFN is included in Appendix A and provides evidence of implementation of the management outcomes of the Offset Area Management Plan (Stage 1b) for this reporting period.</p>
7	<p>The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department of 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 be also publicised through general media.</p>	Compliant	<p>All records substantiating all activities associated with or relevant to the conditions of approval are maintained by the Proponent. If required by the Minister, these records can be made available to allow a third party audit of the Project.</p>
8	<p>Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by and agreed to 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.</p>	Not applicable	<p>A request for an independent audit of the Project was not made by the Minister during the reporting period.</p>
9	<p>Any potential or suspected non-compliance with these conditions of approval must be reported to the Department in writing within 48 hours of the approval holder becoming aware of the potential or suspected non-compliance. Within three months of every 12 month anniversary of the commencement of the action, the approval holder must publish a report on their website addressing compliance with each of these conditions of this approval, including implementation of any management plans as specified by the conditions.</p>	Non-Compliant	<p>One non-compliance occurred during this reporting period and became known as part of completing this ACR (refer condition 5aa). This ACR is the reporting to the Department of the non-compliance and it is acknowledged that the notification timeframe is in excess of 48 hours of becoming aware of the non-compliance, as stipulated in Condition 9.</p>

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
	<p>Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. Reports must remain published for the life of the approval. The person taking the action must continue to publish this report each year until such time as agreed to in writing by the Minister.</p>		
<p>10</p>	<p>The approval holder may choose to revise a plan approved by the Minister under the conditions agreed to in this approval without submitting it for approval under section 143A of the EPBC Act, if taking the action in accordance with the revised plan would not be likely to have a new or increased impact. If the approval holder makes this choice they must:</p> <ul style="list-style-type: none"> a. Notify the Department in writing that the approved plan has been revised and provide the Department with an electronic copy of the revised plan. b. Implement the revised plan from the date that the plan is submitted to the Department. <p>For the life of the approval, maintain a record of the reasons the approval holder considers that taking the actions in accordance with the revised plan would not be likely to have a new or increased impact.</p>	<p>Not applicable</p>	<p>The Proponent did not choose to enact this right during the reporting period.</p>
<p>10A</p>	<p>The approval holder may revoke their choice under condition 10 at any time by notice to the Department. If the approval revokes the choice to implement a revised plan, without approval under section 143A of the EPBC Act, the plan approved by the Minister must be implemented.</p>	<p>Not applicable</p>	<p>The Proponent did not revise a plan under the provisions of condition 10 during the reporting period.</p>
<p>10B</p>	<p>Condition 10 does not apply if the revisions to the approved plan include changes to environmental offsets under the plan in relation to a matter protected by a controlling provision for the action, unless otherwise agreed in writing by the Minister. This does not otherwise limit the circumstances in which the taking of the action in accordance with a revised plan would, or would not, be likely to have new or increased impacts.</p>	<p>Not applicable</p>	<p>The Proponent did not revise a plan under the provisions of condition 10 during the reporting period.</p>

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
10C	<p>If the Minister gives a notice to the approval holder that the Minister is satisfied that the taking of the action in accordance with the revised plan would be likely to have a new or increased impact, then:</p> <ol style="list-style-type: none"> Condition 10 does not apply, or ceases to apply, in relation to the revised plan. The approval holder must implement the plan approved by the Minister. To avoid any doubt, this condition does not affect any operation of conditions 10, 10A and 10B in the period before the day the notice is given. <p>At the time of giving the notice the Minister may also notify that for a specified period of time that condition 10 does not apply for one or more specified plan required under the approval.</p>	Not applicable	The Proponent did not revise a plan under the provisions of condition 10 during the reporting period.
10D	Conditions 10, 10A, 10B and 10C are not intended to limit operation of section 143A of the EPBC Act which allows the approval holder to submit a revised plan to the Minister for approval.	Not applicable	Noted. A revised plan was not submitted during the reporting period.
11	If, at any time after 5 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without written agreement of the Minister.	Not applicable	The action commenced on 11 th November 2016, therefore this condition is not applicable.
12	Unless otherwise agreed to in writing by the Minister, the approval holder must publish all management plans referred to in these conditions of approval on their website. Each management plan must be published on the website within 1 month of being approved by the Minister for the duration of the approval.	Compliant	<p>All approved plans and documents have been published on Sunland's website within 1 month of being approved. The website link is below. <https://the-heights.com.au/koala-management.html>.</p> <p>The following plans were uploaded during the 2017/2018 reporting period and are available to download on the website:</p> <ul style="list-style-type: none"> - Stage 1b Offset Area Management Plan, prepared by QTFN, 23 May 2018. - WPMP – Precinct C1 & C2, prepared by TWC, August 2018. - WHIMP – Precinct C1 & C2 prepared by TWC, August 2018.

Condition Number / Reference	Condition	Is the Project compliant with this condition?	Evidence/ Comments
			- Post Clearing Report – Precinct C1 & C2, prepared by TWC, August 2018.

4. Correcting Non-Compliances

4.1. Stage 1 Clearing Thresholds

Condition 5 of the EPBC Act approval states:

To offset residual significant impacts to the koala the approval holder must:

- 5
- a. **Secure the Stage 1 Offset prior to the commencement of the action.**
 - aa. **Secure the Stage 1b Offset prior to clearing more than 20.5 ha of Koala habitat within the project site.**
 - b. **Secure the Stage 2 Offset prior to clearing more than 25.1 ha of koala habitat within the project site.**
 - c. **Provide the Department with the offset attributes, shapefile and map(s) clearing defining the location and boundaries of each offset, within 2 weeks of lodgement of the offsets with the Titles Office.**
 - d. **Ensure the agreement is registered on the tile on which each offset is located, and provide the Department with a signed copy of the agreement and evidence of lodgement with the Tiles Office within 2 weeks of lodgement.**
 - e. **Implement the Koala Crossing Fire Management Plan when the Stage 1 Offset is secured.**
-

In Section 3 above, the Project is compliant with Conditions 5a and 5b-e and has not exceeded the maximum clearing threshold of 25.1 ha prior to securing the Stage 2 Offset. However, as documented in the Year 1 ACR, the measured clearing of Koala habitat within the project site was 21.08 ha which exceeded the previous Condition 5b which required the Stage 2 Offset to be legally secured prior to clearing more than 20.5 ha of Koala habitat within the Project site.

As discussed in Section 2.2 of this Year 2 ACR, a variation was made to the EPBC 2014/7190 approval conditions to allow urgent vegetation clearing to occur on site. This clearing impact was compensated through the implementation of an additional Stage 1b Offset. Approval of this variation, included the addition of Condition 5aa and the change to Condition 5b to allow clearing of up to 25.1 ha of critical habitat to occur, prior to securing the Stage 2 Offset. While clearing of more than 20.5 ha (measured clearing of 21.08 ha) occurred prior to securing the Stage 1b offset, the clearing threshold required before securing the Stage 2 Offset was not breached. Additionally, no further clearing (i.e. more than the 21.08 ha reported in the Year 1 ACR) occurred prior to securing the Stage 1b Offset and no further clearing (i.e. more than 21.5 ha) will occur prior to securing the Stage 2 Offset.

5. Appendices

Appendix A

Koala Crossing Offset Area Management Report 2018, EPBC 2014/7190 (Stage 1), prepared by QTFN and Stage 1b Offset Letter

Appendix B

Approved Variation to EPBC 2014/7190 Approval Conditions

Appendix C

Stage 1b Offset Area Voluntary Declaration Package

Appendix D

Map of Koala Habitat Cleared in Year 2

Appendix E

Compliance Assessment against Management Measures in the KMP

Attachments

Attachment 1

KMP Compliance Checklists

Attachment 2

Copies of WHIMP, WPMP and Post-Clearing Reporting for Year 2

Attachment 3

Signed Pre-start Attendance Sheet (Toolbox Talk)

Attachment 4

Photos of Temporary Koala Exclusion Fencing

Attachment 5

Photos of Permanent Koala Exclusion Fencing

Attachment 6

Photos of Wildlife Movement Solution

Appendix A

Koala Crossing Offset Area Management Report 2018, EPBC 2014/7190 (Stage 1), prepared by QTFN and Stage 1b Offset Letter

5 February 2019

Saunders Havill
9 Thompson Street
Bowen Hills QLD 4006

Attention: Keira Grundy

Dear Keira

Re: Offset Management = Annual Compliance Report – EPBC 2014/7190.

Please find enclosed:

1. Annual Report for Stage 1 Offset Area
2. Compliance reporting for the Stage 1 b Offset Area

The Annual Report and compliance reporting detail management actions taken to date. Of note for this year are very positive outcomes for weed management – all transects within offset stage 1 have shown improvement.

As noted in the report, next year (Year 3, 2020) will be an intensive reporting year and will encapsulate far more detailed koala abundance and habitat assessments, and more detailed vegetation assessments.

It is understood that in future, reporting for both stages 1 and 1b will be contained in the same Annual Report due on or before 8 February each year. If that is not your understanding please let me know so we can adjust our reporting framework.

Yours sincerely,



Nerida Bradley
Executive General Manager



KOALA CROSSING

OFFSET AREA MANAGEMENT REPORT
EPBC 2014/7190

569 MT FLINDERS ROAD PEAK CROSSING

Year 2 February 2019



Document Control

Current document	
Title	Koala Crossing Offset Area Management Report 2018 EPBC 2014/7190
Date	October 2018
Prepared by	Renee Rossini, Felicity Shapland and Tanya Pritchard

Document Issue			
<i>Issue</i>	<i>Date</i>	<i>Prepared by</i>	<i>Checked by</i>
Internal Draft	1 st October 2018	Renee Rossini	Felicity Shapland & Tanya Pritchard
To Saunders-Havill	8 th Feb 2019	QTFN	-

Disclaimer

This report has been prepared for Sunland Group Project Management Pty Ltd by the Queensland Trust for Nature. QTFN cannot accept any responsibility for any use of or reliance upon the contents of this report by any third party.

Reports and/or Plans by Others

Reports and/or plans by others may be included within this Offset Area Management Report to support the document.

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CHAPTER 1: INTRODUCTION

The purpose of this document is to report on the management actions and outcomes required for the provision of koala (*Phascolarctos cinereus*) habitat offset, by Approval EPBC 2014/7190 issued pursuant to sections 130 and 133 of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC 1999). The focus of the plan is on the protection and enhancement of the koala habitat associated with the secured offset for the Nambucca Crescent Residential Development (EPBC 2014/7190). This document will report in accordance with stipulations and requirements laid out in the Offset Area Management Plan.

The structure of the document reflects the requirements of the Department of Environment and Energy (DEE), and details the key threatening processes which could impact on the existing koala population. The chapters that comprise the document report on the overall health of the koala population, vegetation composition, and actions to minimise threats to Koala. The management regime put in place by QTFN will enhance existing koala habitat through the exclusion of land practices detrimental to the site and will track improvements and progress in the annual offset report over the active management period.

This report is the second submitted to date since the approval date for the offset (EPBC 2014/7190) on the 25th October 2016. The past and future reporting requirements are listed below.

Milestone	Due date	Status
Approval of EPBC 2014/7190	-	Approved October 2016
Year 1 - Baseline	February 2018	Submitted November 2017
Year 2	February 2019	February 2019
Year 3 – intensive review year	February 2020	Reporting extended to include Stage 1b offset area Due for submission October 2019

Compliance summary and checklist for all conditions relevant to this reporting interval.

Relevant actions & monitoring requirements	Reporting requirement	Compliant
Outside of the formal koala density survey event, opportunistic koala sightings to be recorded (location and date) within the Annual Offset Area Assessment Report	Opportunistic koala sightings to be incorporated into the Annual Offset Area Assessment Report	Y
Monitoring of weed infestations; adaptive management of shrub, tree and vine weed species if required.	Weed cover (shrub, tree and vine species) does not exceed baseline levels by more than 10%. Monitoring results to be recorded in annual Offset Area Assessment Report.	Y
Vegetation clearing will not be undertaken within the offset area under any circumstances. Firebreaks and fire control lines to be inspected at a minimum quarterly frequency or after major storm events.	The location, extent and associated purpose for any vegetation clearing undertaken within the offset area will be detailed within the annual Offset Area Assessment Report. Any change to site connectivity is to be detailed within the annual Offset Area Assessment Report.	Y
Post initial control event, abundance surveys for wild dogs to be undertaken bi-annually by a suitably qualified person (e.g. pest animal control professional or ecologist with at least two years relevant professional experience) Offset area-wide traverse by the landholder each two months to record the presence/absence of signs of wild dogs (including scats). The monitoring will take place along a set route utilising the existing network of tracks within the offsets area (e.g. fire control lines) to allow for replication of the monitoring events. Where post control surveys indicate there has been a recurrence of wild dogs within the offset area, control measures will be actioned using methods (controlled shooting or baiting) determined by a pest control professional in consideration of monitoring results. Any injured koala found on site will be sent to a veterinary clinic/wildlife rescue facility for rehabilitation.	Results of all presence/absence surveys will be reported upon on an annual basis as a component on the Annual Offset Areas Assessment Report. All records of koala injury or death resulting from a dog attack are to be reported within the annual Offset Areas Assessment Report.	Y
Any observed koala injury/mortality on roads/tracks within the offset area or roads that front Lots 86, 87, 88 or 89 RP892014 to be recorded.	Incident to be recorded in annual Offset Area Assessment Report.	Y
Vegetation clearing will not be undertaken within the offset area under any circumstances.	The location, extent and associated purpose for any vegetation clearing or damage through natural disaster within the offset area will be detailed within the annual Offset Area Assessment Report.	Y
If any actions are proposed that may significantly impact the current (at time of offset area being legally secured) hydrological regime and therefore potentially impact koala habitat within the offset area then actions are required.	Where DoE approved hydrological change has occurred within the offset area, monitoring of the impact to the sites vegetation communities will be a component of an annual site assessment.	Y
With the exception of prescribed burning, which will only be undertaken for the purposes of biodiversity enhancement, the offset area is to be managed to avoid the occurrence of fire by maintaining fire control lines. Prescribed burning will be undertaken in consultation with, and under the guidance of the Queensland Rural Fire Brigade.	To be informed by an Offset Area Bushfire Management Plan. Monitoring results and maintenance log will be detailed within the annual Offset Area Assessment Report.	Y

CHAPTER 2: SETTING AND LOCALITY

By way of Deed, Sunland Group Project Management Pty Ltd secured delivery of an Offset Area Management Plan and registration of a Voluntary Declaration (under the Vegetation Management Act (QLD) of 260.36ha imposed by EPBC Approval 2014/7190 as part of the offset for Nambucca Crescent Residential Development. The voluntary declaration for the Stage 1b offset (lot 119 on CH311527) was secured on the 1st of August 2018, and reporting for EPBC 2014/7190 will include information for this lot from 2019 onward.

The offset area pertaining to EPBC 2014/7190 is managed as part of a larger conservation property located on Mount Flinders Road, Peak Crossing, Queensland comprised of eight lots; 86, 87, 88, 89 on RP892014, Lot 119 on CH311527, Lot 107 on CH311135, Lot 137 on CH311786 and Lot 138 on CC127 totalling approximately 654 ha (Map 1). The whole site, henceforth referred to as 'Koala Crossing', was purchased by the Queensland Trust for Nature (QTFN) in 2014 to protect regrowth vegetation from future development, with the aim of utilising the property for offsets.

The tenure of the site is freehold, wholly owned by the Queensland Trust for Nature. It is included within the Scenic Rim Regional Council Local Government Area. On a regional scale, the site is part of the Flinders Karawatha Corridor, the largest remaining contiguous stretch of open eucalypt forest in South East Queensland (SEQ) (EHP 2014). The corridor stretches for 60km from the Karawatha forest in Brisbane, through Flinders Peak to Wyaralong Dam near Boonah, and encompasses 56,350 ha of land. It is an important wildlife corridor, providing habitat for a number of vulnerable species including the tusked frog (*Adelotus brevis*), glossy black-cockatoo (*Calyptorhynchus lathami*), powerful owl (*Ninox strenua*), black-breasted button-quail (*Turnix melanogaster*), spotted-tailed quoll (*Dasyurus maculatus maculatus*), brush-tailed rock-wallaby (*Petrogale penicillata*) and koala (*Phascolarctos cinereus*).

Climate data for the area gives a mean maximum and minimum temperature of 27.3°C and 13.9°C respectively. The average annual rainfall is 674mm (BoM 2018), with the wettest month in January and the driest month in August. The site contains four Regional Ecosystems (REs):

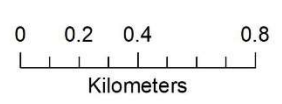
- 12.8.24 Endangered: *Corymbia citriodora subsp. variegata* open forest on Cainozoic igneous rocks especially trachyte
- 12.9-10.7 Of concern: *Eucalyptus crebra* +/- *E. tereticornis*, *Corymbia tessellaris*, *Angophora spp*, *E. melanophloia* woodland on sedimentary rocks
- 12.9-10.2 Of least concern: *Corymbia citriodora subsp. variegata* +/- *Eucalyptus crebra* open forest on sedimentary rocks
- 12.9-10.17 Of least concern: *Eucalyptus acmenoides*, *E. major*, *E. siderophloia* +/- *Corymbia citriodora subsp. variegata* woodland on sedimentary rocks

The highest point of the site is 210m above sea level on the eastern side, close to the border of lots 86 and 87 RP892014. The Geological Survey of Queensland 1:100,000 Ipswich Geological Map (DME 2008) lists the geology as:

- Qa SEQ: Quaternary; clay, silt, sand, gravel, flood plain alluvium
- Tit SEQ: Tertiary: trachyte (anorthoclase and riebeckite trachyte)
- Jbmk: Jurassic; lithofeldspathic labile and sublabile to quartzose sandstone, siltstone, shale, minor coal, ferruginous oolite marker
- Jbmg: Jurassic; lithic labile and feldspathic labile sandstone



MAP 1 EPBC 2014/7190 Context



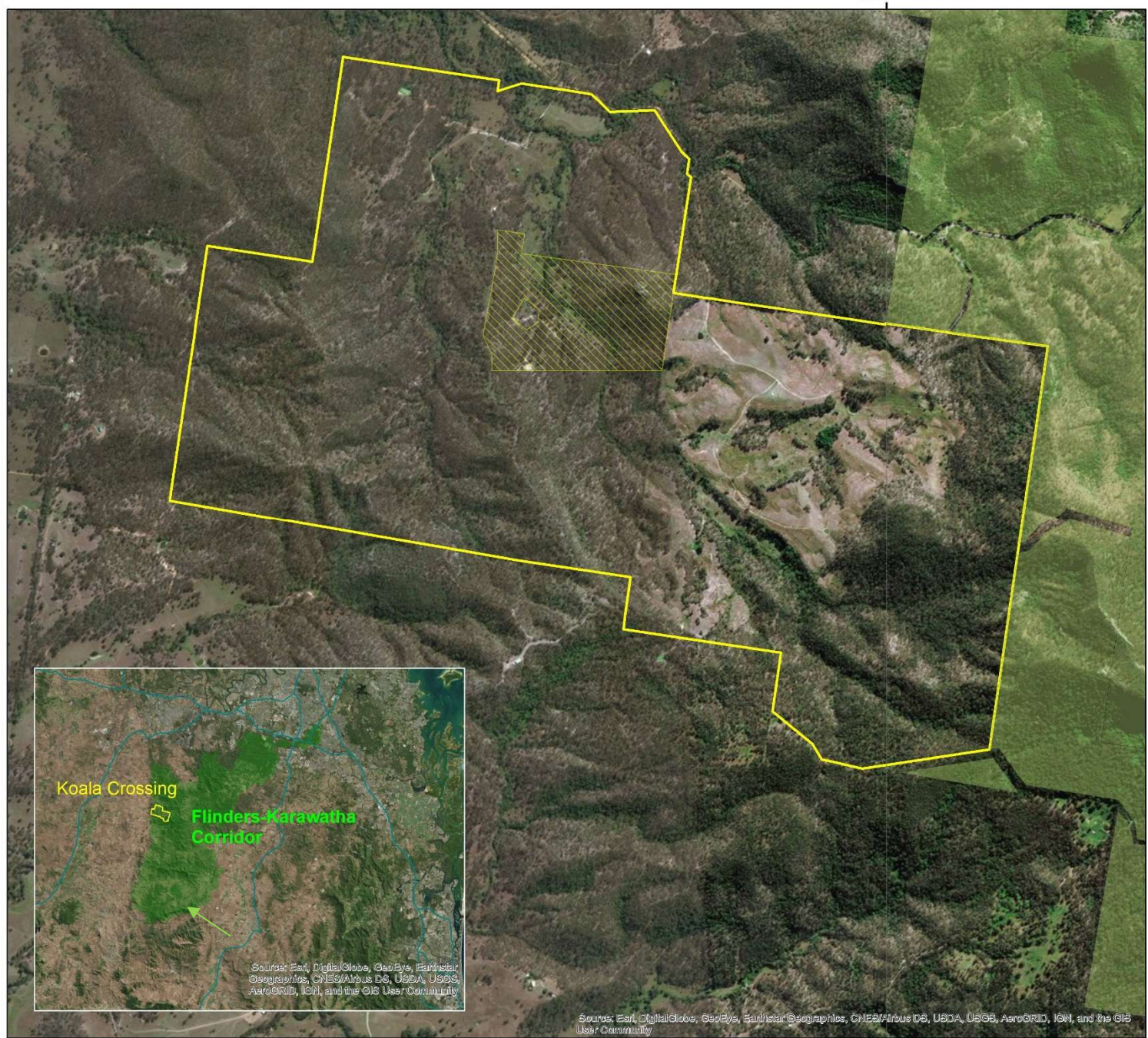
1 cm = 160 meters
when printed at A3

Legend

-  OFFSETS_Sunland EPBC2014_7190
-  GENERAL_Ipswich Reserves
-  Koala Crossing boundary

Author: QTFN
 Date: 13/9/2018
 Source: Cadastral Boundaries,
 Data supplied by QSpatial
<http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>

ACCURACY STATEMENT
 Due to varying sources of data,
 spatial locations may not coincide
 when overlaid.



Source: Esri, DigitalGlobe, GeoEye, Earthstar
 Geographics, CNES/Airbus DS, USDA, USGS,
 AeroGRID, IGN, and the GIS User Community

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

CHAPTER 3: OFFSET AREA ANNUAL REPORT

3.1 KOALA OCCURENCE

Relevant actions	Reporting requirement	Compliant
Outside of the formal koala density survey event, opportunistic koala sightings to be recorded (location and date) within the Annual Offset Area Assessment Report	Opportunistic koala sightings to be incorporated into the Annual Offset Area Assessment Report	Y
For full OAMP see Appendix 1.		

Koalas are under significant threat in SEQ due to habitat encroachment by urbanisation, predation by feral and domestic animals and traffic accidents caused by increased road networks and motor vehicles. Koala Crossing was purchased by the Queensland Trust for Nature with the intention of finding sustainable funding models to preserve koala habitat and provide linking territories to the Flinders-Goolman Conservation Estate and the Flinders-Karawatha Corridor. The delivery of third party project impact offsets has provided a means of funding ongoing restoration and revegetation of large parts of the property.

Baseline surveys conducted in 2015 (and reported on in the Year 1 Offset Area Management report indicated a population of between 10 to 15 koalas using the Koala Crossing site as a whole. Koala scat searches detected koala presence at 76% of plots examined in a variety of habitats across the Koala Crossing site. Since this baseline survey, five rehabilitated koalas have been released on the site, and koala scats and camera trap observations suggest a stable population of koala.

1 MONITORING IN THIS PERIOD

This report will document the continued koala observations and monitoring within the offset area, in line with the requirement of the OAMP between July 2017 and June 2018. In this reporting period, ongoing opportunistic observations regarding koala have been made in the form of scat searches and camera trapping. Four camera trapping stations were deployed across the site (see Section 3.4 for locations), and scat searches were conducted opportunistically across the offset area.

Methodologies remain unchanged from previous reports. Trees were selected at random throughout the property and searched for Koala scratch marks and scats within 1m of the base. As recommended by the Koala Ecology Group in the original baseline survey, a maximum search effort of 11 trees was conducted in any one site before a site was considered to have no evidence of recent koala activity. Where very fresh scats were found a brief visual search of the immediate area was conducted to determine if a koala was still present. Relative Activity Indices are calculated for koala in the same manner as for feral predators, the methods for which are detailed in Section 3.4.

2 RESULTS AND MANAGEMENT OUTCOMES

Scat searches

Scat searches from the 2017/2018 monitoring period show koala scats across the offset area (Map 2). Intensive searches of three sites on the western margin of the offset area for EPBC 2014/7190 had koala scat under an average of 13% of trees at two out of the three sites, and at the two sites where scat was found they were found within the

2nd tree searched (a number far below the baseline average for the Koala Crossing site of 11 trees being searched before scat was found).

Camera trap observations

In this monitoring interval no koala was captured on the camera traps within the EPBC 2014/7190 offset area (Camera Station G, Map 2). This is despite there being evidence of koala using the area intensively from scat records presented above, and from past intensive collaring and home range estimates (from 2015) (Map 2). At least two koalas were captured on other cameras (one location shown in Map 2, image in Figure 1) and camera trapping data across the Koala Crossing site shows the Relative Activity Index for koala steadily increasing (RAI for Year 1 = 0, Year 2 = 2.5). All scats found in the 2018 observation interval fall outside of known koala territories, suggesting either these previously tracked individuals have shifted their territories or that another koala may be foraging between these two territories



Figure 1. Untagged koala caught on camera traps in the winter sampling seasons at Camera Station D denoted as the pink circle in Map 2.

Management outcomes

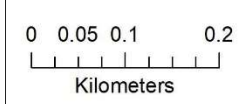
The current data suggests koala densities remain stable, or are increasing, and individuals released into the area perform well. Should koala density be found to significantly reduce (as defined by the applied survey method or expert) between survey events, a supplementary assessment will be implemented to review the likely cause of the reduced occurrence of koala within the offset area in accordance with the Offset Area Management Plan requirements (Appendix 1 action #2.1.5.7). In addition to the existing population, the property will continue to act as a release site for recuperated koalas that were found close to the property. Intensive site-wide scat surveys, spotlighting surveys and tracking activities are planned for the Year 3 reporting period (2019).



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community










MAP 2
EPBC 2014/7190
Koala Occurrences



1 cm = 50 meters
 when printed at A3

Legend

-  Known koala territories
-  Koala records on camera trapping station
-  Koala scat search sites
-  KOALA_scat_locations_2018
-  KOALA_scat_locations_pre2018
-  OFFSETS_Sunland EPBC2014_7190
-  Koala Crossing boundary

Author: QTFN
 Date: 13/9/2018
 Source: Cadastral Boundaries,
 Data supplied by QSpatial
<http://qdsatial.information.qld.gov.au/catalogue/custom/index.page>

ACCURACY STATEMENT
 Due to varying sources of data,
 spatial locations may not coincide
 when overlaid.

3.2 VEGETATION COMPOSITION

Relevant actions	Reporting requirement	Compliant
Monitoring of weed infestations; adaptive management of shrub, tree and vine weed species if required. For full OAMP see Appendix 2.	Weed cover (shrub, tree and vine species) does not exceed baseline levels by more than 10%. Monitoring results to be recorded in annual Offset Area Assessment Report.	Y

The maintenance of the koala population is dependent on the health, age and distribution of koala food trees within the offset area. Monitoring and management of the vegetation is an essential part of the management plan.

In this period activities focus on annual weed monitoring and corrective actions, ensuring there is no increase in weeds above the baseline.

1 MONITORING IN THIS PERIOD

Weed assessments continue to be conducted annually and compared to results from the baseline survey of 2015. Permanently marked transects were surveyed according to Nelder *et al* 2015 in a 50 x 10m transect (Map 3). Photo points were recorded at each transect so that the progress of the site could be monitored (Appendix 2). The target weed species identified as a threatening process to koalas is *Lantana camara*. Whilst other weeds were measured for overall ecological health, the focus of the weed management is the control and eradication of *L. camara*, as it has the capacity to prevent koala movement and access to food and shelter trees.

