



Annual Compliance Report

03 February 2022 to 02 February 2023 EPBC 2016/7797
Ormeau Quarry Expansion, 12 km north-west of Oxenford,
Queensland
Prepared for Boral Resources (QLD) Pty Ltd

28 April 2023

Job No. 10233 E

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



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Position	Principal Ecologist
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Date	28 April 2022

Document Control

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Acronyms and Abbreviations

ACR	Annual Compliance Report
DAWE	Department of Agriculture, Water and Environment (Cth) – former
DOR	Department of Resources (Qld)
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Cth)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
GCCC	Gold Coast City Council
ha	hectares
KCH	Koala critical habitat
km	kilometres
m	metres
MNES	Matters of National Environmental Significance
NCA	<i>Nature Conservation Act 1992</i> (Qld)
PMAV	Property Map of Assessable Vegetation
PMR	Protected Matters Report
RE	Regional Ecosystem
SHG	Saunders Havill Group
TEC	Threatened Ecological Community (under the EPBC Act)
VMA	<i>Vegetation Management Act 1999</i> (Qld)

Management Plans

BMP	Bushfire Management Plan, prepared by Land and Environment Consultants.
EMP	Environmental Management Plan, prepared by Saunders Havill Group, dated November, 2018.
KHMP	Koala Habitat Management Plan, prepared by Saunders Havill Group, dated September 2021.
KMP	Koala Management Plan, prepared by Saunders Havill Group, dated December 2021.
OMP	Offset Management Plan (EPBC 2016/7797), prepared by Saunders Havill Group, dated December 2018.
VPMP	Vertebrate Pest Management Plan, prepared by Saunders Havill Group, dated September 2021.
WMP	Weed Management Plan, prepared by Saunders Havill Group, dated July 2021.

1. Introduction

This EPBC Act Annual Compliance Report (ACR) has been prepared on behalf of Boral Resources (Qld) Pty Ltd (the Proponent) as per the EPBC Act approval transfer granted on 16 February 2018 for the Ormeau Quarry Expansion (the Project) located on Upper Ormeau Road, Kingsholme, Queensland (EPBC 2016/7797). This ACR relates to the reporting period starting on 3 February 2022 and ending on 2 February 2023 (Year 2).

In accordance with the approval granted on the 16 February 2018 under the *Environmental Protection and Biodiversity Act 1999* (EPBC Act), this ACR has been prepared in response to Condition 10 of the approval which states:

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

1.1. Reporting Period

This ACR details the status and compliance of the Project for the 12-month reporting period starting on the 3 February 2022 and ending on the 2 February 2023.

As per Condition 10 of the approval, the ACR must be published on the Proponent’s website and notification provided to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) within 3 months of the 12-month anniversary of the commencement of the action. The end of the three-month period for Year 2 is the 3 May 2023.

1.2. EPBC Approval

Boral Resources (Qld) Pty Ltd, as the Proponent of the Project (EPBC Act Referral 2016/7797) was issued with an approval by the former Department of the Environment and Energy (now DCCEEW) on the 16 February 2018, subject to conditions.

Key details related to the EPBC 2016/7797 approval, including variation conditions, are provided in **Table 1** below. Refer to **Appendix A** for EPBC approval.

Table 1: Approval Details

Commonwealth Reference	EPBC 2016/7797
Approval Holder	Boral Resources (Qld) Pty Ltd
ACN	009 671 809
Project Name on the Approval	Ormeau Quarry Expansion, 12km north-west of Oxenford, Queensland.
Approved Action	Thirty-eight hectare (38 ha) expansion of the existing Ormeau Quarry, including clearing of 38 ha of vegetation. The quarry expansion site is located on Upper Ormeau Road, 12 km north west of Oxenford; as

	described in the referral received by the Department on 13 October 2016 [See EPBC Act referral 2016/7797].
Controlling Provision(s)	Listed threatened species and communities (sections 18 & 18A)
Approval Date	16 February 2018
Expiry Date of the Approval	8 November 2057
Date of Commencement of the Action	3 February 2021
Address	578 Upper Ormeau Road, Kingsholme, Queensland, 4208
Local Government Area	Gold Coast City Council