2 RESULTS AND MANAGEMENT OUTCOMES

PROPERTY-WIDE TRENDS

Targeted eradication of *Lantana camara* within the offset area used two methods – weed treatment in heavily infested areas (Map 3) and ecological burns on ridgelines and open Eucalypt forest (see Section 3.8). Weed treatments have been generally successful (Figure 2). The number of transects with *L. camara* across the Koala Crossing site peaked in year 2 and 3 but is now in decline. The percent coverage of the plant within the transects it persists within is also declining (Figure 3).



Figure 2. Before (left) and after (right) weed treatment photos of a heavily infested patch of *Lantana camara*. Yellow arrow is pointing to the *Lantana* thicket.

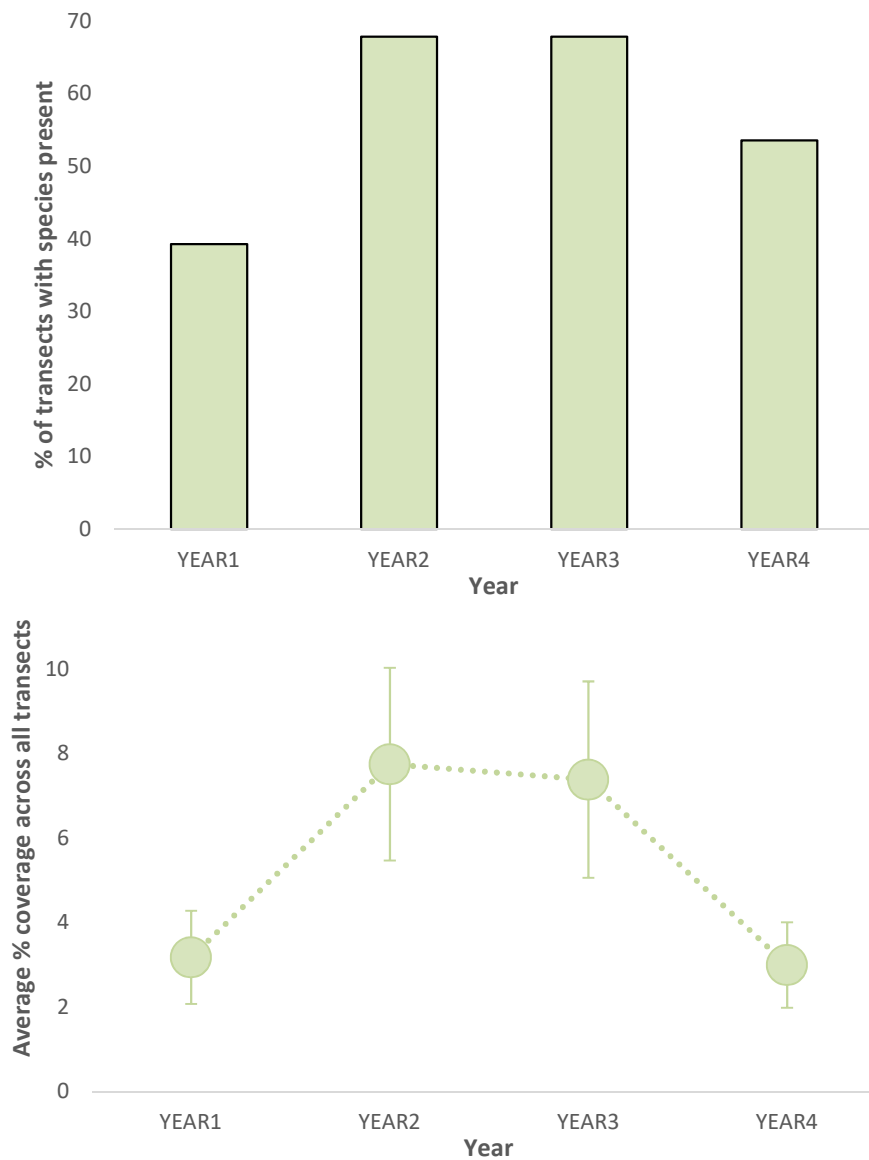


Figure 3. The percentage of the 28 weed transects across the western portion of the Koala Crossing reserve containing *Lantana camara* (top) and the average percent coverage of all transects in each survey year relevant to this offset (Year 1 – 2015, Year 2 – 2016, Year 3 – 2017 and Year 4 – 2018).

OFFSET-SPECIFIC TRENDS

Within the EPBC 2014/7190 offset area, intensive weed treatments have targeted creek lines where *L. camara* is at it's worst (Map 3). Of the 5 vegetation monitoring transects within the offset area, all five have improved as *L. camara* density in all was lower in the 2018 sampling interval than in the 2017 interval (see Appendix 3). There has also been significant understory development in many plots (e.g. Appendix 3, Transect 24).

MAP 3
EPBC 2014/7190
Weed transects

0 0.05 0.1 0.2
Kilometers

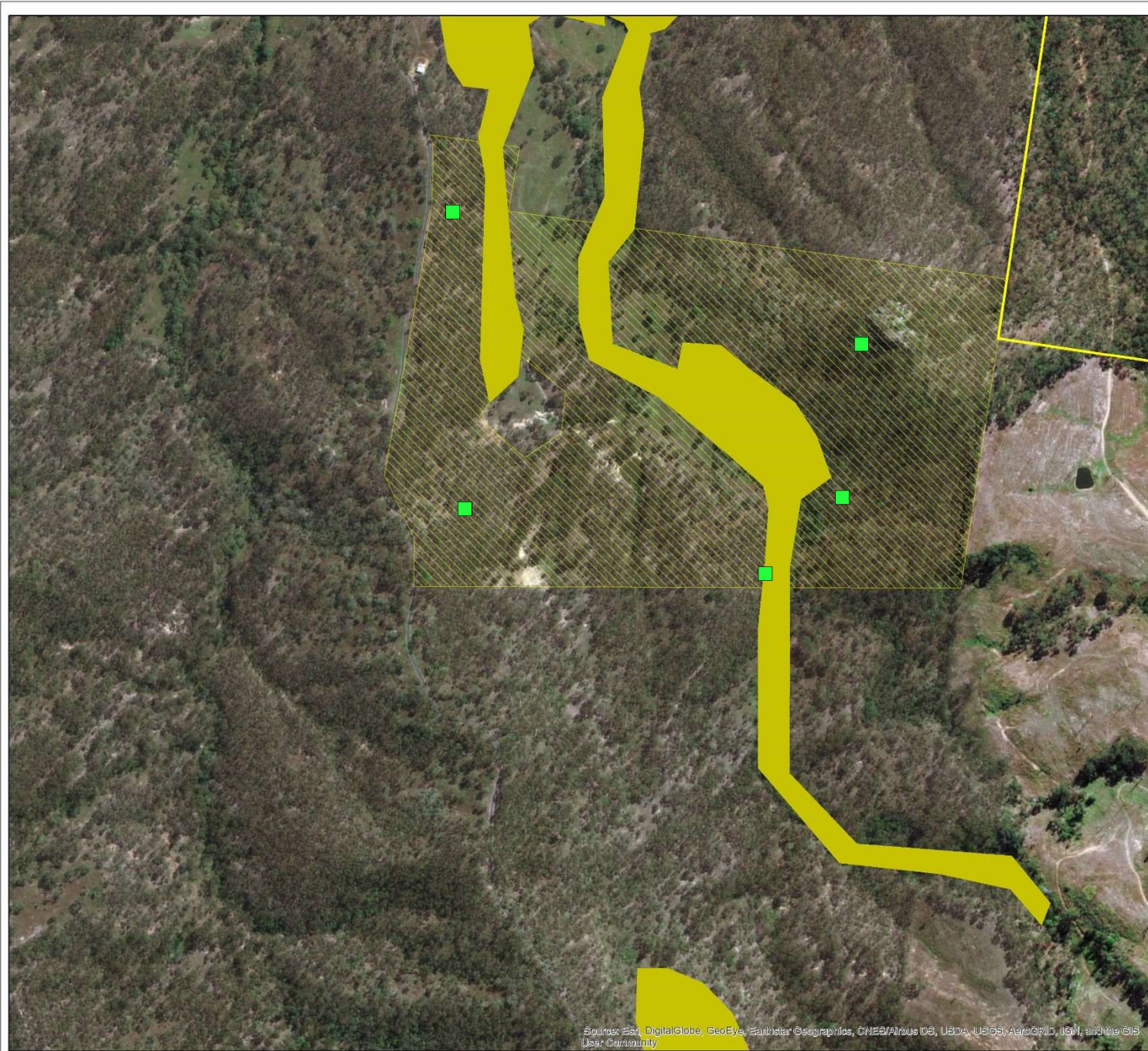


1 cm = 50 meters
when printed at A3

Legend

-  Improved
-  No change
-  Deteriorated
-  WEEDS_treatment areas
-  OFFSETS_Sunland EPBC2014_7190
-  Koala Crossing boundary

Author: QTFN
Date: 13/9/2018
Source: Cadastral Boundaries,
Data supplied by QSpatial
<http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>
ACCURACY STATEMENT
Due to varying sources of data,
spatial locations may not coincide
when overlaid.



Management actions

Weed management in the offset area consisted of weed treatments of heavily infested areas in the south-east of the offset area (Map 3). Ongoing weed management actions will focus on *Lantana* within the offset area and involve annual spraying after significant rain between the months of October to March.

All other actions in this category (see Appendix 2) are due for completing in year 3 and will be included in next year's report.

3.3 HABITAT CONNECTIVITY

Relevant actions	Reporting requirement	Compliant
Vegetation clearing will not be undertaken within the offset area under any circumstances.	The location, extent and associated purpose for any vegetation clearing undertaken within the offset area will be detailed within the annual Offset Area Assessment Report.	Y
Firebreaks and fire control lines to be inspected at a minimum quarterly frequency or after major storm events.		
For full OAMP see Appendix 4.	Any change to site connectivity is to be detailed within the annual Offset Area Assessment Report.	

1 MONITORING AND MANAGEMENT OUTCOMES

Firebreak inspection has been undertaken monthly during the 2017-2018 monitoring period. There has been no clearing undertaken within the offset area, nor a change to site connectivity. No major changes in koala habitat resulted from the prescribed burn (details of which can be found in Section 3.8).

Management actions

Continue to follow the offset area management plan.

3.4 THREAT TO KOALA FROM DOGS, FOXES AND CATS

Relevant actions	Reporting requirement	Compliant
<p>Post initial control event, abundance surveys for wild dogs, foxes and cats to be undertaken bi-annually by a suitably qualified person.</p> <p>Offset area-wide traverse by the landholder each two months to record the presence/absence of signs of wild dogs, foxes and cats (including scats).</p> <p>Where post control surveys indicate there has been a recurrence of wild dogs within the offset area, control measures will be actioned using methods (controlled shooting or baiting) determined by a pest control professional in consideration of monitoring results.</p> <p>Any injured koala found on site will be sent to a veterinary clinic/wildlife rescue facility for rehabilitation.</p> <p>For full OAMP see Appendix 5 & 6.</p>	<p>Results of all presence/absence surveys will be reported upon on an annual basis as a component on the Annual Offset Areas Assessment Report.</p> <p>All records of koala injury or death resulting from a dog attack are to be reported within the annual Offset Areas Assessment Report.</p>	<p>Y</p>

1 MONITORING

Monitoring was conducted using remote sensing wildlife cameras (see Appendix 7 for examples of images) and offset area wide traverses for opportunistic scat collections. In years two and three, five Reconyx hyperfire HC600 remote sensing cameras were placed throughout the site, with one of those within the EPBC 2014/7190 offset area. As of 2018, this survey effort has been extended to 13 camera stations capturing a broader view of the landscape of Koala Crossing as a whole, with one remaining in its fixed location within the EPBC2014/7190 offset area.

Methodologies remain unchanged, but in contrast to previous reporting years, relative abundance indices are now calculated using a standardised set of trapping days (40), with an independence threshold of 10mins (i.e. each observation of an animal ten minutes after the first observation is considered a new observation) analysed using the software ‘Camelot’.

Given that the movement range of these feral predators extends beyond the specific offset area, RAI are presented including the data from any camera trapping station with projected territories of any feral animal that overlap with the offset area. Observations specific to cameras within the offset area are presented in maps.

2 RESULTS AND MANAGEMENT OUTCOMES

Monitoring of RAI for wild dogs, foxes and cats

PROPERTY-WIDE TRENDS

Wild dogs (*Canis lupus*) and foxes (*Vulpes vulpes*) have been recorded within the offset area, and the first cat (*Felis catus*) recorded on camera traps was observed in the winter sampling period of this reporting year. Across the site, wild dog numbers have fluctuated considerably (Figure 4). After control efforts of last season their numbers are back to baseline level. The RAI for foxes has increased steadily and exceeded baseline levels for this reporting period (Figure 4). Actions have been taken to control their numbers (see next section).

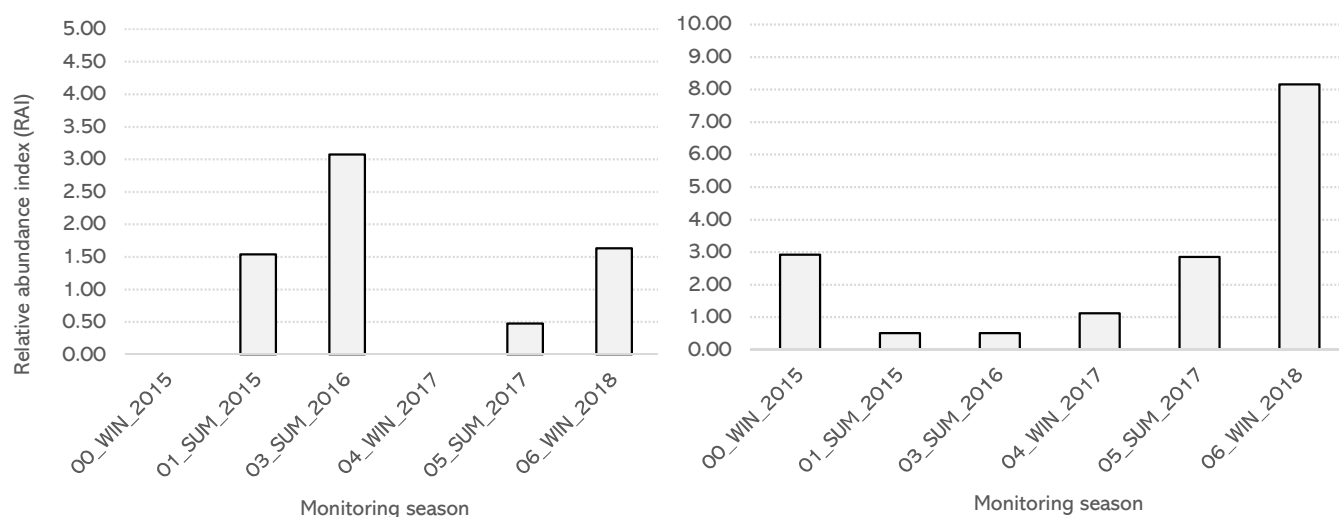


Figure 4. Relative Abundance Index for wild dogs (*C. lupus*; left) and foxes (*V. vulpes*; right) across the whole Koala Crossing property for this monitoring period.

Analysis of predator scat

Predator scats continue to be found across the Koala Crossing site and within the EPBC 2014/7190 offset area (Map 4). Although both foxes and wild dogs remain on the site, predatory scats collected within this sampling period suggest that neither predator is consuming koala or any other threatened species (Table 1).

Table 1. The types of prey item identified from fox and wild dog scat collected within the site by June 2017, sorted by the frequency of individual predators whose scat contained each prey type (e.g. Eastern grey kangaroo was found in 36% of the 11 scats collected).

Species name	Common name	Frequency 2016-2017	Frequency 2017-2018
<i>Macropus giganteus</i>	Eastern grey kangaroo	0.36	0.11
Unidentifiable berry	-	0.27	0
<i>Pseudomys gracilicauda</i>	Eastern Chestnut Mouse	0	0.39
<i>Rattus fuscipes</i>	Bush Rat	0	0.06
<i>Pseudocheirus peregrinus</i>	Ringtail Possum	0	0.11
<i>Wallabia bicolor</i>	Swamp wallaby	0.18	0.17
<i>Canis lupus</i>	Dog	0.18	0.06
<i>Isodon macrourus</i>	Northern brown bandicoot	0.09	0.33
Unidentifiable mammal bone	-	0.09	-
Unidentifiable bird	-	0.09	0.33
Unidentified reptile	-	0	0.06
Unidentifiable beetle	-	0.09	0

Scats collected in this sampling period document a shift in prey type in both foxes and dogs (Table 1). In the previous monitoring period, most fox and dog scats contained large marsupials (Eastern grey kangaroo and Swamp wallaby) whilst in this sampling period there is a marked shift to smaller prey items (Bandicoot, Chestnut mouse and birds).

Other observations

Other feral animals captured on camera were feral pigs *Sus scrofa*, and European hare *Lepus europeas* and a small group of peacocks *Pavo cristatus* that only appeared in Summer of 2018.

The list of native fauna captured on camera traps continues to grow and includes a range of macropod species (e.g. the eastern grey kangaroo *Macropus giganteus*, red-necked wallaby *Macropus rufogriseus* and whiptail wallaby *Macropus parryii*, other small marsupials (e.g. Brush-tailed Phascogale *Phascogale tapoatafa*, northern brown B\bandicoots *Isoodon macrourus*, long-nosed bandicoots *Perameles nasuta*), rodents (*Rattus fuscipes*), echidna (*Tachyglossus aculeatus*), and birds (common bronze-wing pigeon *Phaps chalcoptera* and Australian magpie *Cracticus tibicen*).

OFFSET-SPECIFIC TRENDS

Foxes and cats were captured on a single camera trap within the EPBC 2014/7190 offset area at Camera Station G (Map 4). Wild dogs have not been observed on this camera site since late 2015, however one of the scats found within the offset area was identified as a dog scat.

Table 2. The number of camera traps with a 1km radius that overlaps with the EPBC2014/7190 offset area (Stations E, F & G).

	Wild dogs	Foxes	Cats
00_WIN_2015	0	1	0
01_SUM_2015	1	1	0
03_SUM_2016	2	0	0
04_WIN_2017	0	0	0
05_SUM_2017	0	1	0
06_WIN_2018	0	1	1

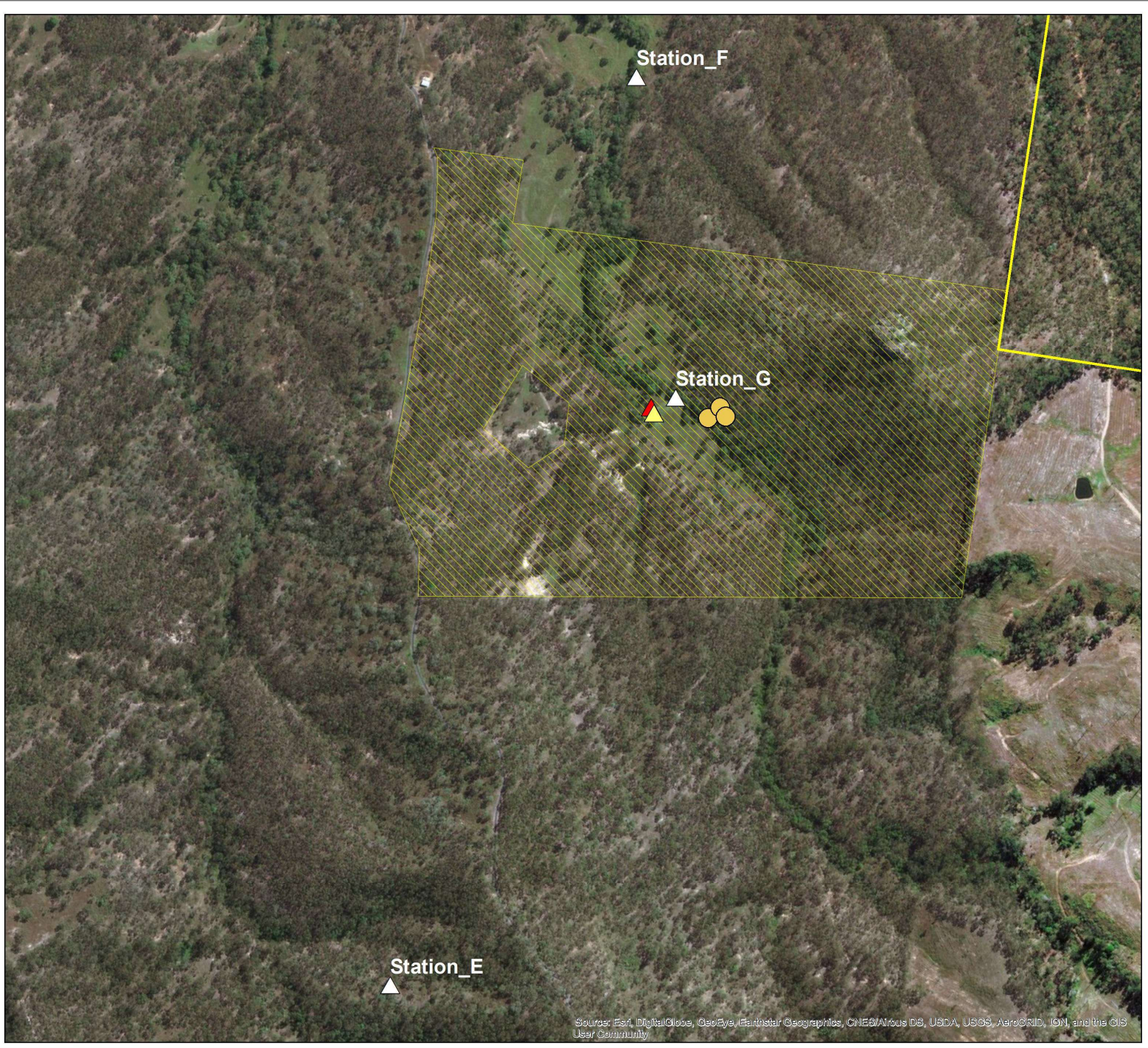
Management actions

As of winter 2018, a contractor was engaged with a primary focus on reducing the number of foxes. To date, one vixen (who was found to be pregnant with 3 cubs) has been trapped (Figure 5). This individual was likely to be one caught on Camera Station G. Biannual monitoring using camera traps will continue, and the feral animal contractor will target the remaining fox within the west.

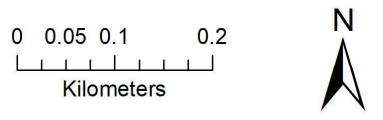
The inherent nature of controlling introduced predators over an unfenced site means some years will see an increase in numbers, regardless of measures put in place to control them.



Figure 5. Pregnant vixen shot during 2018 Winter control.



MAP 4
EPBC 2014/7190
Predator monitoring



1 cm = 50 meters
 when printed at A3

Legend

- Camera trap locations
- FERALS_Predator_scat_2017_2018
- Cat photo
- Dog photo
- Fox photo
- OFFSETS_Sunland EPBC2014_7190
- Koala Crossing boundary

Author: QTFN
 Date: 13/9/2018
 Source: Cadastral Boundaries,
 Data supplied by QSpatial
<http://qldspatial.information.qld.gov.au/catalogue/custom/index.page>
ACCURACY STATEMENT
 Due to varying sources of data,
 spatial locations may not coincide
 when overlaid.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

3.5 THREAT TO KOALA FROM VEHICLE STRIKE

Relevant actions	Reporting requirement	Compliant
Any observed koala injury/mortality on roads/tracks within the offset area or roads that front Lots 86, 87, 88 or 89 RP892014 to be recorded. For full OAMP see Appendix 8.	Incident to be recorded in annual Offset Area Assessment Report.	Y

There were no vehicle strike incidents in any part of the property.

3.6 THREAT TO KOALA VIA BARRIERS TO DISPERSAL

Relevant actions	Reporting requirement	Compliant
Vegetation clearing will not be undertaken within the offset area under any circumstances. For full OAMP see Appendix 9.	The location, extent and associated purpose for any vegetation clearing or damage through natural disaster within the offset area will be detailed within the annual Offset Area Assessment Report.	Y

There was no vegetation clearing (excluding weeds) undertaken in any part of the offset area.

There was no damage associated with a natural disaster within any part of the offset area.

3.7 THREAT TO KOALA HABITAT THROUGH HYDROLOGICAL CHANGE

Relevant actions	Reporting requirement	Compliant
If any actions are proposed that may significantly impact the current (at time of offset area being legally secured) hydrological regime and therefore potentially impact koala habitat within the offset area then actions are required. For full OAMP see Appendix 10.	Where DoE approved hydrological change has occurred within the offset area, monitoring of the impact to the sites vegetation communities will be a component of an annual site assessment.	Y

There have been no hydrological changes made on any part of the property.

3.8 THREAT TO KOALA THROUGH FIRE

Relevant actions	Reporting requirement	Compliant
Except for prescribed burning, which will only be undertaken for the purposes of biodiversity enhancement, the offset area is to be managed to avoid the occurrence of fire by maintaining fire control lines.	To be informed by an Offset Area Bushfire Management Plan.	
Prescribed burning will be undertaken in consultation with, and under the guidance of the Queensland Rural Fire Brigade.	Monitoring results and maintenance log will be detailed within the annual Offset Area Assessment Report.	Y
For full OAMP see Appendix 11.		

Threat to koala from fire was addressed in accordance with table 2.9 of the OAMP by referring to the ‘Koala Crossing Fire Management Plan’.

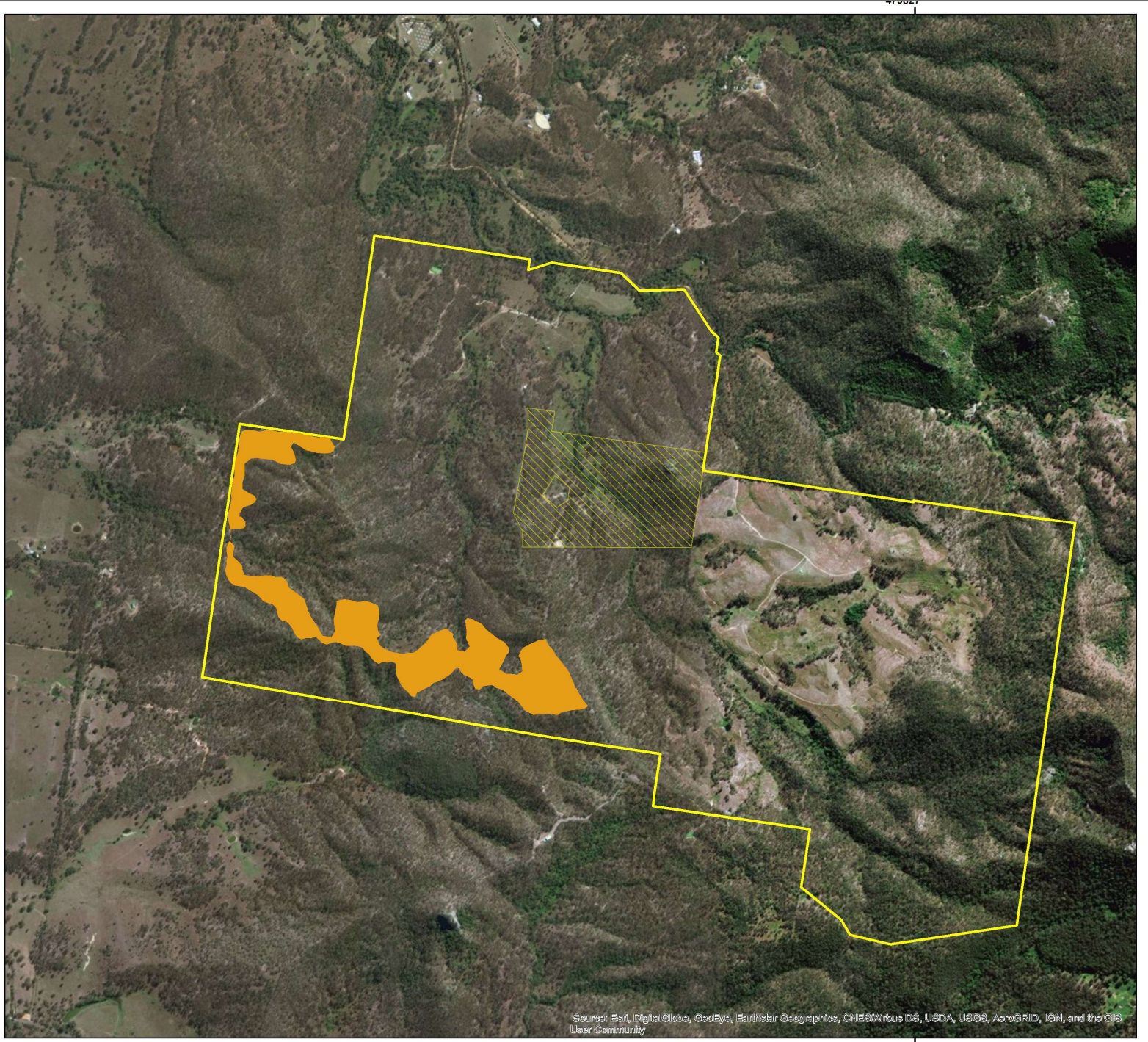
The Koala Crossing Fire Management Plan divides the property into Fire Management Zones: Land Management Zones, Exclusion Zones and Asset Protection Zones. Within the Land Management Zones the landscape is broken up into subzones (Fire Management Areas) according to practicable containment lines. The Fire Management plan details burning intervals recommended for these FMAs (KCFMP 2015 p.16). The EPBC 2014/7190 offset area encapsulates fire management zones FMB4, FMB5 and FMB7. All of these zones have low recommended burn frequencies and intensities (KCFMP, 2015).

2 RESULTS AND MANAGEMENT OUTCOMES

In accordance with the Fire Management Plan, an ecological burn was conducted in 2018 in ‘FMA2’ to the south-west of EPBC 2014/7190 to reduce the risk of wildfire. Approximately 34ha were burned (Map 5), with a slow and cool burn that was well below the canopy ensuring that no koala would have been endangered by this management action (Figure 6).



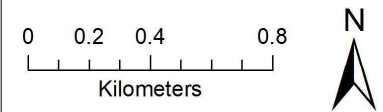
Figure 6. Post burn photo showing the intact canopy and low level to which the flames reached.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community






MAP 5
EPBC 2014/7190
Prescribed burn



1 cm = 160 meters
 when printed at A3

Legend

-  FIRE_2018_Ecoburn
-  OFFSETS_Sunland EPBC2014_7190
-  Koala Crossing boundary

Author: QTFN
 Date: 13/9/2018
 Source: Cadastral Boundaries,
 Data supplied by QSpatial
[http://qldspatial.information.qld.gov.au/
 catalogue/custom/index.page](http://qldspatial.information.qld.gov.au/catalogue/custom/index.page)
ACCURACY STATEMENT
 Due to varying sources of data,
 spatial locations may not coincide
 when overlaid.

3.9 THREAT TO KOALA AND KOALA HABITAT FROM DISEASE AND PATHOGENS

Relevant actions	Reporting requirement	Compliant
<p>To reduce the risk of introducing Chlamydia and Koala retrovirus into the resident population; uncontrolled translocation of koala is not permitted within the offset area.</p>	<p>Incidence of koalas exhibiting disease to be recorded if encountered during any monitoring events within the offset area.</p>	
<p>Vegetation management activities which include tree lopping/felling, weed removal, tree planting (including nursery suppliers) are deemed to be high risk in the context of introducing pathogens that may potentially impact koala habitat. As such, any person engaged to undertake these activities must satisfy the landholder that they have undertaken all reasonable steps to prevent the introduction of a pathogen/disease to the site (e.g. vehicle and equipment washdown prior to site entry).</p>	<p>Confirmation of translocation activity within the offset area is to be included within annual Offset Area Assessment Reports.</p>	Y
<p>For full OAMP see Appendix 12.</p>		

1 MONITORING

The initial baseline survey for koala health (July 2015) indicated no incidence of koala diseases within the population at Koala Crossing, however subsequent surveys indicated two instances of koalas infected with chlamydia. Chlamydia is a bacterial infection which affects most koalas within South East Queensland. The disease weakens the immune system and causes various problems, including blindness and female infertility. Stress within a population can cause outbreaks of Chlamydia. Stressors include habitat clearing, fragmentation and lack of food resources.

Continued monitoring was conducted from November 2016 to November 2017 with incidental sightings and monitoring events carried out by QTFN Ecologists and UQs KEG researchers. An ongoing program is in place to continue monitoring Koala Crossing’s koala population to ensure they are healthy and thriving.

2 RESULTS AND MANAGEMENT OUTCOMES

No new observations of disease have been made in this reporting interval. No new translocations have occurred. A new koala observed in this monitoring interval shows no visible signs of disease. Efforts will be made to assess this currently untagged individual in the intensive koala assessment activities for year 5.

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APPENDIX

APPENDIX 1

Table 2.1 Occurrence of Koala within offset area from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 12-13.

Outcome	2.1.1.1 Increase koala density within offset area
Actions	2.1.2.1 Baseline koala density survey completed in June 2015 using Koala Rapid Assessment Method (Woosnam-Merches et al. 2012) and SAT and line transect surveys (Phillips and Callaghan. 2011; Dique et al. 2003) 2.1.2.2 Replicated koala density/occurrence surveys undertaken within the offset area at years 5 and 10 from the date at which the offset is legally secured 2.1.2.3 Koala density surveys to be undertaken by a suitably qualified environmental scientist
Performance Indicators	2.1.3.1 Baseline koala density/occurrence survey undertaken and documented 2.1.3.2 Koala density/occurrence surveys (years 5 and 10) records an increase in koala density/activity within offset area 2.1.3.3 Offset area is legally secured for conservation purposes
Monitoring	2.1.4.1 Baseline assessment of koala density to be undertaken in June 2015 2.1.4.2 Outside of the formal koala density survey event, opportunistic koala sightings to be recorded (location and date) within the Annual Offset Area Assessment Report
Reporting	2.1.5.1 Results of pre-survey methodology review is to be documented within the Annual Offset Area Report 2.1.5.2 Details of expert that undertook the review and the survey study term are also be included 2.1.5.3 The koala density survey results will be incorporated within the relevant Annual Offset Area Assessment Report (years 0, 5 and 10) 2.1.5.4 Opportunistic koala sightings to be incorporated into the Annual Offset Area Assessment Report 2.1.5.5 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey 2.1.5.6 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email
Corrective Action	2.1.5.7 Should the koala density be found to significantly reduce (as defined by the applied survey method or koala expert) between survey events; a supplementary assessment will be implemented to review the likely cause of the reduced occurrence of koala within the offset area. The outcomes of the review inform adaptation of the management approach

APPENDIX 2

Table 2.2 Vegetation composition from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 13-15.

<p>Outcomes</p>	<p>2.2.1.1 Vegetation composition maintains a ‘high’ score value in relation to habitat that is critical to the survival of the koala 2.2.1.2 No significant increase in weed cover for species that could adversely affect the structural composition of vegetation within the offset area in relation to koala habitat value (i.e. weed species that are shrubs, trees or vines) 2.2.1.3 Retain and enhance the structure and floristic diversity of canopy vegetation 2.2.1.4 Retain and enhance the structure and floristic diversity of middle and understorey vegetation 2.2.1.5 Ongoing retention and recruitment of Koala food trees 2.2.1.6 Permanently remove existing threat of habitat degradation associated with clearing, development or other incompatible land uses 2.2.1.7 Domestic livestock excluded from offset area (unless controlled grazing required for fire risk management)</p>
<p>Actions</p>	<p>2.2.2.1 Monitoring of canopy composition with respect to koala food tree species; adaptive management if required. Monitoring to include representative surveys of all applicable (koala habitat) vegetation communities within the offset area. For example, tertiary-level vegetation surveys in accordance with Neldner et al (2012) 2.2.2.2 Monitoring of weed infestations; adaptive management of shrub, tree and vine weed species if required 2.2.2.3 Flora surveys to be undertaken by a suitably qualified environmental scientist 2.2.2.4 To remove the risk of habitat degradation associated with clearing, development or other incompatible land uses, the entire 161.11 ha offset area will be managed for conservation purposes 2.2.2.5 Given that the subject property boundary is currently fenced in koala-permeable fencing, livestock will be excluded from the offset area through at least one of the following mechanisms: Livestock will not be kept within balance areas of Lots 87 or 88 RP892014 or, Koala-friendly fencing will be erected along the northern boundary of the offset area to exclude livestock grazing outside of the offset area yet within the subject property in accordance with a relevant guidelines 2.2.2.6 Domestic livestock will only be introduced in the event that a fire risk professional and a suitably qualified environmental scientist deem that conditions are not suitable for an ecological burn and that grazing is appropriate to manage a high level of fire risk. In the event, a maximum head of 12 domestic livestock may be introduced for no more than three consecutive weeks. Level of risk is to be re-assessed by the aforementioned professionals following the grazing event 2.2.2.7 Vegetation clearing will not be undertaken within the offset area under any circumstances, except the following: Removal of weeds To establish and maintain fencing around the boundary of the offset area To establish and maintain firebreaks and fire trails in accordance with an Offset Area Bushfire Management Plan that has been prepared by a suitably qualified professional To remove or reduce imminent risk of serious personal injury or damage to infrastructure posed by the vegetation and only to the extent necessary to mitigate the risk. This action to be undertaken in accordance with the relevant legislative requirements in place at the time of clearing</p>
<p>Performance Indicators</p>	<p>2.2.3.1 Vegetation composition retains structural attributes of forest or woodland, and maintains koala food tree species diversity recorded by baseline survey 2.2.3.2 Weed cover (shrub, tree and vine) does not exceed baseline levels by more than 10% 2.2.3.3 Offset area is legally secured as an area of High Conservation Value under section 19F of the vegetation management act 1999</p>
<p>Monitoring</p>	<p>2.2.4.1 Baseline assessment of koala food tree species richness to be undertaken within 6 months of the offset area being legally secured 2.2.4.2 Baseline assessment of offset area weed infestation levels (shrub, tree and vine species) to be undertaken within 6 months of the offset area being legally secured</p>

	<p>2.2.4.3 Weed assessment and monitoring to be undertaken annually, during spring or summer to optimise detection</p> <p>2.2.4.4 If livestock are kept on the balance of the property, the offset area fencing to be monitored on a monthly basis</p>
Reporting	<p>2.2.5.1 Monitoring results to be recorded in annual Offset Area Assessment Report</p> <p>2.2.5.2 The location, extent and associated purpose for any vegetation clearing undertaken within the offset area will be detailed within the annual Offset Area Assessment Report</p> <p>2.2.5.3 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.2.5.4 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective Action	<p>2.2.6.1 Supplementary planting/assisted natural regeneration of koala food trees to be undertaken where koala food tree species diversity is recorded to have declined from baseline levels</p> <p>2.6.2 Weed control to be undertaken in accordance with accepted best practice principles</p> <p>2.2.6.3 If livestock-proof fencing is breached: Within 7 days livestock will be removed from offset area and temporary fencing measures put in place to ensure livestock are excluded and permanent repairs can be completed Within 28 days: repairs to fencing undertaken to achieve a koala-friendly livestock-proof standard</p>
Term	<p>2.2.7.1 Baseline monitoring for koala food tree species richness to be undertaken within 6 months of the offset area becoming legally secured</p> <p>2.2.7.2 Subsequent koala food tree species richness monitoring to be undertaken every 5 years for the life of the offset</p> <p>2.2.7.3 Subsequent weed assessments and monitoring to be undertaken annually during the active management period</p>

APPENDIX 3 Photos of weed transects

2017	2018
Transect 12 - improved	
 <p data-bbox="363 1099 528 1133">1% <i>L. camara</i></p>	 <p data-bbox="1054 1099 1219 1133">0% <i>L. camara</i></p>
Transect 24 - improved	
 <p data-bbox="363 1995 528 2029">4% <i>L. camara</i></p>	 <p data-bbox="1054 1995 1219 2029">0.2% <i>L. camara</i></p>

Transect 25 - improved



1% *L. camara*



0% *L. camara*

Transect 26 - improved



4.8% *L. camara*



3% *L. camara*

Transect 29 - NA

NA



0.4% *L. camara*

APPENDIX 4

Table 2.3 Habitat connectivity from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 16-17.

Outcomes	<p>2.3.1.1 Maintain contiguous landscapes to allow koalas to establish new territories, facilitate gene flow and respond to environmental changes</p> <p>2.3.1.2 Permanently remove existing threat of habitat degradation associated with clearing, development or other incompatible land uses</p> <p>2.3.1.3 Contribute to koala movement and dispersal through the Flinders Karawatha corridor through the establishment of a protected habitat corridor (minimum 700m width)</p>
Actions	<p>2.3.2.1 To remove the risk of habitat degradation associated with clearing, development or other incompatible land uses, the entire 161.11 ha offset area will be managed for conservation purposes</p> <p>2.3.2.2 Vegetation clearing will not be undertaken within the offset area under any circumstance, except the following:</p> <ul style="list-style-type: none"> • Where necessary for the removal of weeds • To establish and maintain fencing around the boundary of the offset area in accordance with relevant legislation • To establish and maintain firebreaks and fire trails in accordance with an Offset Area Bushfire Management Plan that has been prepared by a suitably qualified professional and relevant legislation • To remove or reduce imminent risk of serious personal injury or damage to infrastructure posed by the vegetation and only to the extent necessary to mitigate the risk. This action to be undertaken in accordance with the relevant legislative requirements in place at the time of clearing <p>2.3.2.3 The subject property boundary is currently fenced in koala-permeable fencing. Any new or replacement fencing is to be 'fauna-friendly' in accordance with a relevant guidelines</p>
Performance indicators	<p>2.3.3.1 Offset area is legally secure as an area of High Conservation Value under section 19F of the Vegetation Management Act 1999</p>
Monitoring	<p>2.3.4.1 Firebreaks and fire control lines to be inspected at a minimum quarterly frequency or after major storm events</p>
Reporting	<p>2.3.5.1 The location, extent and associated purpose for any vegetation clearing undertaken within the offset area will be detailed within the annual Offset Area Assessment Report</p> <p>2.3.5.2 Any change to site connectivity is to be detailed within the annual Offset Area Assessment Report</p> <p>2.3.5.3 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.3.5.4 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective Action	<p>2.3.5.5 In the event of a koala entanglement in fencing, the 'problem area' is to be retro-fitted with an appropriate control measure as per those described in relevant guidelines</p>

APPENDIX 5

Table 2.4 Threat to koala from wild dogs from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 17-19.

Outcome	2.4.1.1 Reduction of risk of koala mortality or injury by dog attack within the offset area through reduction in wild dog abundance
Actions	<p>2.4.2.1 Initial survey to establish a baseline of wild dog abundance within the offset area. The survey method used for the initial abundance survey will be informed using best practice methodology and applicable guidelines available at the time of survey and will be undertaken within 6 months of the offset being legally secured</p> <p>2.4.2.2 Baseline predator abundance survey is to be undertaken by a suitably qualified person</p> <p>2.4.2.3 Offset area wide wild dog control program to be undertaken with the aim of removing all wild dogs from the offset area. The specific control method will be informed by the results of the initial wild dog abundance survey. Where practicable and to increase the effectiveness of a control program the landholder will seek to coordinate control programs with comparable activities being undertaken by neighbouring landholders.</p> <p>2.4.2.4 Post the initial control event, presence/absence surveys for wild dogs to be undertaken each two months</p> <p>2.4.2.5 Post initial control event, abundance surveys for wild doges to be undertaken bi-annually by suitably qualified person</p> <p>2.4.2.6 Where post control surveys indicate there has been a recurrence of wild doges within the offset area, control measures will be actioned using methods (controlled shooting or baiting) determined by a pest control professional in consideration of monitoring results</p> <p>2.4.2.7 Any injured koala found on the site will be sent to a veterinary clinic/wildlife rescue facility for rehabilitation</p> <p>2.4.2.8 Installation of appropriate hazard warning signage indicating the offset area is subject to dog control for the purpose of managing the offset site for the benefit of koalas</p>
Performance Indicators	<p>2.4.3.1 Data collected from the initial control action to indicate the successful reduction of wild dog density (based on control method data e.g. bait takes, kills from shooting)</p> <p>2.4.3.2 No records of feral dog abundance within the site</p> <p>2.4.3.3 No records of injury and or death to koala relating to dog attacks recorded from within the offset area</p>
Monitoring	<p>2.4.4.1 Offset area-wide traverse every two months to record the presence/absence of signs of wild doges (including scats). The monitoring will take place along a set route utilising the existing network of tracks within the offsets area (e.g. fire control lines) to allow for replication of the monitoring events</p> <p>2.4.4.2 Bi-annual abundance surveys to be undertaken by a suitably qualified professional</p> <p>2.4.4.3 Opportunistic monitoring of koala/dog interactions in the form of injured, koala mortality records</p>
Reporting	<p>2.4.5.1 Wild dog abundance baseline survey results will be incorporated within the initial annual Offset Area Assessment Report</p> <p>2.4.5.2 Results of all presence/absence surveys will be reported upon on an annual bases as a component on the Annual Offset Areas Assessment Report</p> <p>2.4.5.3 All records of koala injury or death resulting from a dog attack are to be reported within the annual Offset Areas Assessment Report</p> <p>2.4.5.4 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of initial baseline survey</p> <p>2.4.5.5 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective action	<p>2.4.6.1 Should the efficacy of the initial and ongoing wild dog control measure no result in a reduction of wild dog numbers (based on initial baseline survey), alternative and/or additional control measures will be implemented and the efficacy evidenced through the ongoing monthly/quarterly monitoring survey results</p> <p>2.4.6.2 Any incidence of koala injury/mortality resulting from a dog attack will initiate supplementary monitoring and control measures in addition to the scheduled monthly and quarterly monitoring</p> <p>2.4.6.3 Any required adaptation to wild dog management measures in response to failure to meet the objectives of the OAMP are to be approved by a suitably qualified person</p>

APPENDIX 6

Table 2.5 Threat to koala from feral cats and foxes from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 19-20.

Outcome	2.5.1.1 Reduction of risk of koala mortality or injury by feral cat or fox attack within the offset area through reduction in feral cat or fox abundance
Actions	<p>2.5.2.1 Initial survey to establish a baseline of feral cat or fox abundance within the offset area. The survey method used for the initial abundance survey will be informed using best practice methodology and applicable guidelines available at the time of survey and will be undertaken within 6 months of the offset being legally secured</p> <p>2.5.2.2 Baseline predator abundance survey is to be undertaken by a suitably qualified person</p> <p>2.5.2.3 Offset area wide feral cat or fox control program to be undertaken with the aim of removing all feral cat or foxes from the offset area. The specific control method will be informed by the results of the initial feral cat or fox abundance survey. Where practicable and to increase the effectiveness of a control program the landholder will seek to coordinate control programs with comparable activities being undertaken by neighbouring landholders.</p> <p>2.5.2.4 Post the initial control event, presence/absence surveys for feral cat or foxes to be undertaken each two months</p> <p>2.5.2.5 Post initial control event, abundance surveys for feral cat or foxes to be undertaken bi-annually by suitably qualified person</p> <p>2.5.2.6 Where post control surveys indicate there has been a recurrence of feral cat or foxes within the offset area, control measures will be actioned using methods (controlled shooting or baiting) determined by a pest control professional in consideration of monitoring results</p> <p>2.5.2.7 Any injured koala found on the site will be sent to a veterinary clinic/wildlife rescue facility for rehabilitation</p> <p>2.5.2.8 Installation of appropriate hazard warning signage indicating the offset area is subject to feral cat or fox control for the purpose of managing the offset site for the benefit of koalas</p>
Performance Indicators	<p>2.5.3.1 Data collected from the initial control action to indicate the successful reduction of feral cat or fox density (based on control method data e.g. bait takes, kills from shooting)</p> <p>2.5.3.2 No records of feral cat or fox abundance within the site</p> <p>2.5.3.3 No records of injury and or death to koala relating to feral cat or fox attacks recorded from within the offset area</p>
Monitoring	<p>2.5.4.1 Offset area-wide traverse every two months to record the presence/absence of signs of feral cat or foxes (including scats). The monitoring will take place along a set route utilising the existing network of tracks within the offsets area (e.g. fire control lines) to allow for replication of the monitoring events</p> <p>2.5.4.2 Bi-annual abundance surveys to be undertaken by a suitably qualified professional</p> <p>2.5.4.3 Opportunistic monitoring of koala/feral cat or fox interactions in the form of injured, koala mortality records</p>
Reporting	<p>2.5.5.1 Feral cat or fox abundance baseline survey results will be incorporated within the initial annual Offset Area Assessment Report</p> <p>2.5.5.2 Results of all presence/absence surveys will be reported upon on an annual bases as a component on the Annual Offset Areas Assessment Report</p> <p>2.5.5.3 All records of koala injury or death resulting from a feral cat or fox attack are to be reported within the annual Offset Areas Assessment Report</p> <p>2.5.5.4 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of initial baseline survey</p> <p>2.5.5.5 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective action	<p>2.5.6.1 Should the efficacy of the initial and ongoing feral cat or fox control measure no result in a reduction of feral cat or fox numbers (based on initial baseline survey), alternative and/or additional control measures will be implemented and the efficacy evidenced through the ongoing monthly/quarterly monitoring survey results</p> <p>2.5.6.2 Any incidence of koala injury/mortality resulting from a feral cat or fox attack will initiate supplementary monitoring and control measures in addition to the scheduled monthly and quarterly monitoring</p> <p>2.5.6.3 Any required adaptation to feral cat or fox management measures in response to failure to meet the objectives of the OAMP are to be approved by a suitably qualified person</p>

APPENDIX 7 – IMAGES FROM WILDLIFE MONITORING CAMERAS

Wild dogs – *Canis lupus*



Summer 2017



Winter 2018

Fox – *Vulpes vulpes*



Summer 2017



Winter 2018

Pig – *Sus scrofa*



Summer 2017



Winter 2018

APPENDIX 8

Table 2.6 Threat to koala from vehicle strike from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 20-21.

Outcome	2.6.1.1 Contribute to the reduction of risk of injury or death to koala in relation to vehicle strike both within the offset area and on adjacent roads
Actions	<p>2.6.2.1 Installation of koala awareness signage on the property boundary adjacent to unnamed public road that bisects the offset area to alert traffic of the koala offset area and the presence of koalas in the local area prior to the offset area being legally secured</p> <p>2.6.2.2 Installation of koala awareness signage on the property boundary adjacent to the unnamed public road along the frontage to Lot 89 RP892014 to alert east bound traffic of the presence of koalas in the area prior to the offset area being legally secured</p> <p>2.6.2.3 Installation of koala awareness signage on the property boundary adjacent to Mount Flinders Road along the frontage to Lot 86 RP892014 to alert west-bound traffic of the presence of koalas in the local areas within 6 months of the offset being legally secured</p> <p>2.6.2.4 Implementation of a slow speed requirement (40km/h) for vehicles traversing the offset area</p> <p>2.6.2.5 Installation of slow speed signage at the main entry points to the offset area</p>
Performance Indicators	2.6.3.1 No koala mortalities from vehicle strike within the offset area
Monitoring	2.6.4.1 Any observed koala injury/mortality on roads/tracks within the offset area or roads that front Lots 86, 87, 88 or 89 RP892014 to be recorded
Reporting	<p>2.6.5.1 Incident to be reported to: Local Government authority (e.g. currently Beaudesert Regional Council) Relevant State Government department (e.g. currently the DoEHP)</p> <p>2.6.5.2 Incident to be recorded in annual Offset Area Assessment Report</p> <p>2.6.5.3 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.6.5.4 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective Action	<p>2.6.6.1 Injured animals to be transported to a vet or suitably qualified and experienced wildlife carer as soon as possible</p> <p>2.6.6.2 Capture and method of transport for injured animals will be in accordance with accepted best practice principles at time of incident: Relevant local or state government websites Non-profit koala organisations</p>

APPENDIX 9

Table 2.7 Threat to koala via barriers to dispersal from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 22-23.

Outcomes	<p>2.7.1.1 Maintain and improve contiguous landscapes to allow koalas to establish new territories, facilitate gene flow and respond to environmental changes</p> <p>2.7.1.2 Retain and enhance the structure and floristic diversity of canopy vegetation</p> <p>2.7.1.3 Retain and enhance the structure and floristic diversity of middle and understorey vegetation</p> <p>2.7.1.4 Ongoing retention and recruitment of koala food trees</p> <p>2.7.1.5 Permanently remove existing threat of habitat degradation associated with clearing, development or other incompatible land uses</p> <p>2.7.1.6 Contribute to koala movement and dispersal through the Flinders Karawatha through the establishment of a protected habitat corridor (minimum 700m width)</p>
Actions	<p>2.7.2.1 To remove the risk of habitat degradation associated with clearing, development or other incompatible land uses, the entire 161.11ha offset area will be legally secured as an area of High Conservation Value under section 19F of the vegetation management act 1999</p> <p>2.7.2.2 Given that the subject property boundary is currently fenced in koala permeable fencing, livestock will be excluded from the offset area through at least one of the following mechanisms: Livestock will not be kept within the balance areas of Lots 87 or 88 RP892014 Koala friendly fencing will be erected along the northern boundary of the offset area to exclude livestock grazing outside of the offset area yet within the subject property in accordance with a relevant guideline</p> <p>2.7.2.3 Domestic livestock will only be introduced in the event that a fire risk professional (e.g. representative of Qld Rural Fire Service) and a suitably qualified environmental scientist deem that conditions are not suitable for an ecological burn and that grazing is appropriate to manage a high level of fire risk (and any need to repeat this grazing cycle) is to be re-assessed by the aforementioned professionals following the grazing event.</p> <p>2.7.2.4 Any fencing installed or replaced within the offset area is to be fauna-friendly in design as per a relevant guideline</p> <p>2.7.2.5 Vegetation clearing will not be undertaken within the offset area under any circumstances except the following: Where necessary for the removal of weeds To establish and maintain fencing around the boundary of the offset area To establish and maintain firebreaks and fire trails in accordance with an Offset Area Bushfire Management Plan that has been prepared by a suitably qualified professional To remove or reduce imminent risk of serious personal injury or damage to infrastructure posed by the vegetation and only to the extent necessary to mitigate the risk</p>
Performance indicators	<p>2.7.3.1 Offset area is legally secured as an area of High Conservation Value under section 19F of the vegetation management act 1999</p>
Monitoring	<p>2.7.4.1 If livestock are kept on the balance of the property, offset are fencing to be monitored on a monthly basis</p> <p>2.7.4.2 Firebreaks and fire control lines to be inspected at a minimum quarterly frequency and after major storm events</p>
Reporting	<p>2.7.5.1 The location, extent and associated purpose for any vegetation clearing or damage through natural disaster within the offset area will be detailed within the annual Offset Area Assessment Report</p> <p>2.7.5.2 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.7.5.3 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective Action	<p>2.7.5.4 If livestock are kept on the balance of the property and livestock proof fencing is breached: Within 7 days: livestock will be removed from offset area and temporary fencing measures put in place to ensure livestock are excluded until permanent fence repairs can be completed Within 28 days: Repairs to fencing undertaken to achieve koala-friendly livestock-proof standard</p>

APPENDIX 10

Table 2.8 Threat to koala habitat through hydrological change from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 23-24.