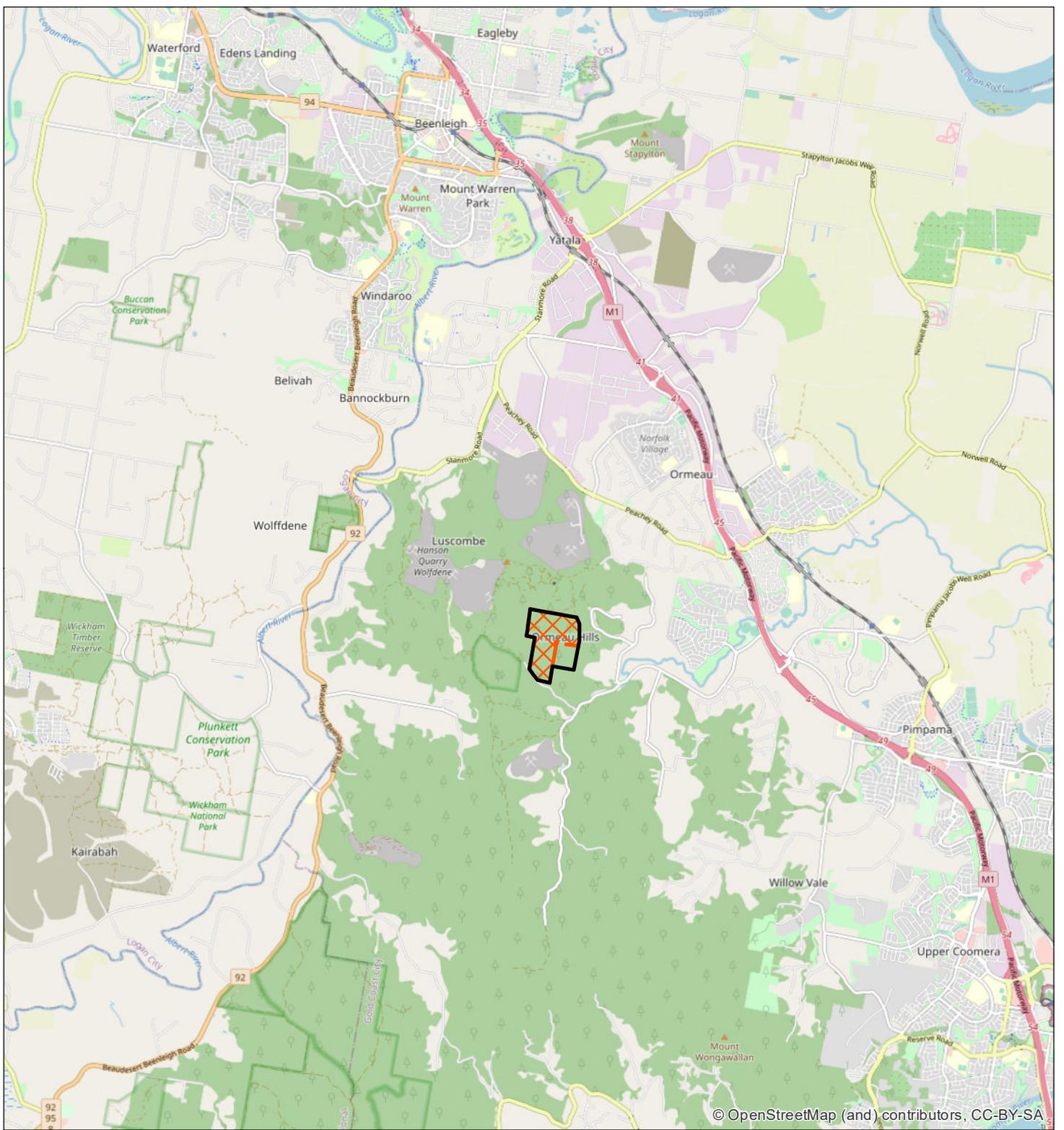
1.3. Site Context

Contextually, the Project is located in south-east Queensland, approximately 12 km north-west of Oxenford within the Gold Coast City Council Local Government Area. The Project is surrounded by rural and rural residential allotments, remnant vegetation with other quarries in the greater landscape. Refer to **Figure 1** for the Site Context and **Figure 2** for Site Aerial.