Outcome	2.8.1.1 To ensure the koala habitat within the offset area is maintained and the potential carrying capacity of the area is not reduced due to anthropogenic hydrological change
Actions	2.8.2.1 If any actions are proposed that may significantly impact the current (at time of offset area being legally secured) hydrological regime and therefore potentially impact koala habitat within the offset area then the following actions will be required: Presentation of proposed hydrological change to DoE, detailing the potential impact koala habitat within the offset area. This will include specialist reports detailing the nature of the hydrological change and the expected impact to the offset areas vegetation communities Only DoE approved hydrological change will be permitted within the offset area
Performance Indicators	2.8.3.1 The overall performance indicator resulting from the stated actions will be no significant impact to koala habitat as a result of hydrological change within the site
Monitoring	2.8.4.1 Where DoE approved hydrological change has occurred within the offset area, monitoring of the impact to the sites vegetation communities will be a component of annual site assessment
Reporting	2.8.5.1 The annual Offset Area Assessment Report will present details relating to requested hydrological change requests made to DoE 2.8.5.2 Assessment of vegetation in relation to potential impacts resulting from hydrological change will be presented within the Annual Offset Area Assessment Report
Corrective Action	2.8.6.1 Only DoE-approved actions which could potentially significantly impact the hydrological status quo within the offset area are permissible. Should it be determined that there is an impact to koala habitat from hydrological change (as evidenced through annual vegetation assessments) then corrective actions, as determined by a suitably qualified professional within affected areas will occur

APPENDIX 11

Table 2.9 Threat to koala through fire from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 24-26.

Outcomes	<p>2.9.1.1 Minimise the risk of high intensity fire within the offset area</p> <p>2.9.1.2 Minimise the risk of koala mortality within the offset area due to prescribed burning</p>
Actions	<p>2.9.2.1 A suitably qualified professional will prepare an Offset Area Bushfire Management Plan, detailing: current vegetation condition and fire risk, locations of current and required firebreaks and fire control lines, current fuel loads, recommended actions and timeframes for maintenance of bushfire risk within the context of the adapted Regional Ecosystem Description Database guidelines (refer below) and biodiversity outcomes sought for the offset area.</p> <p>2.9.2.2 With the exception of prescribed burning, which will only be undertaken for the purposes of biodiversity enhancement, the offset area is to be managed to avoid the occurrence of fire by: Maintaining fire control lines relative to the offset area; and Co-locating fire control lines with existing tracks and fence lines on the property where possible</p> <p>2.9.2.3 Existing fencing, firebreaks and fire control lines are to be kept clear of encroaching vegetation to a width as defined by the Offset Area Bushfire management Plan and in accordance with relevant legislation (e.g. Sustainable Planning act 2009)</p> <p>2.9.2.4 Vegetation within the offset area will be managed in accordance with the following specifications, which are adapted from the Regional Ecosystem Description Database fire management guidelines for the two vegetation types that occur within the offset area (RE 12.9-10.2 and RE 12.9-10.7) SEASON: Summer to winter INTENSITY: Low to moderate INTERVAL: 4-25 years STRATEGY: 40-60% mosaic burn. Burn with soil moisture and with a spot ignition strategy so that a patchwork of burn/unburn country is achieved ISSUES: The fire regime will maintain a mosaic of grassy and shrubby understoreys. Ground litter and fallen timber habitats will be maintained by burning only with sufficient soil moisture. Burning will produce fine scale mosaics of unburnt areas. Variability in season and fire intensity will occur, as well as spot ignition in cooler or moister periods to encourage mosaics.</p> <p>2.9.2.5 The following parameters will be adhered to throughout the planning and implementation of any prescribed burning: Undertake pre-burn survey to identify areas of high koala activity; No prescribed burning will be undertaken when female koalas are likely to be carrying dependent young Prescribed burning will only be carried out during appropriate weather conditions (e.g. low temperature, low wind, high soil moisture) Post-fire practices will be implemented to mitigate the risk of uncontrolled fire damage (e.g. extinguishing burning of large trees) Minimise the extent of burning so that the risk of injury or mortality to koalas is reduced, the risk of canopy scorch is lowered, whilst other biodiversity benefits to other species are achieved</p> <p>2.9.2.6 Prescribed burning will be undertaken in consultation with, and under the guidance of the Queensland Rural Fire Brigade</p> <p>2.9.2.7 Domestic livestock will only be introduced in the event that a fire risk professional and environmental scientist deems that conditions are not suitable for an ecological burn. In this event, a maximum of 12 head of domestic livestock may be introduced for no more than 3 consecutive weeks.</p>
Performance Indicators	<p>2.9.3.1 Fuel levels and burning regime maintained in accordance with Offset Area Bushfire Management Plan</p>
Reporting	<p>2.9.4.1 Offset Area Bushfire Management Plan will be prepared within 6 months of the offset area being legally secured</p> <p>2.9.4.2 Monitoring results and maintenance log will be detailed within the annual Offset Area Assessment Report</p> <p>2.9.4.3 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.9.4.4 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>

Corrective action	2.9.5.1 If a wildfire occurs, the following actions will be taken by the landowner to remedy the situation: Inspect the fencing, undertake any repairs required to ensure livestock-proof standard Inspect fire control lines, undertake maintenance required to achieve compliance with the Offset Area Bushfire Management Plan Remove all livestock from the offset area within 7 days of commencing remedial action Engage suitably qualified professional to assess offset area and update Offset Area Bushfire Management Plan
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APPENDIX 12

Table 2.10 Treat to koala and habitat from disease and pathogens from the Offset Area Management Plan, New Ground 2014b, NGID-3695-28, version 16.0, pp. 26-27.

Outcome	<p>2.10.1.1 Reduce risk of the spread of koala and vegetation diseases within the offset area and adjacent areas of koala habitat</p> <p>2.10.1.2 Third party contractors do not enter the site carrying pathogens</p>
Actions	<p>2.10.2.1 Baseline offset area condition survey is to include assessment for signs of Phytophthora cinnamomi and myrtle rust and is to be undertaken within six months of securing the offset area</p> <p>2.10.2.2 To reduce the risk of introducing Chlamydia and Koala retrovirus into the resident population; uncontrolled translocation of koala is not permitted within the offset area</p> <p>2.10.2.3 Vegetation management activities which include tree lopping/felling, weed removal, tree planting (including nursery suppliers) are deemed to be high risk in the context of introducing pathogens that may potentially impact koala habitat. As such, any person engaged to undertake these activities must satisfy the landholder that they have undertaken all reasonable steps to prevent the introduction of pathogen/disease to the site (e.g. vehicle equipment washdown prior to site entry)</p>
Performance Indicators	<p>2.10.3.1 In the event that regulator approved translocation of koala is proposed on the site the animal is to be assessed by a veterinarian prior to introduction</p> <p>2.10.3.2 Incidence of koala feed trees exhibiting disease to be recorded if encountered during any monitoring events within the offset area</p>
Monitoring	<p>2.10.4.1 Incidence of koalas exhibiting disease to be recorded if encountered during any monitoring events within the offset area</p>
Reporting	<p>2.10.4.1 Baseline data concerning observations around koala and koala habitat diseases and pathogens is to be documented within initial annual Offset Area Assessment Report</p> <p>2.10.4.2 Confirmation of translocation activity within the offset area is to be included within annual Offset Area Assessment Reports</p> <p>2.10.4.3 Incidence of koalas exhibiting symptoms of disease to be reported within annual Offset Area Assessment Report</p> <p>2.10.4.4 All annual Offset Area Assessment Reports are to be submitted to DoE on an annual basis within three months of the anniversary of the completion of the initial baseline survey</p> <p>2.10.4.5 All annual Offset Area Assessment Reports and any records of non-compliance are to be submitted to DoE via email</p>
Corrective action	<p>2.10.5.1 Should there be an increase in trees exhibiting disease symptoms and/or evidence of vegetation dieback (as noted during annual offset area assessments) the following corrective actions will take place:</p> <p>Review of the efficacy of current biosecurity measures</p> <p>Review of plant stock/management services suppliers should it be suspected plant pathogens have been introduced via external sources.</p>

APPENDIX 12

KOALA MANAGEMENT AND RESCUE PROTOCOL QTFN-KC-010115

If injured or orphaned koalas are found, note its condition and location and contact the following **emergency phone number**:

- Ipswich Koala Protection Society operate two 24/7 ambulances
- RUTH LEWIS - 0419 760 127/ 5464 6274.
- HELEN DARBELLAY – 0490 005 948/3282 5035.

IKPS is licenced with EHP to care for injured and orphaned wildlife, specialising in koala rescue and rehabilitation. They have appropriate facilities and members who are appropriately skilled and have access to reliable sources of a variety of recognised koala food tree species and an ability to collect it.

Other wildlife emergency numbers:

- RSPCA Qld on 1300 ANIMAL, 1300 264 625. *RSPCA will usually refer calls to IKPS.*
- Australia Zoo Wildlife Hospital 1300 369 652. *Based on the Sunshine Coast.*

SYMPTOMS OF SICK OR INJURED KOALAS

- Puffy or inflamed eyes which may have a crust or a weepy discharge surrounding them;
- Dribbling saliva from the mouth;
- Fur that appears constantly wet or matted;
- A dirty tail with brown staining;
- Weakness or unusual behaviour;
- Remaining in the same tree for more than a few days;
- Sitting on the ground or very low down in a tree and not moving when approached. (This may indicate that the animal is too weak to climb);
- Not using all four limbs normally while walking or climbing;
- Very skinny and emaciated appearance;
- Signs of trauma such as cuts or blood on fur.

Signs of a dog attack could be wet, matted fur from the dog's saliva, and bleeding. Because koalas have very little fat under their skin, their internal organs can be easily punctured by the sharp teeth of a dog even though there may be very little damage to the skin surface, so it is very important that the animal is assessed by a vet or carer if a koala is found that is suspected to have been the victim of a dog attack.

PROTOCOL FOR ROAD INJURIES OR DOG ATTACKS

Follow the instructions below for road injuries in handling sick or orphaned koalas or koalas which have been attacked by dogs or injured in some other way. However, unless the koala is in immediate danger, it is better to leave it to the experts to catch it if they think it necessary.

For road injuries:

1. Pull off the road safely. If possible, phone the IKPS for instructions.
2. Make sure it is safe before you go onto the road to attend to the animal. Stop any traffic if necessary.
3. Approach the animal carefully from behind.
4. Place a sack, blanket, towel or box over the koala, enclosing its arms and head. Remember, the koala is frightened and has very sharp claws, so be careful. Injured or orphaned animals need immediate dark, warmth and quiet. They may never have been touched by humans and any stress can cause further injury and death from shock. Also you may be injured.
5. Move the animal to a safe place away from any traffic.
6. Handle the koala as little as possible and keep the environment quiet. Keep it contained until help arrives or you get it to a Vet or Carer.
7. Keep people and dogs away from the animal. Do not allow people to peek at or touch it.
8. Do not try to feed the koala or give it anything to drink.

PROTOCOL FOR DEAD KOALAS

The information on the death of a koala is valuable to record, and samples from these koalas can contribute to research. IKPS will collect dead koalas as well as sick/injured/orphaned. Accurate records can and have made significant impacts and changes to the future conservation and protection of koala habitat. IKPS collects and records data, statistics and produces mapping of koala habitat and populations.

Look for ear tags which may have been placed by wildlife authorities or researchers so they can be notified of the death. Collect all relevant information, where possible, such as location, cause of death, date, sex and age of koala (age can only be determined by looking at teeth – this is done post mortem).

Samples can be made available for research, where possible. All koalas should be autopsied where cause of death is not positively known. An option that can possibly be utilised is the calling the Moggill Koala Hospital on 3202 0267. The Moggill Koala Hospital is the involved in ongoing koala research alongside University of Queensland researchers and scientists. Australian Zoo Wildlife Hospital on the Sunshine Coast (1300 369 652) also conducts autopsies.

Always check in the pouch of a dead female Koala for the **presence of a joey** which may have survived. Call one of the wildlife emergency phone numbers and ask for instructions on what to do. If not able to contact someone, follow the procedure below:

- If the joey is still attached to the teat, do not remove it as you may cause injury to the tiny baby. Get the dead mother and joey to a vet, or carer as soon as possible.
- If the joey is not attached, gently remove it from the pouch and wrap it in a towel or article of clothing and place it somewhere warm, such as under your jumper. (Very young joeys rely on their mother's body heat for warmth.) Alternatively use a warm hot water bottle or a plastic bottle filled with warm water. Use warm, not hot, water and cover the bottle with a jumper or other fabric so that you do not overheat or burn the joey. A backpack lined with soft towels or fabric is a good way to transport the infant.
- Handle the infant as little as possible and do not let other people peek at it or handle it. Remember, these tiny infants can die very easily from stress and noise.
- Do not give the joey anything to drink. Young Koalas need a specialised diet and feeding the wrong formula could cause the infant to die.
- Get the joey to a vet or carer as soon as possible (Contact IKPS as soon as possible.)

RECORD KEEPING

All koalas observed on the property will be recorded. Information to be collected includes date, time, GPS location, type of tree, condition of koala, sex if known and behaviour.

Copies of records will be provided to the Moggill Koala Hospital, State Government database, Wildnet, and to the Ipswich Koala Protection Society on a regular basis. Sightings will be recorded on Koala Record Sheets provided by EHP.

EPBC2014/7190 Stage 1b : Compliance Summary to 01 February 2019

Relevant actions & monitoring requirements	Reporting requirement	Compliant
Conduct a baseline koala density survey within the offset area within 12 months of the offset area being legally secured	Incorporate the koala density survey results within the relevant Offset Area Assessment Report	Survey scheduled for March 2019
Outside of the formal koala density survey event, opportunistic koala sightings to be recorded (location and date) within the Annual Offset Area Assessment Report	Opportunistic koala sightings to be incorporated into the Annual Offset Area Assessment Report	Observations began 2018
Incorporate offset area into property Bushfire Management Plan within 6 months of the offset area being legally secured & install firebreaks	NA	Y
Retain all vegetation in remnant and mature regrowth areas except where necessary for the removal of weeds	NA	Y
Undertake baseline Tertiary Vegetation Condition Assessments, including photo point monitoring	NA	Plots marked, monitoring to begin in March 2019
Implement a revegetation program in cleared areas using best practice techniques with tree and shrub species representative of the pre-clearance Regional Ecosystem including koala food and shelter trees	NA	Y
Implement a weed management plan	NA	Y
Legally secure the offset area by way of voluntary declaration under the Vegetation Management Act 1999	NA	Y August 2018
Monitoring of weed infestations; adaptive management of shrub, tree and vine weed species if required.	Weed cover (shrub, tree and vine species) does not exceed baseline levels by more than 10%. Monitoring results to be recorded in annual Offset Area Assessment Report.	Plots marked, monitoring to begin in March 2019
Conduct a baseline survey to establish feral animal abundance and location on the property. This can be undertaken through the use of remote motion-activated cameras and/or identification of scats.	NA	First monitoring season Jan 2019
Implement a feral animal control program.	NA	Y
Set-up a community engagement program including but not limited to interpretive signs, fact sheets and community presentations with the aim to raise community awareness and encourage responsible pet ownership	NA	Y
Any observed koala injury/mortality on roads/tracks within the offset area or roads that front Lots 86, 87, 88 or 89 RP892014 to be recorded.	Incident to be recorded in annual Offset Area Assessment Report.	Y
Installation of koala awareness signage on Mount Flinders Road to inform traffic in both directions of presence of koalas in the area within 6 months of offset area being legally by way of voluntary declaration	Negotiations with Scenic Rim council	N
Installation of slow speed signage at the main entry points to the offset area	NA	Y
Document baseline condition survey to include assessment for signs of <i>Phytophthora cinnamomic</i> and Myrtle Rus	NA	Plots marked, monitoring to begin in March 2019
Enforce biosecurity procedures for all persons and vehicles that may carry vegetation pathogens known to affect koala food and shelter tree	NA	Y
Monitor the neighbouring habitat in order to identify disease occurrence	NA	Y
Check property for bell minor associated die-back based on significant presence of lantana and some dieback	NA	Plots marked, monitoring to begin in March 2019

Appendix B

Approved Variation to EPBC 2014/7190
Approval Conditions



Ms Keira Grundy
Environmental Planner
Saunders Havill Group Pty Ltd
9 Thompson Street
BOWEN HILLS QLD 4006

Nambucca Crescent Residential Development (EPBC 2014/7190)

Dear Ms Grundy

Thank you for your email dated 4 June 2018 to the Department, for and on behalf of Sunland Group Pty Ltd, requesting the variation of conditions attached to EPBC approval 2014/7190 dated 25 October 2016.

Officers of this Department have reviewed the request. As delegate of the Minister, I have decided to approve the variation of condition 5, addition of condition 6A, variation of the definition of Offset attributes and addition of Annexure 4 to EPBC Approval 2014/7190 under section 143(1)(c) of the *Environment Protection and Biodiversity Conservation Act 1999* to allow for increased clearing of Koala habitat prior to Stage 2 offsets being legally secured and requiring an additional Stage 1b offsets. The conditions must now be undertaken in accordance with the varied conditions specified in the variation notification, which has been attached for your information.

I also note that you have submitted *Offset Area Management Plan - Stage 1b; EPBC 2014/7190; 23 May 2018*. By approving the above variations and additions I have adopted this plan. This plan must now be implemented. EPBC 2014/7190 condition 10 allows you (under certain circumstances) to implement revised plans without seeking the Minister's approval. If you require any advice on whether or not to submit a revised plan for approval, please contact the officer below. When submitting any revised plan to the Minister under condition 10, please provide a 'tracked changes' version of the plan. I also attach a fact sheet providing guidance on 'new or increased impact' relating to changes to approved management plans under EPBC Act environmental approvals.

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

Should you require any further information please contact Robin Nielsen, Senior Project Officer, Post Approvals Section, on 02 6274 1004 or by email: post.approvals@environment.gov.au.

Yours sincerely



Chris Videroni
Acting Assistant Secretary
Assessments (WA, SA and NT) and Post Approvals Branch
Environment Standards Division

2 July 2018

Att.

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



Guidance on 'New or Increased Impact' relating to changes to approved management plans under EPBC Act environmental approvals

Introduction

This guidance is for those environmental approvals under Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) containing an approval condition which uses the reference 'new or increased impact' in relation to revisions to approved management plans. This condition, referred to in this document as the Revised Management Plan (RMP) condition, allows revised plans to be implemented without approval by the Minister, provided that the proposed changes do not have a new or increased impact on matters protected under the approval.

The aim of this guidance is to assist approval holders and officers of the Department in determining whether or not a change is likely to have a 'new or increased impact' on a protected matter.

Background

Many EPBC Act Part 9 approvals include conditions for management plans, strategies or programs to be implemented, and usually these documents must be submitted for approval by the Minister prior to implementation. For the purposes of this guidance, such documents are referred to collectively as 'plans'.

Section 143A of the EPBC Act allows an approval holder to submit revisions to approved plans for re-approval by the Minister in certain circumstances. In some cases, revisions to approved plans under section 143A will incur a fee under cost recovery provisions of the EPBC Act and regulations.

From late 2015, the RMP condition was included in new approvals where appropriate, and in some cases the RMP condition has been retrospectively added to projects with an existing EPBC Act approval through formal variations to conditions.

In approvals that have the revised management plan condition, a 'new or increased impact' is typically defined as: *a new or increased impact on any matter protected by the controlling provisions for the action, when compared to the plan, program or strategy that has been approved by the Minister.*

In broad terms, section 527E of the EPBC Act defines the term 'impact' as an 'event or circumstance' that is a direct or indirect result of the action taken by the approval holder or someone acting on behalf of the approval holder. A 'new or increased impact' in the context of the RMP condition is therefore very broad, and includes any direct or indirect increase in the impacts of an action, an increase to the risk of an impact occurring, or a change that reduces the acceptability of an impact such as a change to an environmental offset.

Scope of changes to a plan

Approvals are given for the purposes of one or more controlling provisions described in Part 3 of the EPBC Act, and plans may be required to avoid, mitigate or offset impacts to matters protected under those provisions (protected matters).

In some cases a plan may be required under both Commonwealth and state or territory approvals. It is possible that such a plan may require a revision in relation to state or territory matters only, and the changes may not relate to EPBC Act protected matters.

When considering whether a revised plan would have a new or increased impact, approval holders should have regard to all changes to the approved plan (ie. the latest version of that

plan that was formally approved by the Minister or delegate), not an unapproved revised plan (previously deemed by the approval holder to not have a new or increased impact under the RMP condition) or a plan only approved by the state or territory. In other words, if a revised unapproved plan is being implemented, and further revisions are being considered, all deviations (including incremental or cumulative changes) from the approved plan must be considered when making a decision on whether there is a new or increased impact.

The above emphasises the need to approval holders to use proper version control for plans. Further information about document version control can be found in the Department's Environmental Management Plan Guidelines available on the department's website:

<http://www.environment.gov.au/epbc/publications/environmental-management-plan-guidelines>

The following paragraphs are intended to provide general guidance about the types of changes to plans that are likely to result in a new or increased impact. They are not intended to be exhaustive or definitive. The particular facts and circumstances of a proposed revision to a plan will need to be taken into account in determining whether there is likely to be a new or increased impact.

What is a new impact?

A 'new impact' may be caused by a change to an activity or a change to circumstances surrounding the activity, and can include:

- new activities that may impact on protected matters;
- any change to an activity that creates a new potential impact to a protected matter; or
- an impact to a protected matter that was not previously foreseen.

It should also be noted that in some cases, a new activity may also require a formal variation to approval conditions (under section 143 of the EPBC Act); or may be beyond the scope of an approved action and could require separate EPBC Act approval.

What is an increased impact?

A change to a plan may increase a known impact. An 'increased impact' can include:

- a new activity;
- an increase in the scale, intensity or duration of impacts;
- an increase in the likelihood or consequences of an impact occurring;
- a change to a measure designed to avoid, mitigate or offset an impact;
- a reduced capacity to identify or measure an impact; or
- any other change that increases the risks or uncertainty associated with an impact.

Some changes above may not be considered an 'increase' if the change is a clear improvement.

Examples of a new or increased impact

Although determined on a case-by-case basis, the following changes to a plan are **likely** to result in a new or increased impact:

- The transition from construction phase to operations phase, where the approved plan only covers the construction period.
- Increasing the amount of habitat for a listed threatened species that will be cleared.
- A change in a measure designed to mitigate the impacts of an action on a RAMSAR wetland.
- A delay to the commencement of an environmental offset.
- A change to the timing of a temporary impact, to a time when a listed migratory species is more prevalent.
- A reduction in the frequency of monitoring.

What is unlikely to be a new or increased impact?

Changes unlikely to be a new or increased impact include:

- changes to the structure or layout of a plan or other administrative changes that are unrelated to environmental impacts or risks;
- a change to a plan which does not affect EPBC Act protected matters; or
- a clear improvement to a measure that avoids, mitigates or offsets the impacts of a proposal.

Examples unlikely to be a new or increased impact

Although determined on a case-by-case basis, the following changes to a plan are **unlikely** to result in a new or increased impact:

- Changes to a person's contact details.
- Changes to the name of a plan, or title page of a plan including version number or date.
- Changes to pagination or chapter format where content is not altered.
- Rectification of a clear typographical, grammatical error or mapping error, where the change does not relate to an impact or an avoidance, mitigation or offsetting measure.
- Changes to a plan that covers both state and EPBC Act requirements, and the change only relates to matters protected under state laws.
- The introduction of an additional mitigation measure.
- An increase in the frequency of monitoring.
- A change to the timing of a temporary impact, to a time when a listed migratory species is less prevalent.

Who decides whether a revised plan is likely to have a 'new or increased impact'?

The onus is on the approval holder to decide if a revision to a plan is likely to result in a new or increased impact.

If, after considering this guidance, approval holders are still unsure whether a proposed revision to a plan is likely to result in a new or increased impact, they may request advice or further information from the Department.

When submitting a revised plan under the RMP condition, the approval holder should include a document clearly explaining the revisions (such as a 'tracked changes' version of the plan) and reasoning why they believe that the revisions will not have a new or increased impact.

Approvals that include the RMP condition also include a condition which gives the Minister the power to require implementation of the previously approved plan if the Minister believes that a revision is likely to result in a new or increased impact. In order to reduce the likelihood of the Minister making this decision, the approval holder should contact the Department for advice if they have any doubt about whether a change is likely to result in a new or increased impact.

Option to submit revised plan to Minister for approval

Nothing in the RMP condition prevents an approval holder from choosing to submit a revised management plan to the Minister for formal approval under section 143A of the EPBC Act at any time.

Advice and further information

Approval holders may request advice relating to the matters described in this document by emailing: post.approvals@environment.gov.au



VARIATION TO CONDITIONS ATTACHED TO APPROVAL

Nambucca Crescent Residential Development, Pimpama, Queensland (EPBC No 2014/7190)

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

Approved action

Person to whom the approval is granted	Sunland Group Project Management Pty Ltd ABN: 17 109 074 820
---	---

Approved action	To subdivide and develop for residential development approximately 85 hectares of land at Rifle Range Road approximately 22 kilometres north-west of Surfers Paradise, Pimpama, Queensland (See EPBC Act referral 2014/7190).
------------------------	---

Variation

Variation of conditions of approval	The variation is: Delete condition 5 and the definition of Offset attributes. Insert conditions 5, 6A, definition of Offset attributes, definition of Offset Area Management Plan (Stage 1b) and Annexure 4 specified below.
--	--

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

Person authorised to make decision

Name and position	Chris Videroni Acting Assistant Secretary Assessments (WA, SA, NT) and Post Approvals Branch
--------------------------	--

Signature

Date of decision

12 July 2018

Current conditions and definitions	Varied and added conditions and definitions
<p>5. To offset residual significant impacts to the koala the approval holder must:</p> <p>a. secure the Stage 1 Offset prior to the commencement of the action</p> <p>b. secure the Stage 2 Offset prior to clearing any more than 20.5 ha of koala habitat within the project site.</p> <p>c. provide the Department with the offset attributes, shapefile and map(s) clearly defining the location and boundaries of each offset, within 2 weeks of lodgement of the offset with the Titles Office</p> <p>d. ensure the agreement is registered on the title on which each offset is located, and provide the Department with a signed copy of the agreement and evidence of lodgement with the Titles Office, within 2 weeks of lodgement</p> <p>e. implement the Koala Crossing Fire Management Plan when the Stage 1 Offset is secured.</p>	<p>5. To offset residual significant impacts to the koala the approval holder must:</p> <p>a. secure the Stage 1 Offset prior to the commencement of the action</p> <p>aa. Secure the Stage 1b Offset prior to clearing more than 20.5 ha of koala habitat within the project site</p> <p>b. secure the Stage 2 Offset prior to clearing any more than 25.1 ha of koala habitat within the project site</p> <p>c. provide the Department with the offset attributes, shapefile and map(s) clearly defining the location and boundaries of each offset, within 2 weeks of lodgement of the offset with the Titles Office</p> <p>d. ensure the agreement is registered on the title on which each offset is located, and provide the Department with a signed copy of the agreement and evidence of lodgement with the Titles Office, within 2 weeks of lodgement</p> <p>e. implement the Koala Crossing Fire Management Plan when the Stage 1 Offset is secured.</p>
	<p>6A. To offset the residual significant impacts to the koala, the approval holder must implement the Offset Area Management Plan (Stage 1b). All activities at the Stage 1b Offset must be undertaken in accordance with the Offset Area Management Plan (Stage 1b).</p> <p>The Offset Area Management Plan (Stage 1b) must be implemented within 6 months of the date the Stage 1b Offset is secured. All activities in the Stage 1b offset must be undertaken in accordance with the Offset Area Management Plan (Stage 1b).</p>
Definitions	Definitions
<p>Offset attributes means a '.xls' file capturing relevant attributes of the Stage 1 Offset or Stage 2 Offset sites, including the EPBC reference ID number, the physical address of the Stage 1 Offset or Stage 2 Offset sites, coordinates of the boundary points in decimal degrees, the EPBC Act protected matters that the Stage 1 Offset and Stage 2 Offset compensates for, any additional EPBC Act protected matters that are benefiting from the Stage 1 Offset and Stage 2 Offset, and the size of the Stage 1 Offset and Stage 2 Offset in hectares.</p>	<p>Offset attributes means a '.xls' file capturing relevant attributes of the Stage 1 Offset, Stage 1b Offset or Stage 2 Offset sites, including the EPBC reference ID number, the physical address of the Stage 1 Offset, Stage 1b Offset or Stage 2 Offset sites, coordinates of the boundary points in decimal degrees, the EPBC Act protected matters that the Stage 1 Offset, Stage 1b Offset and Stage 2 Offset compensates for, any additional EPBC Act protected matters that are benefiting from the Stage 1 Offset, Stage 1b Offset and Stage 2 Offset, and the size of the Stage 1 Offset, Stage 1b Offset and Stage 2 Offset in hectares.</p>
	<p>Offset Area Management Plan (Stage 1b) is the document: Queensland Trust for Nature (2018) <i>Offset Area Management Plan (Stage 1b) EPBC 2014/7190</i>; 23 May 2018, Queensland.</p>
	<p>Stage 1b Offset means the 5.1 hectare area of land aside and managed to address residual impacts upon the koala, at Annexure 4.</p>
	<p>Added Annexures</p> <p>Annexure 4 (attached)</p>

Annexure 4 – Stage 1B Offset Area

477782

478757

479732

6925621

6925621

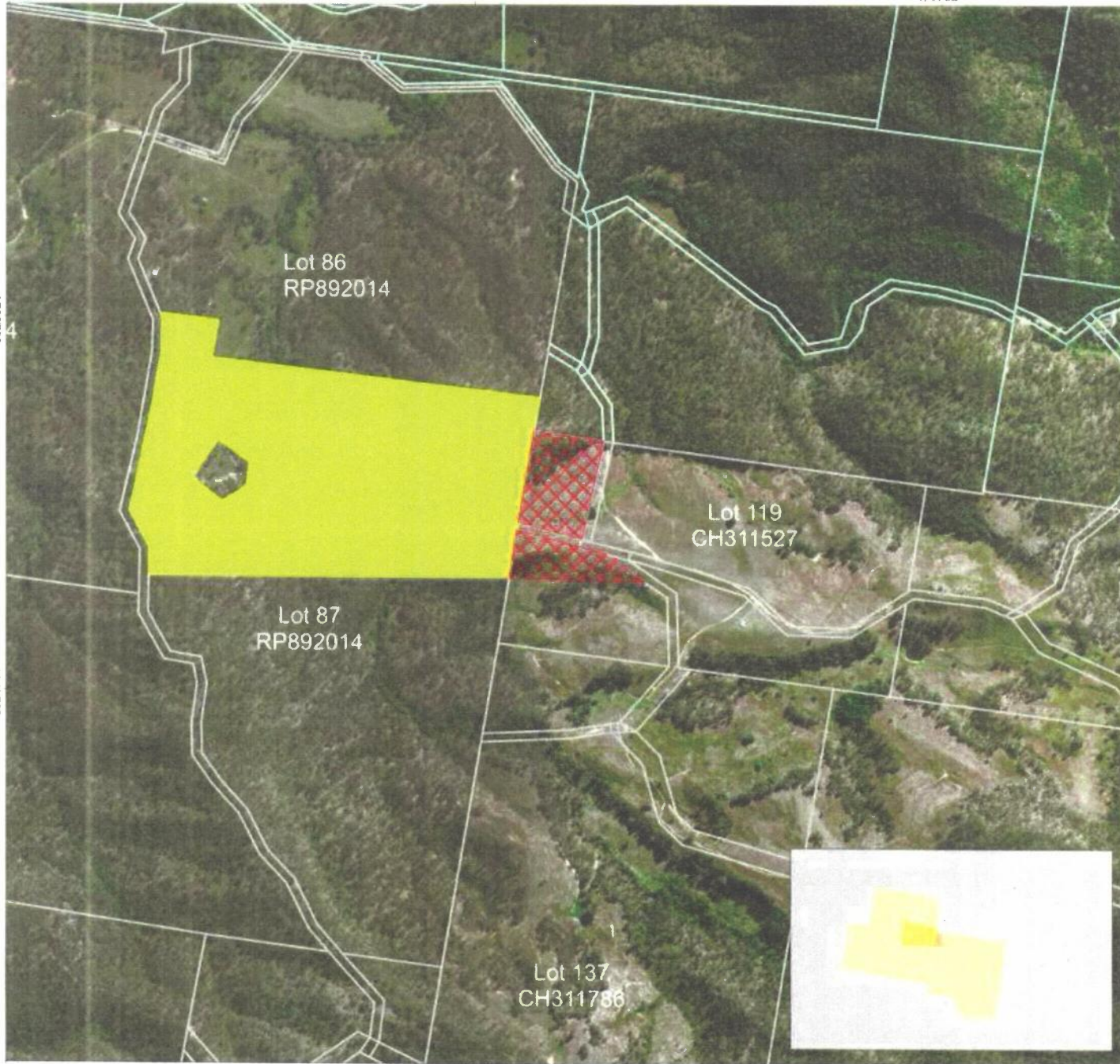
6924741

6924741

477782

478757

479732



Management Units
EPBC 2014/7190
_ Stage 1 and 1B

Lot 119
on CH311527

1:3,035



Legend

-  EPBC 2014/7190_1B
-  EPBC 2014/7190_1

Author: P. Sheppard QTFN
Date: 13/2/18
Source: Geospatial Boundaries
Data supplied by QTFN
<http://qtfntoolkit.information.qld.gov.au/statistics/landcover/index.aspx>
ACCURACY STATEMENT
Due to varying sources of data, spatial locations may not coincide when overlaid.

Appendix C

Stage 1b Offset Area Voluntary
Declaration Package

Keira Grundy

From: Keira Grundy
Sent: Monday, 13 August 2018 10:12 AM
To: Nielsen, Robin
Cc: Blackwell, Peter
Subject: RE: 7341 E FW: Certified Voluntary Declaration 2018/004740 (EPBC 2014/7190) [SEC=UNCLASSIFIED]
Attachments: Dec_Area_pts.shp; Dec_Area_pts.shx; Declared_area.cpg; Declared_area.dbf; Declared_area.shp; Declared_area.sbx; Declared_area.sbn; Declared_area.prj; Declared_area.shx; Dec_Area_pts.cpg; Dec_Area_pts.dbf; Dec_Area_pts.prj; Dec_Area_pts.sbx; Dec_Area_pts.sbn
Categories: Archived

Hi Robin,

I'm not entirely sure why your system is showing a completely different area V-dec area for the Stage 1 b Offset. I also note the EPBC number is incorrect – it should be 2014/7190.

We have double checked the data to be correct. I have attached the data again, in a broken down format.

Can you let me know if there are any issues on your end?

Also if there is a contact in compliance I should be liaising with? Apologies, I hadn't realised this.

Regards,

Keira Grundy Environmental Planner **Saunders Havill Group**
direct line (07) 3251 9468 mobile 0437 822 880 email keiragrundy@saundershavill.com
phone 1300 123 SHG web www.saundershavill.com head office 9 Thompson St Bowen Hills Q 4006

Surveying / Town Planning / Urban Design / Mapping / Environmental Management / Landscape Architecture

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From: Nielsen, Robin <Robin.Nielsen@environment.gov.au>
Sent: Monday, 13 August 2018 9:38 AM
To: Keira Grundy <keiragrundy@saundershavill.com>
Cc: Blackwell, Peter <Peter.Blackwell@environment.gov.au>
Subject: RE: 7341 E FW: Certified Voluntary Declaration 2018/004740 (EPBC 2014/7190) [SEC=UNCLASSIFIED]

Hi Keira

Our ERIN area have converted the shape file you sent and it does not really correspond with the approval map – the koala clearing area shown is much bigger. In particular the area shown as Management Lot 292 is shown on your shapefile as Koala Habitat for clearance but the approval may does not include it. Can you please explain or amend the shapefile?

By the way, in general our Department's Compliance area handles the approval once the various plans are approved and any variations put in place.

Regards

Robin Nielsen

Post Approvals Section | Environment Standards Division

Department of the Environment and Energy

robin.nielsen@environment.gov.au | 02 6274 1004

From: Keira Grundy [<mailto:keiragrundy@saundershavill.com>]
Sent: Thursday, 9 August 2018 2:18 PM
To: Nielsen, Robin <Robin.Nielsen@environment.gov.au>
Cc: Blackwell, Peter <Peter.Blackwell@environment.gov.au>; Andrew Conochie <aconochie@sunlandgroup.com.au>; Murray Saunders <murraysaunders@saundershavill.com>
Subject: FW: 7341 E FW: Certified Voluntary Declaration 2018/004740 (EPBC 2014/7190)
Importance: High

Hi Robin,

Please find attached the certified V-Dec from DNRME and shapefile for the Stage 1b offset for the Nambucca Crescent project (EPBC 204/7190).

I trust this addresses conditions 5(aa), 5(c) and 5(d) of the variation to the EPBC approval.

Can you please confirm that all EPBC approval condition requirements have been satisfied to allow additional clearing on site to commence?

Kind regards,

Keira Grundy Environmental Planner **Saunders Havill Group**

direct line (07) 3251 9468 mobile 0437 822 880 email keiragrundy@saundershavill.com

phone 1300 123 SHG web www.saundershavill.com head office 9 Thompson St Bowen Hills Q 4006



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From: HUMBLE-CROFTS Genevieve <Genevieve.Humble-crofts@dnrme.qld.gov.au>
Sent: Wednesday, 8 August 2018 3:41 PM
To: Nerida Bradley <Nerida@qtfn.org.au>
Cc: Felicity Shapland <felicity@qtfn.org.au>
Subject: Certified Voluntary Declaration 2018/004740

Hello Nerida,

Please see attached the certified documents relating to voluntary declaration 2018/004740. I have not attached the offset area management plan due to size.

Kind regards,



Genevieve Humble-Crofts
Natural Resource Management Officer
Department of Natural Resources, Mines and Energy
Natural Resource Assessment - South Region - Gympie



Author : Genevieve Humble-Crofts
Ref number : 2018/004740
Unit : Vegetation Management Unit
Phone : 5352 4230

08 August 2018

Ms Nerida Bradley
GPO Box 162
BRISBANE QLD 4001

Dear Ms Bradley

Re: Certification of a voluntary declaration on 119 CH311527 - Scenic Rim Regional Council

This is to advise you that a voluntary declaration on 119 CH311527 - Scenic Rim Regional Council has been certified and the declaration of an area of high nature conservation value has been made - consistent with your agreement - by the Department of Natural Resources, Mines and Energy (DNRME) on 08 August 2018. A copy of each of the following certified documents is attached for your records:

- Declaration notice
- Declared area plan
- Declared area PMAV

These documents have been sent to you for distribution, as you are the nominated contact on the application form.

A copy of the declared area management plan: Offset Area Management Plan, EPBC 2014/7190 dated 23 May 2018, prepared by the Qld Trust for Nature is held in departmental records and is part of this certified declaration.

If a registered owner requires additional copies of the certified documents, these can be purchased at Department of Natural Resources, Mines and Energy Customer Service Centre.

DNRME Gympie
27 O'Connell Street, Gympie
Locked Bag 383, Gympie 4570
Telephone 07 5352 4229
Facsimile 5352 4201
Website www.dnrme.qld.gov.au
ABN 59 020 847 551

Please note, that in accordance with the declaration, management of the declared area, monitoring the condition of the declared area, and reporting on the condition of the declared area will be required. Please refer to the declaration documents for the specifics regarding such requirements.

This declaration will be noted on the title of the declared area—binding management, monitoring and reporting responsibilities upon current and future owners.

If you wish to discuss this matter further, please contact Genevieve Humble-Crofts on telephone number 5352 4230 quoting the reference number 2017/004740.

Yours sincerely

A handwritten signature in blue ink that reads "Genevieve Crofts".

Genevieve Humble-Crofts
Natural Resource Management Officer
Natural Resource Assessment - South Region

Voluntary Declaration notice (2018/004740)

s19E – 19K of the *Vegetation Management Act 1999*

1. Details of request

- 1.1. **Proponent's name:** Queensland Trust for Nature
- 1.2. **Date request received:** 20 July 2018
- 1.3. **Request:** declaration request as another area that contributes to the conservation of the environment.
- 1.4. **Property description:** 119 CH311527 – Scenic Rim Regional Council
- 1.5. **Land tenure:** Freehold
- 1.6. **Decision reference:** 2018/004740

2. Declaration information

2.1. Declaration made:

The Chief Executive of the Department of Natural Resources, Mines and Energy declares the area identified on Declared Area Map DAM (2018/004740) as an area of high nature conservation value in accordance with s19F(1) of the *Vegetation Management Act 1999*.

The chief executive considers the declared area to meet the following criteria under s19G of the *Vegetation Management Act 1999*—

The declared area is an area of high nature conservation value under s19G(1)(b), as the area is one or more of the following:

- a wildlife refugium;
- a centre of endemism;
- an area containing a vegetation clump or corridor that contributes to the maintenance of biodiversity;
- an area that makes a significant contribution to the conservation of biodiversity;
- an area that contributes to the conservation value of a wetland, lake or spring stated in the notice mentioned in section 19F(1) of the declaration;
- another area that contributes to the conservation of the environment.

The documents outlined in 2.2 form part of this declaration.

2.2. Voluntary declaration documents:

The following documents are part of this voluntary declaration, and must be read in conjunction with this notice:

- ✓ Declared area map (DAM 2018/004740)
- ✓ Offset Area Management Plan EPBC 2014/7190, dated 23 May 2018, prepared by Qld Trust for Nature

2.3. **Property Map of Assessable Vegetation**

In accordance with s20B of the *Vegetation Management Act 1999*, the following Property Map of Assessable Vegetation has been prepared for the declared area.

✓ Declared area PMAV (PMAV 2018/004741).

2.4. **Date of declaration:**

08 August 2018

3. **Delegated officer's signature**

A handwritten signature in black ink, appearing to read 'Andrew Collins', with a horizontal line extending to the right.

Andrew Collins
Senior Natural Resource Management Officer

478700 478800 478900 479000 479100 479200 479300 479400 479500 479600 479700 479800


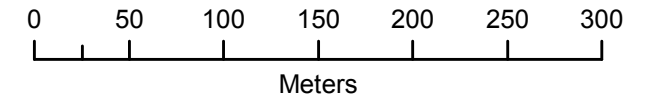
Earth-i © 21AT 2017, distribution 21AT, all rights reserved

Declared Area Map

DAM 2018/004740

LOT on PLAN
119CH311527

Sheet 1 of 1

- LEGEND**
- Reference Points
 - ▭ Subject Lot(s)
 - ▨ Declared Area (A1 & A2)

N

Scale: 1:4000
(original size A3)

Notes:

Property boundary provided by Department of Natural Resources, Mines and Energy.
The property boundaries shown on this plan are approximate only. They are not an accurate representation of the legal boundaries.

Map Information:
Horizontal Datum: GDA 1994
Projection: Universal Transverse Mercator - Zone 56

Imagery:- earth-i_2017_80cm_k31_mosaic_a.ecw
Imagery Type:- Digital Ortho-rectified Satellite

Based on or contains data provided by the State of Queensland (Department of Natural Resources, Mines and Energy) 2018. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.

© The State of Queensland (Department of Natural Resources, Mines and Energy) 2018

Map Prepared by: LMO
Department of Natural Resources, Mines and Energy
LMB 383, Gympie, Qld, 4570
© The State of Queensland (Natural Resources, Mines and Energy) 2018

Map Preparation Date: 01/08/2018

This plan must be reproduced in colour.

6925500
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6924700
6924600

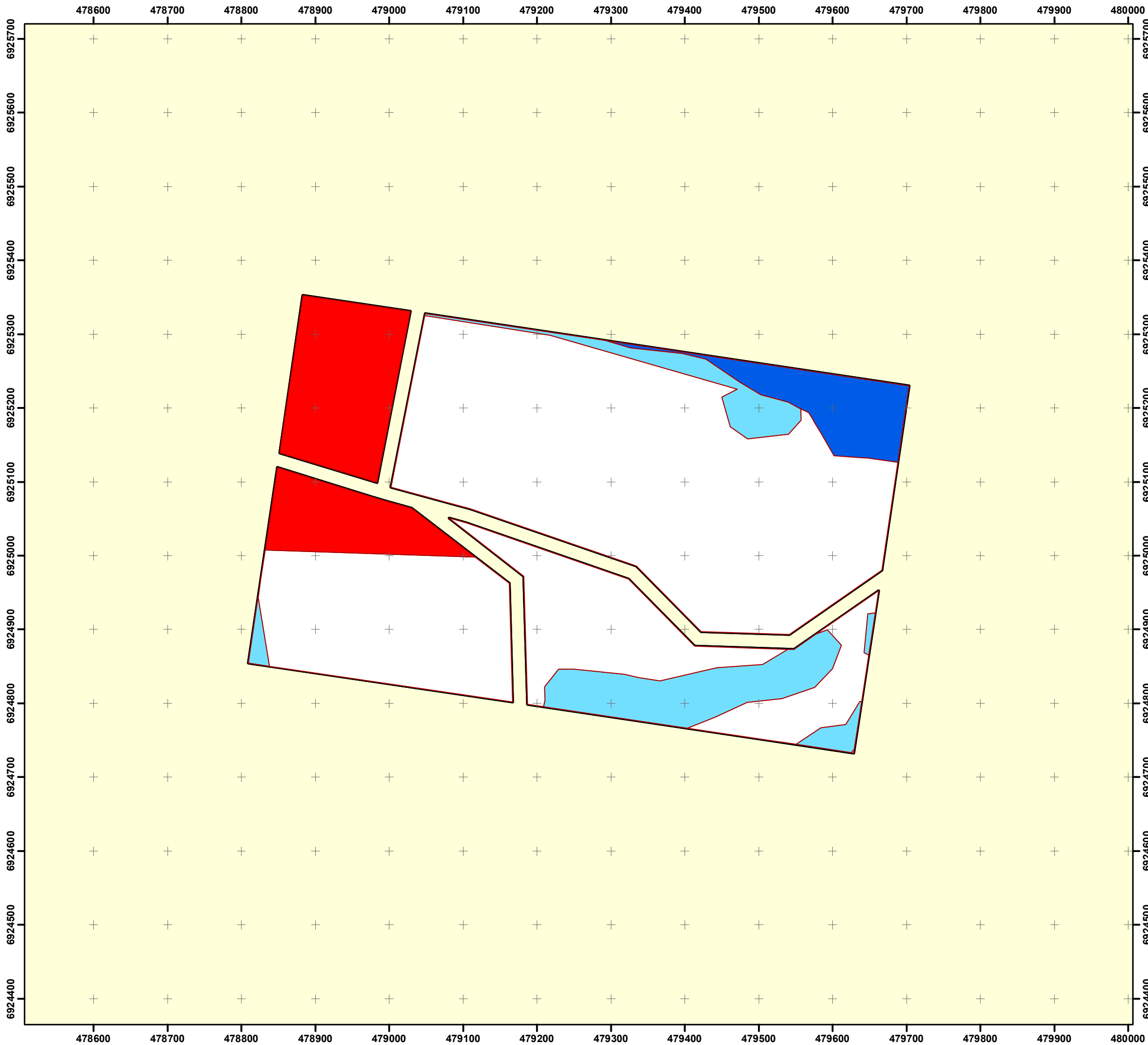


Derived Reference Points

These reference points are provided by the Department of Natural Resources, Mines and Energy and may be used to assist in locating areas delineated on this plan. All reference points continue sequentially when labels not shown. Horizontal Datum is GDA 1994. Coordinates are in Map Grid of Australia (MGA) - Zone 56

Point	Easting	Northing	Parcel
1	478832	6925008	A2
2	479116	6924998	A2

478700 478800 478900 479000 479100 479200 479300 479400 479500 479600 479700 479800

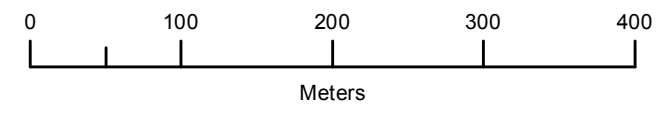


Sheet 1 of 1

Property Map of Assessable Vegetation

PMAV 2018/004741

LOT on PLAN
119CH311527



Scale: 1:5000
(original size A3)



LEGEND

- Subject Lot(s)
- Area to which the PMAV does not apply
- Vegetation Category Area**
- Category A area
- Category B area
- Category C area
- Category X area

Notes:
Property boundary provided by Department of Natural Resources, Mines and Energy.
The property boundaries shown on this plan are approximate only. They are not an accurate representation of the legal boundaries.

Map Information:
Horizontal Datum: GDA 1994
Projection: Universal Transverse Mercator - Zone 56

This PMAV is made under Section 20B(1)(b) of the Vegetation Management Act 1999.

Signed for the Chief Executive of the Department of Natural Resources, Mines and Energy by:
Name: Andrew Collins
Title: A/Principal Natural Resource Management Officer
Signature:
Date: 08 August 2018

Map Prepared by: LMO
Department of Natural Resources, Mines and Energy
LMB 383, Gympie, Qld, 4570

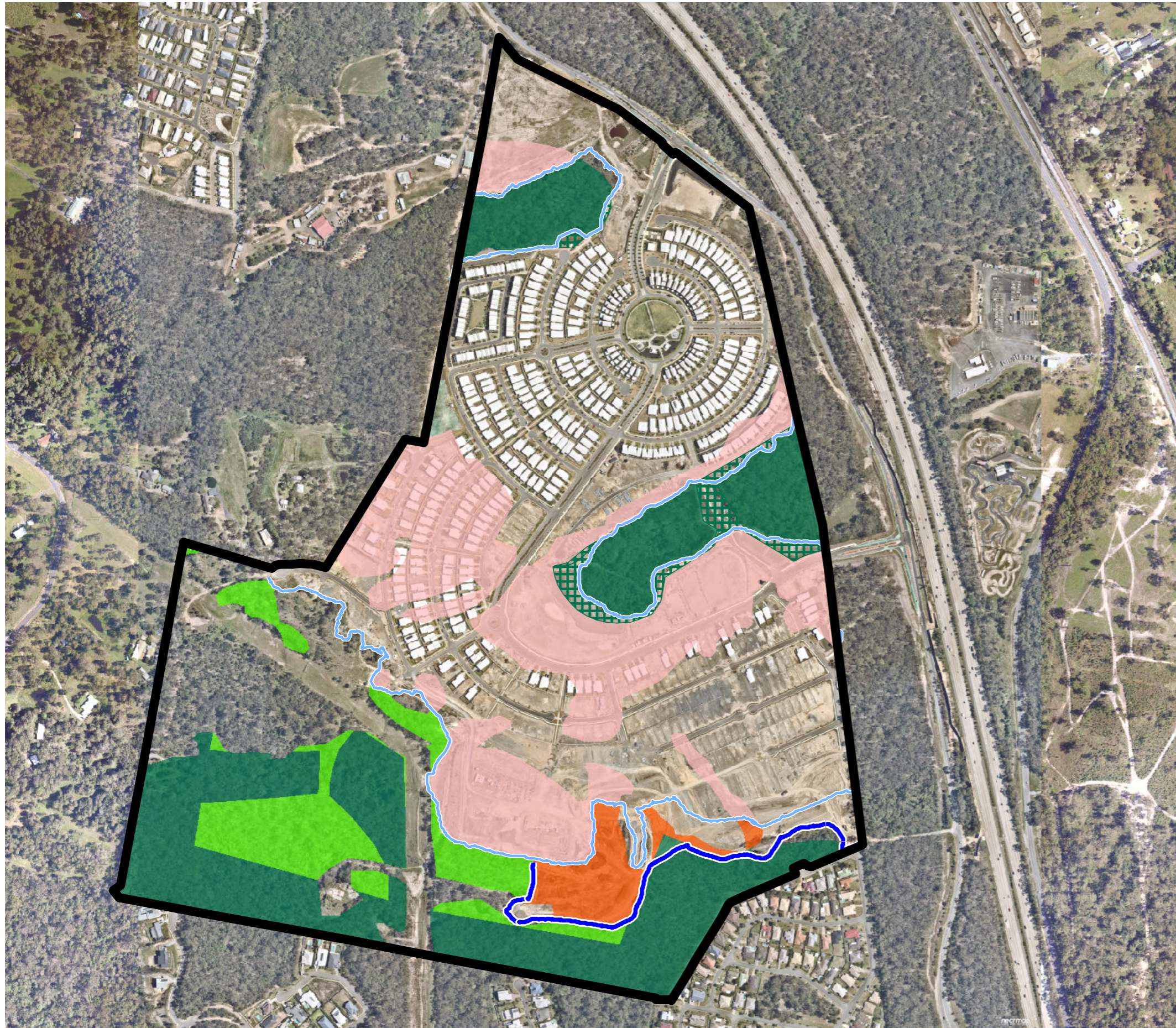
Map Preparation Date: 01/08/2018

This plan must be reproduced in colour.

Appendix D

Map of Koala Habitat Cleared in Year 2

5. Clearing Areas



NOTES
 This plan was prepared as a desktop assessment tool. The information on this plan is not suitable for any other purpose. Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.

Layer Sources
 Old State Cadastre and Mapping layers © State of Queensland (Department of Natural Resources and Mines) 2017. Updated data available at <http://qldspatial.information.qld.gov.au/catalogue/>
 Aerial imagery © Nearmap, 2017

* This note is an integral part of this plan/data. Reproduction of this plan or any part of it without this note being included in full will render the information shown on such reproduction invalid and not suitable for use.

Legend

-  Project site boundary
-  Removed Koala Critical Habitat (2017-2018): 4.52 ha
-  Removed Koala Critical Habitat (2016-2017): 21.08 ha
-  Remaining Koala Critical Habitat to be removed - 4.18 ha
-  Koala Critical Habitat retention area - 21.7 ha
-  Rehabilitation of Koala Critical Habitat - 1.6 ha
-  GPS tracklog of clearing 2017-2018
-  GPS tracklog of clearing 2016-2017

Issue	Date	Description	Drawn	Checked
A	6/02/2018	Preliminary	TC	MS
B	7/02/2019	ACR2	TC	KG

0 30 60 120 180 240 m

Transverse Mercator | GDA 1994 | Zone 56 | 16,750 @ A3



Appendix E

Compliance Assessment against
Management Measures in the KMP

Management Outcome	Management Activity/ Measure	Responsibility	Timing	Monitoring / Frequency	Reporting	Performance Threshold	Corrective actions if performance threshold reached.	Compliance Comments
Prior to Commencement								
Secure stage 1 offset prior to commencement of the action.	Stage 1 offset will be secured by means of a voluntary declaration as an area of high conservation value (under section 19F of the Vegetation Management Act 1999).	Sunland	Prior to commencement of the action	Not applicable.	Evidence of voluntary declaration as an area of high conservation value (under section 19F of the Vegetation Management Act 1999) to be provided to Department of the Environment and Energy prior to commencement of the action.	Stage 1 offset not secured.	Action is not commenced until stage 1 offset is secured.	Compliant Sunland, through an agreement with third party offset provider Queensland Trust for Nature (QTFN), legally secured the Stage 1 Offset via a Voluntary Declaration under the <i>Vegetation Management Act 1999</i> on the 10 th November 2016. Evidence was provided to the Department on the 10 th November 2016, prior to the commencement of the action on the 11 th November 2016.
Contractors comply with the EPBC Act approval conditions.	Provide Copy of KMP to all contractors and subcontractors and retain final copy within the site construction office at all times	Sunland provide principal contractor. Principal contractor to all sub-contractors	to As part of contractor to appointment and throughout construction	Provision for supplying the KMP to the principal contractor will occur with contractual appointment. The principle contractor is responsible for providing evidence that each appointed sub-contractor has been provided the KMP.	Evidence of KMP being provided to contractors and subcontractors working on the site to be included in annual compliance report.	Contractor not provided copy of KMP and / or copy not retained in site office	Action is not commenced until Contractor has copy of KMP and or copy is located in site office.	Compliant Sunland retain an electronic copy of the KMP which was provided to the contractor upon appointment. A copy of the KMP is included in the site office and this compliance against this criterion has been reported monthly by the Contractor upon completion of the KMP Compliance Checklist (refer Item A4 in Attachment 1). Requirements of the KMP have been included as part of site induction checklists, SWMS and toolbox talks to ensure all sub-contractors are aware of KMP requirements. Evidence of these documents was provided as part of the Year 1 ACR as per the KMP criterion below. Compliance against this criterion has been reported monthly by the Contractor upon completion of the KMP Compliance Checklist (refer Item A5 and B1 in Attachment 1).
Contractors comply with the EPBC Act approval conditions.	Key KMP criteria to be included on the Workplace Health and Safety and Environmental Management work method statement	Prepared by the principal contractor as part of other site induction checklists	Checklist to be completed prior to commencement and issued as part of all site inductions.	The site induction process requires all visitors and workers at the site to read and acknowledge work method statements as part of a signed checklist. This is provided to and signed by each new entrant to the site as part of induction procedures. Review of compliance and report will be completed monthly.	Contractor will review project compliance with the KMP on a monthly basis and provide a monthly report to the proponent. A copy of the site induction checklist inclusive of KMP criteria and copies of monthly reports will be provided with the first annual compliance report for the project.	Report not provided	Action ceased or next stage of the action not commenced upon recognition of the failing of the performance threshold until report provided and rectification procedures for reporting are in place.	Compliant A copy of the KMP is included in the site office. Requirements of the KMP have been included as part of site induction checklists, SWMS and toolbox talks to ensure all sub-contractors are aware of KMP requirements. Evidence of these documents was provided as part of the Year 1 ACR in compliance with this criterion. As required by the KMP, the Contractor reviewed project compliance on a monthly basis and completed the KMP Compliance Checklist (refer Attachment 1). This checklist was implemented from January 2018 in response to a technical non-compliance for

Management Outcome	Management Activity/ Measure	Responsibility	Timing	Monitoring / Frequency	Reporting	Performance Threshold	Corrective actions if performance threshold reached.	Compliance Comments
To minimise impacts of fauna during clearing	Engagement of Fauna Spotter/Catcher - ensure Fauna Spotter Catcher retains all necessary licences and accreditations.	Proponent (or as passed onto Principal contractor).	Before clearing commences on any stage of works and during construction including any post construction reporting.	Pre-clearance report issued to Council and prior to commencement of works. Fauna spotter/catcher on site during all works. Pre-clearance reports to be posted on project website.	Copies of the pre-clearance reports for each stage of works will be included in the EPBC annual compliance report. Evidence the pre-clearance reports have been posted for public access on the project website will be provided in the annual report. EPBC annual compliance report includes evidence that Fauna Spotter/ Catcher retains all necessary licences and accreditations in accordance with the requirements of the Queensland Department of Environment and Heritage Protection.	Fauna spotter not engaged or not engaged adequately to achieve KMP requirements. Fauna spotter/ catcher does not have the necessary licences and accreditations in accordance with the requirements of the Queensland Department of Environment and Heritage Protection.	The action, specifically the clearing, does not commence until fauna spotter/ catcher with the necessary licences and accreditations in accordance with the requirements of the Queensland Department of Environment and Heritage Protection is engaged.	<p>this reporting criterion which was identified in the Year 1 ACR. All aspects of pre-clearing, clearing and post clearing requirements specified within the KMP were undertaken by the Construction Contractor, Clearing Contractor and Fauna Spotter Catcher throughout the entire Year 2 reporting period. As most of the development site is in the construction phase (post clearing and pre-operation), daily operations pose minimal risk to Koalas. Clearing only occurred in the month of August for this reporting period.</p> <p>Compliant Sunland appointed a DES accredited fauna spotter catcher, Tomewin Wildlife Consultancy (TWC) to undertake all fauna spotter requirements as per Commonwealth, State and Local Government approvals. This included pre-clearance surveys and post clearing reporting as per the 'Queensland Code of Practice for the Welfare of Animals affected by land clearing as conditioned by the EPBC Act approval' as well as being in attendance at the pre-start meeting and during clearing activities. Compliance against this criterion is reported has been reported monthly by the Contractor upon completion of the KMP Compliance Checklist (refer Item B4, B5 and Section C in Attachment 1).</p> <p>Details of relevant licences and accreditations are contained in Section 1 of the WPMP and WHIMP prepared for the Precinct C1 & C2 clearing which took place in August 2018.</p> <p>Copies of the WPMP, WHIMP and Post-clearing Reports for each stage of works have been published on The Heights website https://the-heights.com.au/koala-management.html and as per this criterion are included in Attachment 2.</p>
To minimise impacts of fauna during clearing	Appointed Fauna Spotter Catcher to develop Wildlife Protection and Management Plan (Prepared in accordance with the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing, including details on: <ul style="list-style-type: none"> Description of the project with reference to impacts on wildlife and wildlife habitat 	Fauna Spotter / Catcher	Before construction commences	Prior to commencement of clearing in any stage.	Copies of the Wildlife Protection and Management Plan for each stage of works will be included in the EPBC annual compliance report. Evidence the Wildlife Protection and Management Plan have been posted for public access on the project website will be provided in the annual report.	Wildlife Protection and Management Plan not prepared.	The action, specifically the clearing, does not commence until fauna spotter engaged.	<p>Compliant TWC have prepared Wildlife Protection and Management Plan (WPMP) for the Precinct C1 & C2 clearing undertaken during the reporting period. This WPMP includes a description of the project with respect to impact on wildlife and wildlife habitat (refer Section 2), habitat areas and features (Section 3), results of pre-clearance fauna surveys</p>

Management Outcome	Management Activity/ Measure	Responsibility	Timing	Monitoring / Frequency	Reporting	Performance Threshold	Corrective actions if performance threshold reached.	Compliance Comments
	<ul style="list-style-type: none"> Pre-development plan of the site and habitat impact assessment based on the proposed development works showing habitat areas, features, corridors, riparian habitats and adjacent areas; Results of any fauna surveys including pre-clearance surveys; and A wildlife and habitat impact assessment based on the proposed development works. 							<p>(Section 3) and a wildlife and habitat impact assessment (Section 4).</p> <p>The WPMP was prepared within 2 weeks of the clearing.</p> <p>A copy of the WPMP (Precinct C1 & C2) has been published on The Heights website https://the-heights.com.au/koala-management.html and as per this criterion is included in Attachment 2.</p>
To minimise impacts of fauna during clearing	<p>Appointed Fauna Spotter/Catcher to develop Wildlife and Habitat Impact Mitigation Plan (Prepared in accordance with the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing), including details on:</p> <ul style="list-style-type: none"> Measures required to be completed to minimise wildlife and habitat impacts during operational works including developing a clearing pattern which commences in existing disturbed areas and flushes and flushes animals towards retained vegetation and away from conflict areas including: <ul style="list-style-type: none"> Rifle Range Road The Pacific Motorway Existing adjoining residential areas Constructed portions of the project; Wildlife capture and removal plan; Contingency plan for wildlife requiring euthanasia, other veterinary procedures or captive care; Wildlife storage and housing plan; Wildlife release and disposal plan; Post works measures to minimise impacts on wildlife. 	Fauna Spotter / Catcher	Before construction commences	Prior to commencement of clearing in any stage.	Copies of the Wildlife and Habitat Impact Mitigation Plan for each stage of works will be included in the EPBC annual compliance report.	Wildlife and Habitat Impact Mitigation Plan not prepared.	The action, specifically the clearing, does not commence until fauna spotter engaged.	<p>Compliant</p> <p>TWC have prepared a WHIMP for the Precinct C1 & C2 clearing which includes a wildlife capture and removal and disposal plan (Section 3), contingency measures (Section 4), wildlife housing a storage plan (Section 5), wildlife release and disposal plan (Section 6) and post works measures (Section 7).</p> <p>The WHIMP was prepared within 2 weeks of clearing.</p> <p>A copy of the WHIMP (Precinct C1 & C2) has been published on the Project website https://the-heights.com.au/koala-management.html and as per this criterion is included in Attachment 2.</p>
To minimise impacts of fauna during clearing.	Attendance appointed Fauna Spotter/Catcher at Pre-Start Meeting.	Fauna Spotter / Catcher / Principal contractor	At the pre-start meeting for each new stage of clearing and construction works.	Fauna Spotter to sign pre-start attendance checklist.	Evidence of fauna spotter at project pre-start to be submitted with annual compliance report (copy of signed attendance sheet).	Fauna spotter does not attend the pre-start meeting.	The action, specifically the clearing, does not commence until fauna spotter engaged.	<p>Compliant</p> <p>A representative from TWC was in attendance at the pre-start meeting for the Precinct C1 & C2 clearing. Pre-start attendance by a DES appointed Fauna Spotter Catcher was also a formal requirement by City of Gold Coast Council. A copy of the signed pre-start attendance sheet (toolbox talk) is included in Attachment 3).</p>

Management Outcome	Management Activity/ Measure	Responsibility	Timing	Monitoring / Frequency	Reporting	Performance Threshold	Corrective actions if performance threshold reached.	Compliance Comments
No injuries or mortality to Koalas during clearing and construction.	Install temporary fauna exclusion fence or other suitable barrier around construction areas as identified at Plan 5 to prevent koala access into construction zone.	Contractors	After the clearing is completed and prior to construction occurring within the development area.	Fence is to be monitored monthly and reported on within the monthly KMP compliance report to be prepared by the principal contractor.	Photographic evidence of the fence / barrier installation during construction to be provided as part of annual compliance report.	Koala recorded within the active construction zone.	Works cease and fence / barrier are reviewed and rectified to avoid koala re-entry into the active construction zone.	<p>Compliant</p> <p>No Koalas were recorded within the active construction zone during the reporting period. Attachment 1 includes a copy of monthly KMP Compliance Checklists completed by the Contractor for this reporting period. Item A1 specifically addresses this compliance requirement.</p> <p>As part of this audit, in February 2019 SHG inspected temporary fauna exclusion fencing installed at the development site.</p> <p>Temporary fencing has been installed as per EPBC approval requirements for each stage adjoining active construction areas refer Attachment 4 for photo plan).</p> <p>Permanent fencing has been installed as per EPBC requirements where adjoining stages in operational phases (refer Attachment 5 for photo plan).This exclusion fencing has been designed in accordance with requirements of City of Gold Coast and has been accepted by Council both for The Heights development and in residential estates throughout the Gold Coast area.</p> <p>Fencing has been monitored on a monthly basis as part of KMP Compliance Checklists. (refer items B2 and D1 in Attachment 1).</p>
During Operation / Post Clearing								
To minimise adverse impacts to Koalas as a result of residential activity.	Install permanent koala exclusion fencing between development uses and the conservation corridor and retained vegetation areas (In locations highlighted on Plan 5). Koala exclusion fencing and design to be in accordance with the Koala Sensitive Design Guideline (2015) Queensland Department of Environment and Heritage Protection.	Sunland	The koala exclusion fencing to be installed following completion of the clearing, earthworks and civil works within the residential blocks that are adjacent to the location of the koala exclusion fencing and prior to commencement of housing construction.	Fences will be inspected monthly and documented as compliance post construction. Residential construction areas will also be monitored for presence of koalas to ensure koala exclusion fencing is functioning as required.	Photographic and other documented evidence of the exclusion fencing installation is to be provided within the annual reporting period in which a stage containing the fencing occurs.	Fencing not installed. Koalas encountered within residential construction area.	House construction within relevant stage does not commence until fencing has been constructed. Koala exclusion fencing is adjusted such that koalas are prevented from entering the residential construction areas.	<p>Compliant</p> <p>Permanent fencing has been installed as per the EPBC approval where adjoining development stages that are in operational phase. Note, this requirement is not yet applicable for the majority of the site is as houses have not yet been constructed. Only a small portion of the site (i.e. Precinct A and parts of Precinct B). Refer to Attachment 5 for photo plan.</p> <p>No Koalas were encountered within the residential construction area as reported in monthly KMP Compliance Checklists completed by the Contractor (refer to Items A1 and A2 in Attachment 1).</p>
To minimise adverse impacts to Koalas as a	All road crossing / retained vegetation intersection points will include fauna signage and movement solutions as documented in the	Principal contractor under	Required fauna and wildlife signage and movement solutions will be the signage devices must	Signage and wildlife movement solutions will be installation is to be	Photographic and other documented evidence of the Signage and wildlife movement solutions installation is to be	All or any of the infrastructure	Permanent operational use of the road does not commence until	Compliant.

Management Outcome	Management Activity/ Measure	Responsibility	Timing	Monitoring / Frequency	Reporting	Performance Threshold	Corrective actions if performance threshold reached.	Compliance Comments
result of residential activity	Wildlife Signage Guideline (Draft) TRUM direction of be installed as part of the road construction and prior to the actual operation (or use) of the road access. Technical Working Note as part of construction. Locations for these treatments are depicted on Plan 5. Specific fauna friendly infrastructure identified on Plan 5 includes: <ul style="list-style-type: none"> Changed road pavement thresholds; Road and post awareness signage; Reduced speed limits; and Road verge planting treatments. 	Sunland		documented upon provided within the annual reporting period in which it is constructed. Monitoring of the continuation of these devices will occur annually for the life of the approval.	Evidence the Signage and wildlife movement solutions have been maintained will be provided in each subsequent annual compliance report.	proposed on Plan 5 and as described as: <ul style="list-style-type: none"> Changed road pavement thresholds Road and post awareness signage Reduced speed limits Road verge planting treatments 	approved infrastructure is installed.	As per Plan 5 in the KMP, a wildlife movement solution in accordance with the Wildlife Signage Guidelines and Fauna Sensitive Road Design Guidelines has been installed at the western entry road. This includes changes pavement thresholds, awareness signage, reduced speed limits and planting treatments (refer to Attachment 6 for photo plan). Documentation upon construction (august 2018) and monthly monitoring has been completed by the Contactor as per Item D2 in the KMP Compliance Checklist.
To minimise adverse impacts to Koalas as a result of residential activity	Construct dog off-leash facilities within recreational open space areas.	Landscape Contractors appointed by Sunland	As part of the construction works for the relevant open space area.	N/A	Photographic and other documented evidence of the dog off-leash park facility installation is to be provided within the annual reporting period in which it is constructed.	Off-leash dog facility not installed.	Construct facility retrospectively in recreational open space areas.	Not applicable No off-leash dog facilities have been installed Provision for an off-leash dog facility is proposed at within Precinct B2. Detailed design for this Precinct was not finalised at the time of writing this ACR.
To minimise adverse impacts to Koalas as a result of residential activity	Prepare and distribute a copy of the Lifestyle Guidelines containing environmental education material to each new resident and adjoining housing in the south east corner.	Consultant on behalf of Sunland	As part of the purchase material for new residence. Provide copy to existing adjoining houses in the south east corner in conjunction with the stage resulting in the dedicating of the adjoining conservation land.	As each new stage is completed and residence commence moving in.	Copy of Lifestyle Guidelines provided within relevant annual compliance report. Evidence of distribution of the lifestyle guidelines to new and existing residents within each relevant annual compliance report.	Guidelines prepared distributed.	not Prepare guidelines and or issue to residents retrospectively prior to operational use of the next stage of development.	Compliant A Koala Friendly Living Guideline has been prepared by the Proponent in conjunction with Saunders Havill Group. This Guideline is made available to all new residents as part of land / house purchase packages.

Attachments

Attachment 1

KMP Compliance Checklists

Attachment 2

Copies of WHIMP, WPMP and Post-Clearing Reporting for Year 2

Attachment 3

Signed Pre-Start Attendance Sheet (Toolbox Talk)

Attachment 4

Photos of Temporary Koala Exclusion Fencing

Attachment 5

Photos of Permanent Koala Exclusion Fencing

Attachment 6

Photos of Wildlife Movement Solution

Attachment 1

KMP Compliance Checklists

Project Area: THE HEIGHTS		January 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage gBto22, Southern External Intersection.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at January 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at January 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		February 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage gBto22, Southern External Intersection.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at February 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at February 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		March 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage gBto22, Southern External Intersection.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and /or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at March 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at March 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		April 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage 9Bto22, Southern External Intersection. Stage 23 Civil Works.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and /or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at April 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at April 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		May 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage 9Bto22, Southern External Intersection. Stage 23 Civil Works.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at May 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at May 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		June 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage 9Bto22, Southern External Intersection. Stage 23 Civil works.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and /or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at June 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at June 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		July 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 2016		B2 Earthworks, Civil Works Stage 9Bto22, Southern External Intersection. Stage 23 Civil works.			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and /or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?	Yes			
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at July 2018
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access				

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at July 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?				
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational phase (i.e. Stage 7A and along the western

					boundary adjoining Heritage Park).
D2	Have wildlife movement solutions been installed as shown in Plan 5?			N/A	Road crossing / retained vegetation intersections points as shown on Plan 5 are yet to be constructed.

Project Area: THE HEIGHTS		August 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 24 th August 2018		C1 + C2 Earthworks, Civil Works Stage 23,24 and 25			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?			N/A	No koala sightings
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?	Yes			Toolbox carried out prior to clearing on 24 th August 2018 and again 27 th August 2018. Clearing prestart held 23 rd August 2018.
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access	Yes			

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?	Yes			
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?	Yes			
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?	Yes			
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?	Yes			
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?	Yes			
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?	Yes			
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?			N/A	No koalas were identified during clearing
C5	Has the appointed Fauna Spotter completed a post-clearing report?	Yes			
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operational.

D2	Have wildlife movement solutions been installed as shown in Plan 5?	Yes			
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Project Area: THE HEIGHTS		September 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 24 th August 2018		C1 + C2 Earthworks, Civil Works Stage 23,24 and 25			
Date works is to cease: TBC		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?			N/A	No koala sightings
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?	Yes			Toolbox carried out prior to clearing on 24 th August 2018 and again 27 th August 2018. Clearing prestart held 23 rd August 2018.
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access	Yes			

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?	Yes			
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?	Yes			
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?	Yes			
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?	Yes			
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?	Yes			
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?	Yes			
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?			N/A	No koalas were identified during clearing
C5	Has the appointed Fauna Spotter completed a post-clearing report?	Yes			
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operation.

D2	Have wildlife movement solutions been installed as shown in Plan 5?	Yes			
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Project Area: THE HEIGHTS		October 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 24 th August 2018		C1 + C2 Earthworks, Civil Works Stage 23,24 and 25			
Date works is to cease: All Clearing completed in early September 2018		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?			N/A	No koala sightings
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?	Yes			Toolbox carried out prior to clearing on 24 th August 2018 and again 27 th August 2018. Clearing prestart held 23 rd August 2018.
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in	Yes			

	Plan 5 (attached) to prevent koala access into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?	Yes			
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?	Yes			
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?	Yes			
<p>SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.</p>					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?	Yes			
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?	Yes			
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?	Yes			
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?			N/A	No koalas were identified during clearing
C5	Has the appointed Fauna Spotter completed a post-clearing report?	Yes			
<p>SECTION D Post Clearing / Construction / Operation</p>					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operation.

D2	Have wildlife movement solutions been installed as shown in Plan 5?	Yes			
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Project Area: THE HEIGHTS		November 2018			
Contractor: GOLDING CONTRACTORS		Construction Stage/ Activity:			
Date works commenced: 24 th August 2018		C1 + C2 Earthworks, Civil Works Stage 23,24 and 25			
Date works is to cease: All Clearing completed in early September 2018		Compliance			
#	Control Measure	Yes	No	N/A	Comments
SECTION A					
General Measures (At all times)					
A1	Has any death or injury of Koalas occurred as a result of clearing and / or construction activities?		No		
A2	Has any death or injury of Koalas occurred within the project area by other means? (i.e. natural causes, animal attack etc.).		No		
A3	If the answer to 1 and/ or 2 is Yes, was the contractor and proponent immediately notified?				Not applicable
A4	Has a copy of the KMP been provided to all contractors and subcontractors and has a physical copy of the KMP been made available in the site office?	Yes			
A5	Has key KMP criteria been included in contractor and subcontractor SWMS and induction checklists?	Yes			
A6	Has an EHP accredited Fauna Spotter been engaged?	Yes			
A7	Have all sightings for koalas located within, or immediately adjoining the construction zone, been reporting to the contractor?			N/A	No koala sightings
SECTION B					
If a clearing stage was commenced and/or active during this monthly reporting period, the following needs to be completed.					
B1	Has a toolbox talk on the KMP been conducted with all key contractor and subcontractor personnel prior to pre-start of each clearing stage?				No Clearing underway as at November 2018.
B2	Has temporary fauna exclusion fencing or other suitable barriers been installed around construction areas as identified in Plan 5 (attached) to prevent koala access	Yes			

	into the construction zone prior to clearing?				
B3	Has the appointed Fauna Spotter completed pre-clearance surveys and reports (i.e. WPMP and WHIMP) no more than 2 weeks prior to clearing?				
B4	If the appointed Fauna Spotter identified any sensitive areas for consideration in clearing method, have these been identified in sequential clearing plans and have these methods been adopted by the clearing contractor?				
B5	Was the appointed Fauna Spotter in attendance at all pre-start meetings?				
SECTION C If a clearing stage was active and/or completed during this reporting period, the following section needs to be completed.					
C1	Was the appointed Fauna Spotter present during all clearing activities during the monthly reporting period?				No Clearing underway as at November 2018
C2	Did all clearing of koala habitat occur in a staged and sequential pattern enabling the directional flushing of native animals to retained vegetation areas?				
C3	Did daily inspections by the appointed Fauna Spotter of all clearing and construction works area for injured or dead koalas occur?				
C4	If koalas were identified during clearing, did stop works procedures occur and were exclusion barriers erected, as directed by the appointed Fauna Spotter?				
C5	Has the appointed Fauna Spotter completed a post-clearing report?	Yes			
SECTION D Post Clearing / Construction / Operation					
D1	Has permanent Koala exclusion fencing between the development and conservation areas (as shown in Plan 5 attached) been installed?	Yes			Permanent Koala Exclusion Fencing has been installed as per Plan 5 where development stages are in operation.

D2	Have wildlife movement solutions been installed as shown in Plan 5?	Yes			
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Attachment 2

Copies of WHIMP, WPMP and Post-Clearing Reporting for Year 2

Post Clearing Report (Fauna Management Services Report)

The Heights -Precinct C1 & C2
Rifle Range Road, Pimpama

Tomewin Wildlife Consultancy
8-1-2018

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1. Introduction

1.1. Project Background

Tomewin Wildlife Consultancy (TWC) was commissioned by Golding Contractors on behalf of Sunland Property Group ('the Proponent') to produce a post clearing fauna management report in accordance with the 'Queensland Code of Practice for the Welfare of Wild Animals Affected by Land-Clearing and Other Habitat Impacts and Wildlife Spotter / Catchers (Draft), prepared by Hanger, J. and Nottidge, B. 2009' ('the Code') for proposed clearing works associated with The Heights residential development at Pimpama. This report also encompasses the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and Queensland *Nature Conservation Act 1992* (NCA) and 'The Heights Koala Management Plan – EPBC Approved EPBC Act Management Plan, prepared by Saunders Havill Group. 2016' (KMP).

This report covers clearing activities associated with Precinct C1 & C2 Fauna Spotter pre-clearing and trapping surveys were carried out between 23rd and 24th August 2018. Monitoring of clearing processes and fauna recovery was carried out between the 23rd to 28th August 2018. Commonwealth, State and Locally listed species and well as common fauna species threatened and common fauna species and their habitats have been considered.

1.2. Site Context

Contextually, the site is located approximately 35 km north of the Gold Coast and 50 km south of Brisbane. The site is an area of approximately 18ha located on moderate slopes with dry eucalyptus forest peripheral to a large previously cleared development site adjacent to Rifle Range Road, Pimpama. The site specific area including areas of prior rural residential land use to be cleared extends from the northern boundary adjacent to an environmental retained area to the south.

The Precinct C1 & C2 clearing extent is the third clearing phase for the Heights Estate, Rifle range Road, Pimpama located to the south – west of the existing estate on both sides of Nambucca Crescent and Kiama Crescent. The specific project is tree clearance for real estate development (refer Figure 1).

The site is an area of dry eucalypt forest to wattle re-growth approximately 4ha located on a moderate slope ridge to steep slope including areas of prior rural residential land use to be cleared south of existing precincts.

2. Spotter –Catcher Actions

The following actions were performed in accordance with the Wildlife Habitat Impact Mitigation Plan prepared by TWC, August 2018.

2.1. Pre-Clearing Fauna Survey

The below techniques were applied to confirm the current fauna values

- Pre-clearing inspection of site to clearly identify all static fauna valued ground features and trees with high visibility tape.
- Daily surveys to confirm fauna value and actual fauna present on the site specific immediately prior to clearing using techniques defined below.
 - Observation of canopy and under-story vegetation for active bird nests, possum drays and termite mounds
 - Observation of site to locate and identify actual wildlife present prior to clearing.
 - Examination of favoured feed trees bark to 6 m height for presence Koala, possum, glider trace to assess usage/incidence
 - Binocular search of canopy vegetation to locate visibly hollow bearing trees hollows or potentially hollow bearing trees.
 - Examination of visible hollows to evaluate presence of active breeding birds or glider activity/trace.
 - Spotlighting to confirm absence or presence of nocturnal fauna.

2.1.1 Specific Methodology for Koalas

Due to the specific requirements relating to the Koala the following techniques were employed at the clearance site to ascertain presence/absence status:

- Use of binoculars to inspect the crown, forks and trunk of trees;
- ‘Drip zone’ searches at the base of known food trees for the presence of scats to a radius equal to that of the crown of individual trees;
- Inspection of trunks for scratchings indicative of use by Koalas.

Koala management strategies highlighted in the *Nature Conservation (Koala) Conservation Plan 2017* have resulted in particular conditions placed on vegetation clearance involving the removal of Koala food trees.

Further, provisions include the restriction of all clearance that may directly interfere with the tree a Koala is residing in. Koalas are to leave via their own volition and may not be interfered with by any means. Only when Koalas have vacated a tree can clearance operations include the host tree and surrounding vegetation.

2.2. Liaison

- Attended meetings with clearing supervisor, to confirm progress, daily/weekly issues occurring
- Daily liaison with clearing crew supervisors to confirm site specific issues and co-ordinate clearing / spotter inter-actions.

2.3. Spotter Catcher Activities Undertaken

- One Koala spotter and one spotter-catcher per tree-felling machine conducted daily pre-clearing searches for Koalas and was present for the duration of all tree-felling
- One spotter-catcher conducted daily check of timber stacks prior to shearing and monitored shearing of timber stacks proximal to retained habitat
- Pre-clearing trapping program for small terrestrial fauna and trapping program around felled vegetation stockpiles.
- Daily pre-clearing inspection of site to confirm absence or presence of Koalas within vicinity of clearing zone.
- Checking of ground features (drainage lines, fallen logs, rock formations, tree stumps, burnt out tree stump cavities) for track and trace, reptiles, burrow entrances
- Confirmation of located fauna presence with clearing crew and direction of clearing process to allow fauna dispersal opportunity
- 24 hour exclusion zones applied to located dispersed fauna during clearing processes.
- Cessation of clearing process within designated exclusion zone areas of located Koalas
- Minor static fauna values - visibly hollow bearing trees were addressed after de-accelerated felling. Techniques included access of hollows with chainsaw and buffer rags, examination by torch to confirm absence or presence of wildlife and exclusion of felled tree from immediate processing
- Capture of located fauna
- Identification and health assessment of captured wildlife.

2.4. Addressing Located Static Fauna values

Minor and major static fauna values - visibly hollow bearing trees were addressed after de-accelerated felling. Techniques included access of hollows with chainsaw and buffer rags, examination by torch to confirm absence or presence of wildlife and exclusion of felled tree from immediate processing.

3. Fauna Interactions

Fauna observed, encountered and identified during spotter-catcher actions throughout clearing processes are detailed as Dispersed, Capture/release, Capture/relocated or fauna mortality. Raw data is provided in Appendix A.

3.1. Dispersed Fauna

Fauna noted dispersing from clearing processes or during spotter-catcher actions is listed below.

Table 1: Dispersed Fauna

No. Animals	Common Name	Scientific name	Comments
1	Red-neck Wallabies	<i>Macropus rufogriseus</i>	present within site noted during morning pre-clearing inspection.
2	Brushtail Possums	<i>Trichosurus vulpecula</i>	Dispersed from tree clearing into adjacent suitable habitat during clearing of HBTs
2	Sugar Gliders	<i>Petaurus breviceps</i>	Dispersed from HBT during clearing in adjacent habitat.
2	Tawny Frogmouth	<i>Podargus strigoides</i>	Dispersed from tree clearing into adjacent suitable habitat
1	Goannas	<i>Varanus varius</i>	Dispersed in adjacent suitable habitat.
-	Unidentified insect bats		Dispersed from tree clearing or during clearing of HBTs into adjacent suitable habitat.

3.2. Capture / Released

Fauna located during spotter-catcher actions were captured, examined briefly for age, health and held in suitable ambient conditions, consistent with FMP intentions.

Table 2: Captured and Released Fauna

No. Animals	Common Name	Scientific name	Release site
1	Brushtail Possums	<i>Trichosurus vulpecula</i>	Released into proximal suitable habitat
2	Gould's Wattled Bats	<i>Chalinolobus gouldi</i>	Released into proximal suitable habitat
1	Goannas	<i>Varanus varius</i>	Released into proximal suitable habitat
5	Robust Velvet Geckos	<i>Oedura robusta</i>	Released into proximal suitable habitat
3	Bearded Dragons	<i>Pogona barbata</i>	Released into proximal suitable habitat

The common fauna species listed above were in the main part associated with removal of hollow bearing trees. Where possible, following health checks, the captured fauna was retained within the located hollow to minimize stress during release into the adjacent retained habitat.

3.3. 4.3 Fauna Capture / Re-located / Mortality

Table 3: Fauna Captures, Relocations and Mortalities

No. Animals	Common Name	Scientific name	Comments
2	Squirrel Glider	<i>Petaurus norfolcensis</i>	Sub-adult & juvenile glider located during fauna recovery taken to Currumbin Wildlife hospital for health check and fostering.

4. Site Summary

This document is the final post-clearing fauna summary report that collates spotter-catcher actions within the Precincts C1 & C2 of the Heights Estate, Rifle Range Road, Pimpama.

All activities during the clearing process were in accordance with the conditions of 'Wildlife Habitat and Impact Mitigation Plan, prepared by TWC, August 2018' (WHIMP) and the 'The Heights Koala Management Plan – EPBC Approved EPBC Act Management Plan, prepared by Saunders Havill Group. 2016' (KMP).

No Koalas were observed during clearance. All supervised clearing activities occurred with good liaison with the clearing crews ensuring a minimal impact to fauna within the site.

Wildlife Habitat and Impact Mitigation Plan(WHIMP)

The Heights - Precinct C1 & C2
Rifle Range Road, Pimpama

Tomewin Wildlife Consultancy
August 2018

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1. Introduction

1.1. Project Background

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1.2. Site Location and Description

Contextually, the site is located approximately 35 km north of the Gold Coast and 50 km south of Brisbane. The site is an area of approximately 18ha located on moderate slopes with dry eucalyptus forest peripheral to a large previously cleared development site adjacent to Rifle Range Road, Pimpama. The site specific area including areas of prior rural residential land use to be cleared extends from the northern boundary adjacent to an environmental retained area to the south.

The Precinct C1 & C2 clearing extent is the third clearing phase for the Heights Estate, Rifle range Road, Pimpama located to the south – west of the existing estate on both sides of Nambucca Crescent and Kiama Crescent. The specific project is tree clearance for real estate development (refer Figure 1).

The site is an area of dry eucalypt forest to wattle re-growth approximately 4ha located on a moderate slope ridge to steep slope including areas of prior rural residential land use to be cleared south of existing precincts.

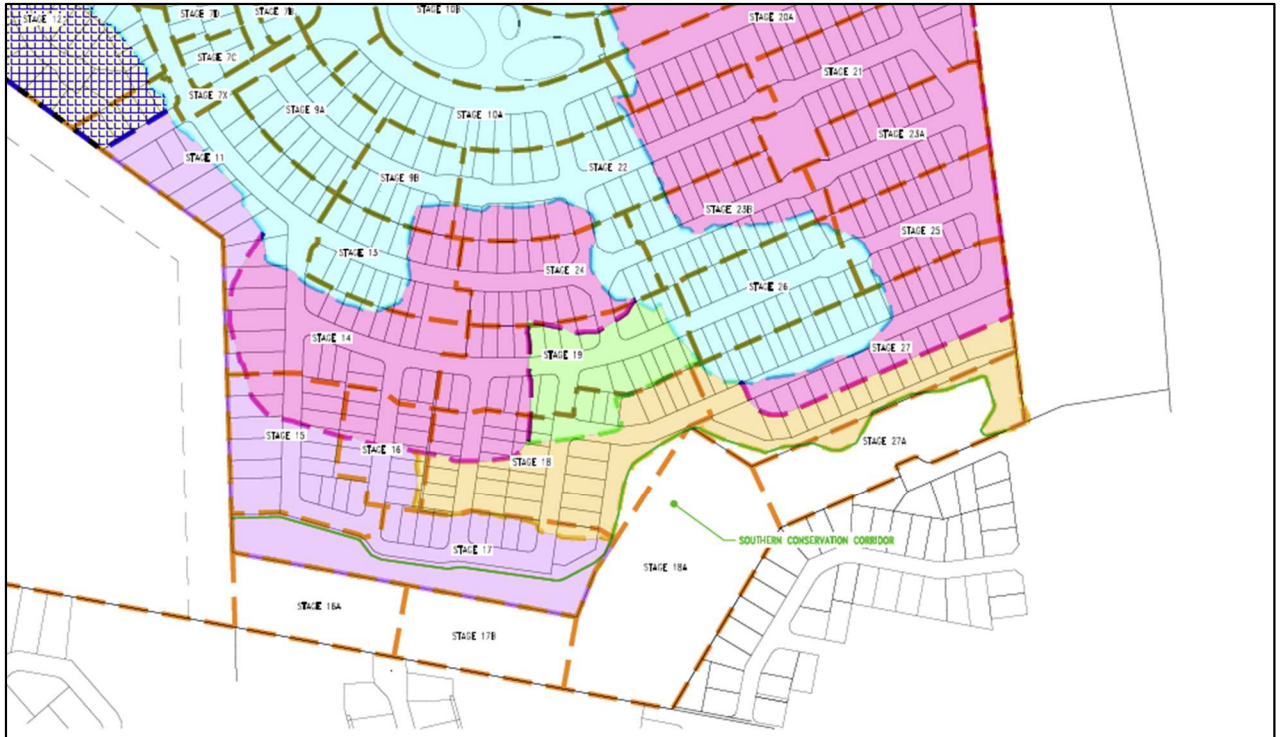


Figure 1: C1 & C2 Clearing Extent (source Bradlees)

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Working safely at heights ticket	Frank Court, Brendan Lackey,
Electrical Awareness	Frank Court, Brendan Lackey,
Operate a 4wd vehicle in the field	Frank Court, Brendan Lackey
Canoe & water safety > 2 Meters	Frank Court, Brendan Lackey
Lyssa Virus vaccination	Frank Court,
Safe venomous course snake Handling	Frank Court,

2. Mitigation and Management Measures

2.1. Fauna Spotter

A Department of Environment and Science (DES) accredited Fauna Spotter Catcher must be present during all vegetation clearing activities. Inspection of fauna habitats and features identified during the pre-clearance survey must be inspected by the Fauna Spotter Catcher prior to clearing.

2.2. Fauna Fencing

Temporary fencing has already been installed around the perimeter of the project and will aid in minimizing the movement of large fauna including highly mobile macropods onto roads and into adjacent estates.

2.3. Felling Procedures

The following actions will effectively reduce potential fauna mortality due to removal of vegetation and construction techniques as part of the proposed development:

- It is intended that, in regard to the clearing process and associated staff, the spotter-catcher shall confirm that the tree felling operation shall occur in a manner set out below that allows safe dispersal or capture of fauna, O.H.S. issues notwithstanding.
- All static fauna valued trees will be clearly identified with high visibility tape or marker spray paint.
- There will be specific ground searches for terrestrial fauna prior to clearing and observation of the clearing process and if located temporary shelter areas to be allocated to minimise stress and provide dispersal options will occur.
- The clearing of the under-story prior to felling of canopy trees, will occur after a final inspection to confirm absence of current or anticipated fauna activity. Removal of canopy trees prior to addressing static fauna values reduces the potential of secondary injury to arboreal fauna dispersing into trees to be removed.
- Addressing of static fauna values, specifically the hollow-bearing trees or termite mounds where wildlife may occur. Techniques applicable to this stage of spotter-catcher duties vary due to the site specifics regarding topography, structure and stature of trees and OHS limitations.
- Hollow-bearing trees will be excluded from clearing processes for a period of 24 hours to allow for fauna to disperse due to disturbance and provide for greater observation opportunities to locate potential fauna shelter
- Addressing of static fauna values, specifically the hollow-bearing trees or termite mounds where wildlife may occur. Techniques applicable to this stage of spotter-catcher duties vary due to the site specifics regarding topography, structure and stature of trees and OHS limitations.

- Hollow-bearing trees will be accessed and examined with torch, chainsaw, buffer rags with all fauna located during spotter-catcher duties to be assessed for injury, maturity prior to being placed in a cotton capture bag.
- Hollow-bearing trees will be excluded from processing for a period of 24 hrs to allow natural dispersal of small fauna unlikely to be located.
- Where required, WHS limitations notwithstanding, the usage of an elevated working platform will occur to access Hollow-bearing trees with significant species or numbers of breeding birds prior to clearing and further processing.

2.4. Aquatic Fauna

It is not envisaged that aquatic dewatering activities will be required within the proposed clearing area; however pooled water and drainage features (if present) will be inspected during terrestrial load reduction activities ahead of the clearing front. The following recommendations are made to mitigate impacts to potentially occupant fauna:

- Inspection of banks, peripheral vegetation and other immediate terrestrial microhabitats;
- Identification of potential fauna values including: logs, rocks, artificial structures, discarded rubbish and burrows;
- Targeted searched for frog egg deposition sites on debris, bank edges, water surface and vegetation.

2.5. Terrestrial and Arboreal Fauna

Overall the site contains medium value refugial opportunities for arboreal and terrestrial fauna species. The species expected within the site are likely to primarily reflect common fauna assemblages for the region however provisions are proposed directly for common fauna and species of conservation significance. It is advised that all identified fauna habitats onsite be inspected by a DES approved Fauna Spotter prior to vegetation clearing and all vegetation removal activities be supervised during the clearing process. Terrestrial load reduction activities will be conducted ahead of the clearing front where possible. Fauna captured will be relocated to adjacent habitat consistent with the life history requirements of the species requiring translocation.

2.6. Threatened species (Specific Provisions)

The potential presence of significant fauna; that is fauna scheduled as Endangered, Vulnerable, Near threatened (EVNT) in the Queensland *Nature Conservation Act 1992* or the Commonwealth *Environmental Protection & Biodiversity Act 1999* not listed in this report will be considered by the wildlife spotter-catcher during clearing processes.

If and where an EVNT species is located onsite an immediate cessation of clearing process and an exclusion zone defined by high visibility tape will occur. Relevant authorities, the GCCC environmental assessment &

compliance section and DES south coast Wildlife Officer will be notified to confirm issues and where required arrange a site inspection prior to commencement of clearing process.

2.6.1 Koala

Due the high component of Koala feed species present on the site and confirmed presence Koalas noted during prior survey, a Koala Management Plan is included to confirm spotter-catcher actions in the event of random Koala movements.

In accordance with the *Nature Conservation (Koala) Conservation Plan 2017*, the below actions will be directed to allow Koala dispersal without human intervention.

- A spotter will be required to conduct a pre-clearing inspection prior to daily commencement with one spotter catcher per clearing machine to be present for all the clearing process to occur.
- It is intended that the direction of the clearing process will occur from the edge of existing road systems to the nearest edge of retained habitat to encourage Koala dispersal out of clearing zones and avoid land-locking of Koalas within the clearing zone.
- During the clearing process, there will a differentiation between *Complete cover trees* and *See-through trees* where *Complete cover trees* will be retained until the spotter-catcher responsible is certain of absence of Koalas prior to the tree being felled.
- A *Complete cover tree* is defined as a tree with luxuriant foliage that does not allow confirmation of absence of Koalas without a full 360 degree viewing and if required extended viewing during peripheral clearing operations to detect movement. A *See-through tree* is defined as sparsely foliated tree where a 360 degree viewing confirms the absence of Koalas
- There will be a daily inspection of trees to be removed to confirm the absence of koalas or other fauna prior to felling the tree. Where located, Koalas in trees will be clearly identified by high visibility tape or paint and site foreman and clearing crew will be informed to confirm presence of animal in clearing area.
- When located, Clearing Exclusion zones around the active Koala tree will be set out where no activity can occur for the day's duration to confirm animal safety and allow dispersal. Secondly, Koala response to peripheral human activity will be monitored by spotter-catcher to confirm acceptable disturbance and if required, cessation of clearing process.
- Koala response to peripheral human activity will be monitored by Koala spotter-catcher to confirm acceptable disturbance and if required, cessation of clearing process. A four point monitoring protocol utilized for Koalas within the clearing zone is as follows.

0 - Koala sleeping in perch; normal behaviour

1 - Koala awake, alert, resting position in perch – acceptable disturbance

2 - Koala awake, alert to shifting position in same perch – acceptable disturbance

3 - Koala moving perch position within tree - unacceptable disturbance, increased exclusion zone

4 – Koala exhibiting panicked behaviour, vocalizations - unacceptable disturbance, immediate cessation of clearing process within general area of Koala.

2.6.2 Glossy Black Cockatoo

Glossy Cockatoos are noted for breeding in secluded gullies, often in association with other breeding pairs, with a high proportion of significant hollow-bearing trees (HBT) present and feed species present as understory.

The site contains limited hollow-bearing trees with potentially suitable hollows and moderate feed value that is partially consistent with noted breeding site features, limited by site proximity to motorway and the absence of breeding records for the area.

- As such it is possible that suitable hollow bearing trees could be utilized, the following actions to confirm the presence or absence of Glossy Black Cockatoo on site will occur.
- All hollow-bearing trees with suitable hollows will be retained to the latter stages of clearing process with on-going observation occurring at early morning and late afternoon periods to confirm absence prior to felling.
- Where possible, high valued hollow-bearing trees with suitable hollows to be removed will be accessed by Elevated Working platform to confirm absence of fauna or trace prior to felling.
- If Glossy Cockatoos are observed in proximity to suitable hollows the tree with proximal trees will be retained to confirm presence; if confirmed disturbance will be minimised and the defined area will be retained for duration of the breeding season.

3. Wildlife Capture and Removal Plan

Relocation of native fauna is a strategy that may be required during the course of developmental works to up-hold the project's required nature conservation, animal welfare and human safety objectives. In all circumstance where native fauna are required to be relocated it must be done so, or under the direct supervision of, a suitably licensed fauna spotter/catcher.

Suitable release sites for fauna take into account a number of considerations, depending on the ecology of the animal. These considerations include:

- Adequate food supply and presence of prey species;
- Adequate housing and nesting habitat such as tree hollows, dense vegetation, suitable areas to burrow;
- Similar vegetation type, eg. Similar tree species, density, and location to water;
- Appropriate social group, eg. Releasing all gliders from one family group into the same area;
- Releasing territorial animals as close as practical to their home range (within 1km or less), but far enough away that they won't re-disperse to the clearing zone;
- Habitat corridors that are of suitable size, and connect to other suitable habitat for further dispersal to avoid overpopulation of the release site., and;
- Time of day: Nocturnal release for nocturnally active animals .Additionally, if aquatic animals are required to be captured in the event of a dewatering, potential release locations will consider the following factors:
 - Recent rainfall and observed flow velocity of waterways or river;
 - Composition of riparian vegetation (with preference for presence of native flora species and dense/overhanging vegetation);
 - Diversity of habitats available (i.e. riffles/pools);
 - Presence of invasive species (i.e. Carp or Gambusia);
 - Potential availability of food resources (i.e. for Turtles); and
 - Evidence of overpopulation of relevant species.

4. Wildlife Contingency Plan

In the event sick, injured or orphaned protected animals are encountered during the course of the project they shall be administered to in accordance with the *Code of Practice Care of Sick, Injured or Orphaned Protected Animals in Queensland* under the *Nature Conservation Act 1992*. The stages in which injuries or illness are described under the code are as follows:

- **Critical:** Injuries or illnesses that are life-threatening; for example, an animal that has been struck by a car and has serious head injuries.
- **Serious:** Injuries or illnesses that might reasonably be expected to cause moderate pain (but are not immediately life-threatening), and the animal is not showing obvious signs of distress or pain, or significantly reduced mental activity; for example an animal with a closed fracture but no other apparent injuries and that is alert and responsive.
- **Mild:** The injuries or illness of an animal appear to cause little discomfort, pain or function loss and are not life-threatening (even without immediate vet treatment); for example superficial cuts, superficial bruising or orphaned animals suffering from mild dehydration.

Where observations of Koala by senior FSC / permit holder indicates poor health or injury, relevant authorities, the GCCC environmental assessment & compliance section and DES south coast Wildlife Officer will be notified to confirm issues and where required seek approval to capture/relocate the Koala to suitable veterinary care designated below.

Currumbin Wildlife Hospital

Address: 27 Millers Dr, Currumbin QLD 4223

Phone: (07) 5534 0813

Or After Hours:

Wildcare Australia

Wildlife Rescue Service

Phone (07) 5527 2444

Animals Emergency Services (as a last resort)

04 Eastlake Street, Carrara, QLD 4211

Phone: (07) 5559 1599

5. Wildlife Storage and Housing Plan

For wildlife requiring storage, temporary housing and transportation to release sites and/or to a wildlife carer or veterinarian, guidelines set out in the Code and TWC's Animal Ethics Permit will be followed. Dependent on the species of animal and condition of the animal, temporary storage and housing of animals will be as follows:

- **Calico bags:** Calico bags will be used to temporarily house fauna such as snakes, lizards and small mammals (including microbats), Bags will range in size from 200mm x 200mm to 600mm x 1800mm. Bag selection will vary according to the size of animals to be placed in them. In the case of snakes a "hoop bag" may be used to facilitate capture. The hoop is approximately 500mm in diameter attached to a handle. The bag is placed around the hoop ensuring a greater area in which to pass the snake through into the bag
- **Plastic holding tubs/containers/animal crate:** Plastic holding tubs/containers/crates will be used to temporarily house fauna such as snakes, lizards, frogs, small mammals and birds (Plastic holding tubs/containers/crates will range in size from 150mm x 150mm x 120mm to 500mm x 400mm x 400mm. Plastic holding tubs/containers/crates selection will vary according to the size and number of animals to be placed in them. In addition to this, material is used to line the tub/crate to ensure the animals won't lose its footing. This may include folded towels on the bottom of the crate or a fitted pad. These items are washed between each use to reduce the spread of disease/parasites.

Section 9 of the Code relates to how transportation of wildlife should be undertaken. The following will be adhered to when transporting wildlife to the vet and/or carer:

- Additional pain or distress of the animal is to be avoided;
- Wildlife should only be transported when necessary;
- Transport containers must be appropriate for the species (size, strength and behaviour of species being moved);
- Transport containers must be designed and maintained in a way as to:
 - Prevent injury;
 - Prevent escape;
 - Prevent rolling/tipping during transit;
 - Prevent damage to plumage (feathers);
 - Be hygienic;
 - Minimise stress and
 - Be suitably ventilated.
- Non-compatible species must not be transported in a manner which allows for visual or physical contact;
- Containers must be secured to prevent movement and provide protection from direct sunlight, wind and rain;
- Venomous, dangerous or potentially disease transmitting animals must be clearly marked with warning labels (i.e. Caution –'venomous snake' or 'live bat') and be locked and secured.

6. Wildlife Release and Disposal Plan

All vertebrate fauna species encountered (relocated, moved, injured or killed) during the preclearing, construction and operational works will be recorded and a summary of events will be presented to the client within the post clearing report.

The fauna spotter catcher will collect information pertaining to each capture, sighting and release of all animals interacted with onsite including:

- a. species;
- b. identification name or number;
- c. sex (M, F, or unknown);
- d. approximate age or age class (neonate, juvenile, sub-adult, adult);
- e. time and date of capture;
- f. method of capture;
- g. exact point of capture (GPS point);
- h. state of health;
- i. incidents associated with capture likely to affect the animal;
- j. veterinary intervention or treatments;
- k. time held in captivity;
- l. disposal (euthanasia, re-release, translocation etc);
- m. date and time of disposal;
- n. details of disposal (if released, exact point of release GPS);
- o. for released animals: distance in metres from point of capture to point of release.

7. Post Works Impact Minimisation

Where fauna is found on site during the absence of the fauna spotter (i.e., on days or in areas where no fauna spotter catcher is required), the following will occur:

- Cease works at the location of the animal;
- Report the animal immediately to the site foreman and environmental officer
- Contact the fauna spotter catcher
- Do not attempt to touch or catch an animal as it may be dangerous;
- Maintain site and known area of animal;
- If required, set up an exclusion zone around the animal;
- Once the TWC fauna spotter catcher arrives, take them to the animal.
- The fauna spotter catcher will follow the procedures outlined above.

8. Recommendations

A number of conclusions and recommendations are presented, with the specific intention of providing a comprehensive management structure to facilitate minimal impact to fauna during the clearing of vegetation and subsequent disturbance of habitats. The directives given by Fauna Spotter Catchers should adhere to the Code and adopt implementation of proven specific management techniques for identified habitat types and compliance with legislation relevant to the activity. Fauna management is presented here specific to EVNT fauna, general terrestrial, arboreal and aquatic fauna. Although each is treated separately, overlap does occur within target techniques providing a comprehensive approach for target species of all conservation significance.

Wildlife Protection and Management Plan (WPMP)

The Heights - Precinct C1& C2
Rifle Range Road, Pimpama

Tomewin Wildlife Consultancy
August 2018

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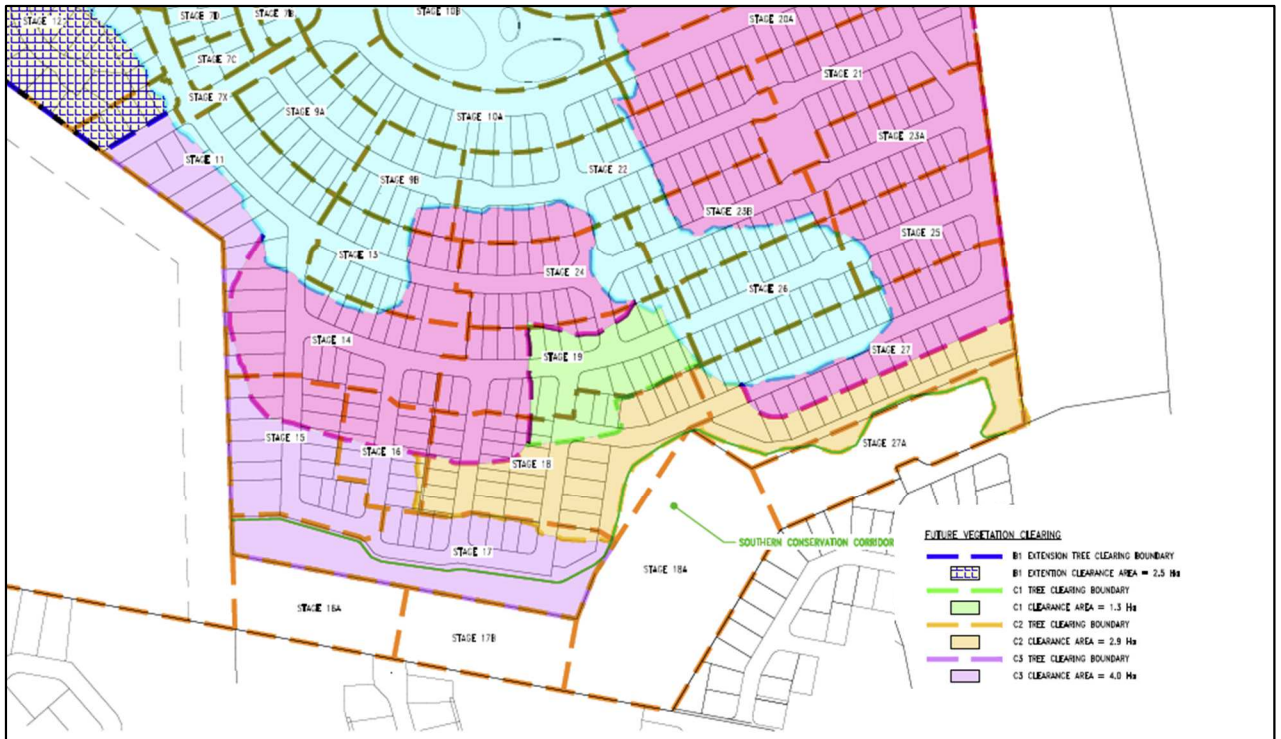


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Electrical Awareness	Frank Court, Brendan Lackey,
Operate a 4wd vehicle in the field	Frank Court, Brendan Lackey
Canoe & water safety > 2 Meters	Frank Court, Brendan Lackey
Lyssa Virus vaccination	Frank Court,
Safe venomous course snake Handling	Frank Court,

2. Survey Methodology

Field surveys were carried out on the 14th August 2018. Survey methods included walking the entire Precinct C1 & C2 clearing extent to identify key features and potential habitat for native wildlife.

The following survey techniques applied were utilised to confirm the actual and anticipated wildlife present on site.

- Short duration survey to confirm fauna value prior to clearing.
- Observation of canopy and under-story vegetation for active bird nests, possum drays and termite mounds
- Observation of site to locate and identify actual wildlife present.
- Consideration of time of year, actual and anticipated wildlife to determine current breeding status.
- Examination of favoured feed trees bark to 6 m height for Koala, possum, glider trace to assess usage/incidence
- Ground searches for scats under favoured or current feed trees were conducted.
- Binocular search of canopy vegetation to locate visibly hollow bearing trees or potentially hollow bearing trees.

2.1. Specific Methodology for Koala

The following survey techniques applied were utilised to confirm the potential presence of Koala with the designated clearing zone.

- Identification of noted Koala feed trees *Eucalyptus propinqua*, *Eucalyptus resinifera*, *Eucalytus microcorys*, *Corymbia maculata*, *Eucalytus tereticornis* within the site noting the health of growth, frequency of occurrence and the associated topography to determine core feed areas for Koalas.
- Two man binocular searches transects of core areas.
- Examination of favoured feed trees bark to 6 m height for trace with ground searches for scats under favoured feed trees was conducted.
- Spotlighting to confirm presence of nocturnal fauna

3. Results

The site and proposed clearing timeframe was surveyed in late winter during a period of low breeding activity. General field conditions were cool clear conditions following a prolonged spell of hot, dry weather.

3.1. Terrestrial Habitat Features / Vegetation Communities

The site contains a dry eucalyptus forest habitat area with canopy species including large *Eucalyptus propinqua*, *Eucalytus microcorys* *Corymbia maculata*, *Eucalytus tereticornis*, *Eucalyptus carnea*, *Eucalyptus siderophloia*, *Eucalyptus tindaliae*, *Lophostenum confertus* and sub-canopy species, *Alphitonia excelsa*, *Acacia concurrens*, *Allocasurina littoralis*.

Eucalyptus propinqua, *Eucalytus microcorys*, *Corymbia maculata*, *Eucalytus tereticornis* noted as a Koala feed trees are present on the ridge with reduced feed value due to current dry conditions.

The site has connectivity to retained and currently vegetated areas.

3.2. Arboreal Habitat Features

Areas proximal to Kiama Crescent are generally disturbed by prior rural residential land-use with a minor dam and minimal arboreal fauna shelter values.

The ridge contains 13 visibly or potentially hollow-bearing trees with complex branching structure allowing for hidden hollows to occur including 5 prior accessed arboreal termite mounds and minor stag trees.

Stick nest structures, (currently inactive) associated with common birds were located.

3.3. Actual & / or Anticipated Fauna Species List

Table 2: Actual &/or Anticipated Fauna Species List

Common name	Scientific name	Method of Detection
Echidna	<i>Tachyglossus aculeatus</i>	trace
Yellow-footed Antechinus	<i>Antechinus flaviceps</i>	anticipated
Bandicoot	<i>Isodon macrourus</i>	trace
Squirrel Glider	<i>Petaurus norfolcensis</i>	spotlighting – prior to FSC actions
Sugar Glider	<i>Petaurus breviceps</i>	spotlighting – prior to FSC actions
Brush-tail Possum	<i>Trichosurus vulpecula</i>	spotlighting – prior to FSC actions
Koala	<i>Phascolarctus cinereus</i>	observed – prior to FSC actions
Insect bats	Anticipated	anticipated

Common name	Scientific name	Method of Detection
Tawny Frogmouth	<i>Podargus strigoides</i>	observed
Aust Owllet-nightjar	<i>Aegotheles cristatus</i>	anticipated
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	observed
Scaly-breasted Lorikeet	<i>Trichoglossus chlorolepidotus</i>	observed
Red-backed Wren	<i>Malurus melanocephalus</i>	observed
Variegated Wren	<i>Malurus lamberti</i>	observed
Common territorial birds	Magpie, noisy miner, pied butcherbird, Kookaburra	observed
Robust Velvet Gecko	<i>Oedura robusta</i>	anticipated
Goanna	<i>Varanus varius</i>	anticipated
Barred-sided Skink	<i>Eulamprus tenuis</i>	anticipated
Small-eyed Snake	<i>Cryptophis nigrescens</i>	anticipated
Carpet Snake	<i>Morelia variegata</i>	anticipated
Yellow-faced Whip-snake	<i>Demansia psammophis</i>	anticipated
Bearded Dragon	<i>Pogona barbata</i>	observed
Brisbane Turtle	<i>Emydura macquarii</i>	observed
Red Bellied Black Snake	<i>Pseudoechis porphyriacus</i>	anticipated
Large Green Tree Frog	<i>Litoria caerulea</i>	anticipated
Graceful Tree Frog	<i>Litoria gracilentia</i>	anticipated

3.4. Threatened Species

Results of a using the EPBC Act Protected Matters Search Tool and NCA Wildlife Online Search, identified the potential for conservation significant fauna species to occur within proximity of the site.

3.4.1 Koala

Pre-clearing surveys identified the presence of mature Koala fodder species within the works extent including, *Eucalyptus propinqua*, *Eucalyptus resinifera*, *Eucalyptus microcorys* *Corymbia maculata*, *Eucalyptus tereticornis*, *Eucalyptus seeana* *Eucalyptus siderophloia*, *Eucalyptus tindaliae*. State Planning Policy 2017 (SPP) mapping also identified the site is mapped as containing areas of Bushland and Rehabilitation Habitat for the Koala.

Pre-clearing surveys identified one Koala had been previously recorded on the site within the last 12 months. It is recommended that dedicated methodologies be employed by a qualified Fauna Spotter specific to Koala prior to and during vegetation clearing.

3.4.2 Glossy Black Cockatoo

Pre clearing surveys identified the presence of *Allocasurina littoralis* noted as a major feed source for Glossy Black Cockatoo *Calyptorhynchus lathami* with confirmed observations of the species noted onsite during prior FSC surveys with the below techniques employed to determine the potential of occurrence.

- Observation of Allocasurina for frequency, maturity and associated fruiting bodies abundance
- Evaluation of located hollow-bearing trees for major hollow development suitable for Glossy Black Cockatoo
- Specific crepuscular searches for glossy black Cockatoo utilizing the site as a roost area were conducted

4. Wildlife Habitat Impact Assessment

The development of Precinct BC1 & C2 will have a direct impact on fauna habitat features observed by the pre-clearance survey. It is also important to consider direct impacts associated with existing and future residential developmental areas.

Impacts to fauna as a result of vegetation clearance will include the following:

- Loss of trees for foraging, roosting and nesting;
- Loss of hollow-bearing trees for nesting and refuge;
- Loss of habitat and foraging areas for terrestrial species;
- Loss of overall habitat; and
- Potential loss of abundance of some local species.

Other impacts may include:

- Injury or death during felling of trees;
- Injury or death from machinery; and
- Alteration of nesting, foraging and general activities due to disturbance.

The Heights has been designed to retain the northern, southern and central conservation corridors to ensure connectivity within and across the site is maintained. These corridors will undergo rehabilitation in the form of weed removal, revegetation and assisted regeneration.

Overall the site contains medium value refugial opportunities for arboreal and terrestrial fauna species. The species expected within the site are likely to reflect common fauna for the region, with the exception of the Koala which is listed at both the Commonwealth and State level and the Glossy Black Cockatoo listed at the State level. Specific methodologies for this species will be detailed within the Wildlife and Habitat Impact Mitigation Plan (WHIMP). A number of conclusions and recommendations will be presented in the WHIMP, to ensure facilitate minimal impact to fauna during the vegetation clearing.

It is recommended that all identified fauna habitats onsite be inspected by a DES approved Fauna Spotter prior to vegetation clearing and all vegetation removal activities be supervised during the clearing process (as per the KMP). Fauna captured will be relocated to adjacent habitat. The directives given by Fauna Spotter Catchers should embrace a “best practice” in accordance with ‘the Code’ and must include implementation of proven specific management techniques for identified habitat types and compliance with legislation relevant to the activity.

It is recommended that in the event any nests which contain chicks are identified during clearing be left until fledged, and those that are in a construction phase should be dismantled to prevent further nesting activity.

Attachment 3

Signed Pre-start Attendance Sheet
(Toolbox Talk)

TOOLBOX

PRE-START RECORD



Project: **THE HEIGHTS** Supervisor: **John Rimmer** Date: **24/8/18**

1. Safety, Environmental, Training, Community or Quality concerns from yesterday:
 # PERMITS # Tree Clearing # Make site safe for weekend.
 # PPE # Rain forecast.
 # START CARDS
 # INDUCTIONS

2. Weather:
 Rain in gauge at 7am: _____ mm
 Weather Forecast for Today: FINE/CLEAR OVERCAST SHOWERS/RAIN RAIN WIND

Is heat stress a risk today? YES NO If Yes - List heat stress management controls:
 3. Today's work: BEFORE we start work, is everyone in a FIT and RESTED condition for work? YES NO Fitness for Work Testing Undertaken (BAC) YES NO

List today's works/activities:

- # Sully Billy finish Sewer + Road Crossing then Park Variation
- # Person Continue
- # Classic not on site
- # ACP Pave Paths.
- # Tash. lunch Room Clean. Drill Holes covered. Turf. fix neck forms cleaned. Ben's
- # RAT Tree Cleaning + Spittle Catcher
- # GH. v Plan.
- RPS Clearing limit.

TOOLBOX TALK
ON KONGA MANAGEMENT
CULTURAL HERITAGE
AND SITE SAFETY.

4. Do we have documented systems of work that are specific to the work for today?
 Yes - the following system of work will be reviewed and applied: YES NO
 Golding Urban Safe Work Method Statements (SWMS) Are read and signed onto at induction and specific SWMS are attached to Issued Permits

PERMITS FOR TODAY:
 Permits: TESP# _____ TRAFFIC# _____ OHPL# _____ CONFINED SPACE# _____ OTHER: _____

6. Key Risks and Hazards Today: Please circle those applicable or add others.

<input checked="" type="checkbox"/> Mobile Plant Interaction	<input type="checkbox"/> Deep Trench/Exca	<input type="checkbox"/> Noise
<input type="checkbox"/> Live Traffic	<input type="checkbox"/> Live Services	<input type="checkbox"/> Dust
<input type="checkbox"/> Power Tools/Equipment	<input type="checkbox"/> Overhead Powerlin	<input checked="" type="checkbox"/> Hazardous Manual Tasks
<input type="checkbox"/> Temperature Extremes	<input type="checkbox"/> Confined Spaces	<input type="checkbox"/> Access/Egress
<input checked="" type="checkbox"/> Ground Conditions	<input checked="" type="checkbox"/> Underfoot Condi	<input type="checkbox"/> Other (Please list) Underground Services

7. Key Controls today: Please circle those applicable or add others.

<input checked="" type="checkbox"/> Positive Communications	<input type="checkbox"/> Exclusion Zones	<input type="checkbox"/> VOC Quick Cut Saw
<input checked="" type="checkbox"/> Flashing Lights	<input type="checkbox"/> Ladders/Access Established	
<input checked="" type="checkbox"/> Bench/Batter/Shoring	<input type="checkbox"/> Barriers and Barricades	
<input checked="" type="checkbox"/> PPE	<input checked="" type="checkbox"/> Signage	
<input type="checkbox"/> Traffic Control	<input type="checkbox"/> Other (Please list)	

Reviewed by Superintendent/Supervisor Name: **John Rimmer** Signature: _____ Date: **24/8/18**

TOOLBOX - KONA MANAGEMENT - CULTURAL HERITAGE + SITE SAFETY

Pre-Start and Tool Box Talks Fitness for Work



PRE-START ATTENDANCE SHEET and ALCOHOL TEST RECORD

TODAYS DATE:	24/8/16
SUPERVISOR:	OK
Calibration Date:	
Name of FFW Tester:	

Equipment Type:	
Equipment ID:	

This form is used to record Shift Pre-start attendance and site alcohol tests. Positive results must be recorded individually on a separate Alcohol Test Record. This information is subject to Golding's privacy policy and must be collected and maintained confidentially.

No.	Full Name	Employer	BAC Reading	Signature
1	Scott McCall	Golding		
2	JOSHUA LOPEZ	WORKPAL		
3	DAN WEBB	Pensar		
4	Sam WHITE	Pensar		
5	M MACKINDER	ACP		
6	Billy O'Donoghue	HB		
7	R Mackinder	ACP		
8	M. MORRIS	RAT		
9	C LEISNER	RAT		
10	RON CARSWELL	R.A.T.		
11	FRANK COURT	TWC		
12	Evan Court	TWC		
13	TROY CARSWELL	RAT		
14	Leah Murchin	Pensar		
15	M. BIN KEEL	PRANCI		
16	D. DAVID PORT	GOLDING		
17	GARY HEARBY	GOLDING		
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Toolbox Talk Koala Management & Cultural Heritage 24.08.18

Conducted by SHET Advisor D.Davenport
attended by Golding Project Manager G.Hegarty

Overview:

- Read through Koala Management Plan with additional information from Tomewin Wildlife Consultancy Spotter-catcher Report Pre-Clearing Fauna Value Assessment.
- Tomewin Wildlife Consultancy owner Frank Court was present at the toolbox and spoke, giving additional information on fauna management and specifically Koala Management.
- Tomewin Wildlife personnel will be present during all tree clearing works.
- Read through Aboriginal Cultural Heritage Induction, prepared by Jabree Limited (Gold Coast Native Title Group) June 2015. Highlighting areas specific to The Heights project and the area of tree clearing, in relation to Aboriginal cultural heritage.
- Overview of Golding site safety requirements, read and sign onto Golding SWMS and Recycled Australian Timber(RAT) SWMS. Site familiarisation conducted with RAT personnel, all have been previously site inducted, issued with site handout.

Spotter-catcher Report Pre-Clearing Fauna Value Assessment

Client: Golding on behalf of client

Site: Precinct C1, C2 the Heights Estate, Rifle Range Road, Pimpama

Date Surveyed: 14/8/2018

1.0 Site Location / DA proposal:

The site is the third precinct for the Heights Estate, Rifle range Road, Pimpama located to the south of the existing estate and to the east of recent tree clearing process. The specific project is tree clearance for real estate development.

2.0 Site Description:

The site is an area of dry eucalypt forest to wattle re-growth approximately 4ha located on a moderate slope ridge to steep slope including areas of prior rural residential land use to be cleared south of existing precincts.

3.0 Survey methodology

The following survey techniques applied were utilized to confirm the actual and anticipated wildlife present on site.

- Short duration survey to confirm fauna value prior to clearing.
- Observation of canopy and under-story vegetation for active bird nests, possum drays and termite mounds
- Observation of site to locate and identify actual wildlife present.
- Consideration of time of year, actual and anticipated wildlife to determine current breeding status.
- Examination of favored feed trees bark to 6 m height for Koala, possum, glider trace to assess usage/incidence
- Ground searches for scats under favored or current feed trees were conducted.
- Binocular search of canopy vegetation to locate visibly hollow bearing trees or potentially hollow bearing trees.

4.0 Site Fauna Values:

The site was surveyed for fauna value and the following issues noted.

- The site and proposed clearing timeframe was surveyed in late winter during a period of low breeding activity. General field conditions were cool clear conditions following a prolonged spell of hot, dry weather
- The site contains a dry eucalyptus forest habitat area with canopy species including large *Eucalyptus propinqua*, *Eucalytus microcorys* *Corymbia maculata*, *Eucalytus tereticornis*, *Eucalyptus carnea*, *Eucalyptus siderophloia*, *Eucalyptus tindaliae*, *Lophostenum confertus* and sub-canopy species, *Alphitonia excelsa*, *Acacia concurrens*, *Allocasurina littoralis*.
- *Eucalyptus propinqua*, *Eucalytus microcorys*, *Corymbia maculata*, *Eucalytus tereticornis* noted as a Koala feed trees are present on the ridge with reduced feed value due to current dry conditions.
- Areas proximal to Kiama Crescent are generally disturbed by prior rural residential land-use with a minor dam and minimal arboreal fauna shelter values.
- The ridge contains 13 visibly or potentially hollow-bearing trees with complex branching structure allowing for hidden hollows to occur including 5 prior accessed arboreal termite mounds and minor stag trees.
- Stick nest structures, (currently inactive) associated with common birds were located.

- The site has connectivity to retained and currently vegetated areas.

5.0 Actual &/or Anticipated Fauna Species List

Common name	Scientific name	Method of Detection
Echidna	<i>Tachyglossus aculeatus</i>	trace
Yellow-footed Antechinus	<i>Antechinus flaviceps</i>	Anticipated
Bandicoot	<i>Isodon macrourus</i>	trace
Squirrel Glider	<i>Petaurus norfolcensis</i>	Spotlighting – prior FSC actions
Sugar Glider	<i>Petaurus breviceps</i>	Spotlighting – prior FSC actions
Brush-tail Possum	<i>Trichosurus vulpecula</i>	Spotlighting – prior FSC actions
Koala	<i>Phascolarctus cinereus</i>	observed – prior FSC actions
Insect bats		Anticipated
Tawny Frogmouth	<i>Podargus strigoides</i>	observed
Aust Owllet-nightjar	<i>Aegotheles cristatus</i>	anticipated
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	observed
Scaly-breasted Lorikeet	<i>Trichoglossus chlorolepidotus</i>	observed
Red-backed Wren	<i>Malurus melanocephalus</i>	observed
Variegated Wren	<i>Malurus lamberti</i>	observed
Common territorial birds	Magpie, noisy miner, pied butcherbird, Kookaburra	observed
Robust Velvet Gecko	<i>Oedura robusta</i>	Anticipated
Goanna	<i>Varanus varius</i>	Anticipated
Barred-sided Skink	<i>Eulamprus tenuis</i>	Anticipated
Small-eyed Snake	<i>Cryptophis nigrescens</i>	Anticipated
Carpet Snake	<i>Morelia variegata</i>	Anticipated
Yellow-faced Whip-snake	<i>Demansia psammophis</i>	Anticipated
Bearded Dragon	<i>Pogona barbata</i>	Observed
Brisbane Turtle	<i>Emydura macquarii</i>	observed
Freshwater eel	<i>Anguilla reinhardtii</i>	Anticipated
Red Bellied Black Snake	<i>Pseudoechis porphyriacus</i>	Anticipated
Large Green Tree Frog	<i>Litoria caerulea</i>	Anticipated
Graceful Tree Frog	<i>Litoria gracilenta</i>	Anticipated

6.0 Recommendations:

The proposed site contains early mature to mature eucalypt canopy of low-moderate feed, shelter values with proximity to intact habitat to be considered during spotter-catcher actions. The site contains a number of habitat trees with slopes limiting EWP access opportunities. The site contains areas of Koala feed trees and the presence of significant fauna is considered in specific FMP provisions.

The presence of fauna located during survey requires a Fauna Management Plan (F.M.P), as per guidelines for spotter-catcher, June 2004.

Evaluation of the proposed development's impact (loss of habitat) adjacent to areas,(within 500 m) containing suitable habitat for all species listed concludes that all fauna located will require short distance relocation to retained habitat to the west.

As such spotter-catcher activity during clearing will include actions to confirm the absence of Koalas, addressing static fauna values and to provide liaison with the site foreman regarding any fauna activity that occurs after proposed spotter-catcher duties outlined below.

7.0 Fauna Management Plan

The Nature Conservation Act 1992 and the Nature Conservation Regulation 1994 Section 5 (d) (iii), Section 71, Section 72, Section (73 (a) requires that protected wildlife whose habitat will be destroyed by human activity, must be considered. Abidance with the legislation occurs through the formation of a FMP to address the issue.

The following actions will effectively reduce potential fauna mortality due to removal of vegetation and construction techniques as part of the proposed development.

- It is intended that, in regard to the clearing process and associated staff, the spotter-catcher shall confirm that the tree felling operation shall occur in a manner set out below that allows safe dispersal or capture of fauna, O.H.S. issues notwithstanding.
- All static fauna valued trees will be clearly identified with high visibility tape or marker spray paint.
- There will be specific ground searches for terrestrial fauna prior to clearing and observation of the clearing process and if located temporary shelter areas to be allocated to minimise stress and provide dispersal options will occur.
- The clearing of the under-story prior to felling of canopy trees, will occur after a final inspection to confirm absence of current or anticipated fauna activity. Removal of canopy trees prior to addressing static fauna values reduces the potential of secondary injury to arboreal fauna dispersing into trees to be removed.
- Addressing of static fauna values, specifically the hollow-bearing trees or termite mounds where wildlife may occur. Techniques applicable to this stage of spotter-catcher duties vary due to the site specifics regarding topography, structure and stature of trees and OHS limitations.
- Hollow-bearing trees will be excluded from clearing processes for a period of 24 hours to allow for fauna to disperse due to disturbance and provide for greater observation opportunities to locate potential fauna shelter
- Addressing of static fauna values, specifically the hollow-bearing trees or termite mounds where wildlife may occur. Techniques applicable to this stage of spotter-catcher duties vary due to the site specifics regarding topography, structure and stature of trees and OHS limitations.
- Hollow-bearing trees will be accessed and examined with torch, chainsaw, buffer rags with all fauna located during spotter-catcher duties to be assessed for injury, maturity prior to being placed in a cotton capture bag.
- Hollow-bearing trees will be excluded from processing for a period of 24 hrs to allow natural dispersal of small fauna unlikely to be located.

8.0 Koala management plan

Due the high component of Koala feed species present on the site and confirmed presence Koalas noted during prior survey, a Koala Management plan is included to confirm spotter-catcher actions in the event of random Koala movements.

In accordance with the Nature Conservation (Koala)) Conservation Plan 2006 and Management Program 2006 – 2016, the below actions will be directed to allow Koala dispersal without human intervention.

- A spotter will be required to conduct a pre-clearing inspection prior to daily commencement with one spotter catcher per clearing machine to be present for all the

clearing process to occur.

- It is intended that the direction of the clearing process will occur from the edge of existing road systems to the nearest edge of retained habitat to encourage Koala dispersal out of clearing zones and avoid land-locking of Koalas within the clearing zone.
- There will be a daily inspection of trees to be removed to confirm the absence of koalas or other fauna prior to felling the tree. Where located, Koalas in trees will be clearly identified by high visibility tape or paint and site foreman and clearing crew will be informed to confirm presence of animal in clearing area.
- When located, Clearing Exclusion zones around the active Koala tree will be set out where no activity can occur for the day's duration to confirm animal safety and allow dispersal. Secondly, Koala response to peripheral human activity will be monitored by spotter-catcher to confirm acceptable disturbance and if required, cessation of clearing process.

9.0 Significant fauna

- The potential presence of significant fauna; that is fauna scheduled as Endangered, Vulnerable, Near threatened (EVNT) in the *Queensland Nature Conservation Act 1992* or the *Commonwealth Environmental Protection & Biodiversity Act 1999* not listed in this report will be considered by the wildlife spotter-catcher during clearing processes.
- If and where an EVNT species is located onsite an immediate cessation of clearing process and an exclusion zone defined by high visibility tape will occur. Relevant authorities, the GCCC environmental assessment & compliance section and DERM south coast Wildlife Officer will be notified to confirm issues and where required arrange a site inspection prior to commencement of clearing process.

10.0 Proposed release sites

- Captured fauna will be held in cotton bags and/or transferred to holding boxes kept in suitable ambient conditions prior to release within normal activity times for the animal concerned.
- Any injured or juvenile fauna located that is incapable of dispersal will be taken to Currumbin Wildlife Sanctuary for fostering or treatment.
- The intention of the spotter-catcher action plan will be to locate and recover fauna to be released into suitable habitat at appropriate times in areas within 500 m of the clearing zones.

Frank Court,
Spotter-catcher, August 2018
Tomewin Wildlife Consultancy
Rehabilitation Permit no: **WIRP 16922016**
Address: P.O. box 970, Murwillumbah, 2484
Phone: Home- 0266 725627 Mobile: 0402103629
E-mail: tomewinwildlife@aapt.net.au

PRE-START RECORD



Project: THE HEIGHTS	Supervisor: John Rimmer	Date: 27/8/18
1. Safety, Environmental, Training, Community or Quality concerns from yesterday: # PERMITS # Blue Cones # Slippery Conditions # PPE delimitation cones # Stay off Turf. / vehicles to stay on Road # START CARDS # INDUCTIONS "Inductions"		
2. Weather:		
Rain in gauge at 7am: 52 mm		
Weather Forecast for Today:	<input type="checkbox"/> FINE/CLEAR <input type="checkbox"/> OVERCAST <input type="checkbox"/> SHOWERS/RAIN <input type="checkbox"/> RAIN <input type="checkbox"/> WIND	
Is heat stress a risk today?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If Yes - List heat stress management controls:	
3. Today's work:		
BEFORE we start work, is everyone in a FIT and RESTED condition for work?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Fitness for Work Testing Undertaken (BAC) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
List today's works/activities:		
# Sestly Water meters / Quality Tests. # Sork forms / Check all Environs # Billy day off. # Drill Rig Continue # Wall Builders Start Today / Timbers on Keels # Tree Clearing + Sizing Continue		
<div style="border: 2px solid yellow; padding: 10px; display: inline-block;"> Toolbox focus + Cultural Heritage for Tomewin Wildlife spotter 1x person </div>		
4. Do we have documented systems of work that are specific to the work for today? Yes - the following system of work will be reviewed and applied: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Golding Urban Safe Work Method Statements (SWMS) Are read and signed onto at induction and specific SWMS are attached to Issued Permits		
PERMITS FOR TODAY: Permits: TESP# TRAFFIC# OHPL# CONFINED SPACE# OTHER:		
6. Key Risks and Hazards Today: Please circle those applicable or add others.		
<input checked="" type="checkbox"/> Mobile Plant Interaction <input type="checkbox"/> Live Traffic <input type="checkbox"/> Power Tools/Equipment <input checked="" type="checkbox"/> Temperature Extremes <input type="checkbox"/> Ground Conditions	<input type="checkbox"/> Deep Trench/Exca <input type="checkbox"/> Live Services <input type="checkbox"/> Overhead Powerlin <input type="checkbox"/> Confined Spaces <input checked="" type="checkbox"/> Underfoot Condi	<input type="checkbox"/> Noise <input type="checkbox"/> Dust <input checked="" type="checkbox"/> Hazardous Manual Tasks <input type="checkbox"/> Access/Egress <input type="checkbox"/> Other (Please list) Underground Services
7. Key Controls today: Please circle those applicable or add others.		
<input checked="" type="checkbox"/> Positive Communications <input checked="" type="checkbox"/> Flashing Lights <input checked="" type="checkbox"/> Bench/Batter/Shoring <input checked="" type="checkbox"/> PPE <input type="checkbox"/> Traffic Control	<input checked="" type="checkbox"/> Exclusion Zones <input type="checkbox"/> Ladders/Access Established <input type="checkbox"/> Barriers and Barricades <input checked="" type="checkbox"/> Signage <input type="checkbox"/> Other (Please list)	<input type="checkbox"/> VOC Quick Cut Saw
Reviewed by Superintendent/Supervisor Name: John Rimmer Signature: Date: 27/8/17		



PRE-START ATTENDANCE SHEET and ALCOHOL TEST RECORD

TODAYS DATE:	27-8-18
SUPERVISOR:	<i>[Signature]</i>
Calibration Date:	
Name of FFW Tester:	

Equipment Type:	
Equipment ID:	

This form is used to record Shift Pre-start attendance and site alcohol tests. Positive results must be recorded individually on a separate Alcohol Test Record. This information is subject to Golding's privacy policy and must be collected and maintained confidentially.

No.	Full Name	Employer	BAC Reading	Signature
1	Scott McKinn	GOLDING		<i>[Signature]</i>
2	Luke Ginnelly	CLASSIC		<i>[Signature]</i>
3	McK Nally	RAT		<i>[Signature]</i>
4	JOSHUA COPE	WORKPAC		<i>[Signature]</i>
5	R. MACKINDER	ACP		<i>[Signature]</i>
6	R. Mackinder	ACP		<i>[Signature]</i>
7	A. Adamson	HD		<i>[Signature]</i>
8	Billy O'Donoghue	HD		<i>[Signature]</i>
9	CHAK BRISLEN	RAT		<i>[Signature]</i>
10	Row CARSWELL	RAT		<i>[Signature]</i>
11	Brendan Lockey	TWC		<i>[Signature]</i>
12	Gay Hegarty	GOLDING		<i>[Signature]</i>
13	Dun O'Neil (SIRE)	GOLDING		<i>[Signature]</i>
14	J. Poulson	CGA		<i>[Signature]</i>
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Attachment 4

Photos of Temporary Koala Exclusion Fencing

3. Temporary Fencing Photos



NOTES
 This plan was prepared as a desktop assessment tool.
 The information on this plan is not suitable for any other purpose.
 Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any party using or relying upon this plan for any purpose other than as a document prepared for the sole purpose of accompanying a development application and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.

<TA>Layer Sources

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Attachment 5

Photos of Permanent Koala Exclusion Fencing

4. Permanent Exclusion Fencing



NOTES
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Attachment 6

Photos of Wildlife Movement Solution

5. Wildlife Signs & Road Markings



NOTES
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Layer Sources
 Old State Cadastre and Mapping layers © State of Queensland (Department of Natural Resources and Mines) 2018. Updated data available at <http://qldspatialinformation.qld.gov.au/catalogue/>
 Aerial Imagery © Nearmap, 2018

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Legend



Issue	Date	Description	Drawn	Checked
A	6/02/2018	Preliminary	TC	MS
B	7/02/2019	ACR 2	TC	KG



Transverse Mercator | GDA 1994 | Zone 56 | 12.429 @ A3