1.4. Overview of Key Activities and Achievements

During Year 2 of the Project, the following development and environmental management activities occurred:

- Clearing of 1.09 ha Koala critical habitat (KCH) within impact area.
- Implementation of Bushfire Management Plan, Weed Management Plan, Koala Habitat (Rehabilitation) Management Plan and Vertebrate Pest Management Plan for offset site.
- Habitat quality monitoring surveys within offset area utilising the Modified Habitat Quality Assessment (MHQA) methodology to ascertain habitat quality of vegetation compared to baseline conditions.
- Weed mapping targeting Weeds of National Significant (WONS), conducted by SHG across offset area.
- Bushcare Services continued the treatment of WONS across the offset site.
- Non-native vertebrate pest monitoring services were carried out within the offset area by Biodiversity Australia and Saunders Havill Group. Monitoring surveys involved the use of passive infrared monitoring cameras in accordance with the Vertebrate Pest Management Plan (VPMP) during summer/autumn from February to March. *Vulpes vulpes* (European red fox) was the only non-native pest species recorded.
- Bushfire management included the preparation of a Burn Plan for the offsets site, planned by specialist bushfire management consultants, Fireland.



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Legend

-  Offset Site
-  Offset Area

Figure 1
Offset Site Context



File ref. 10233 E Figure 3 Offset Site Context A
Date 6/04/2022
Project Upper Ormeau Road, Ormeau



0 1 2 3 4 km
Scale (A4): 1:100,000 [GDA 1994 MGA Z56]



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2RP15912

Legend

-  Offset Site
-  Offset Area
-  Qld DCDB

Figure 2
Offset Site Aerial

File ref. 10233 E Figure 4 Offset Site Aerial A
Date 4/03/2022
Project Upper Ormeau Road, Ormeau



Scale (A4): 1:7,000 [GDA 1994 MGA Z56]



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2. Current Status of the Project

2.1. Offset Area Legally Secured

As required by Condition 5 of the EPBC Act approval, the offset area, which is located over parts of Lot 2 on RP15912 Cliff Barrons Road, Kingsholme, was legally secured via a Voluntary Declaration under the VMA by the Proponent on 22 February 2019. The Chief Executive of the then Queensland Department of Natural Resources, Mines and Energy (now Department of Resources, DOR) declared the offset area in a Declared Area Map (DAM 2018/007110) as an area of high nature conservation value in accordance with section 19F(1) of the VMA. The offset area is shown as Category A on a Property Map of Assessable Vegetation (PMAV) (PMAV 2018/007111) and is subject to management provisions of the Offset Management Plan EPBC 2016/7797, prepared by Saunders Havill Group, December 2018. Evidence of compliance with Condition 5 was provided to DCCEEW and was addressed in the Year 1 ACR.

2.2. Vegetation Clearing

Vegetation clearing progressed within the impact area during Year 2. A total of 1.09 ha of KCH was cleared during Year 2 creating a total combined impact of 5.567 ha of KCH. Refer to **Plan 1** for the extent of clearing.

2.3. Key Consultants and Roles

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

Table 2: Key Consultants and Roles

Role	Appointed Contractor
Proponent / Project Coordinator	Boral – Kelli Adair
Environmental Coordinator	Boral – Matthew Allan
Site Supervisor / Quarry Manager	Boral – Bruce Barry
Environmental Consultant	Saunders Havill Group
Bush Regeneration Contractor	Bushcare Services
Bushfire Management Contractor	Fireland
Pest Management Contractor	Biodiversity Australia

2.4. Offset Area Monitoring

Monitoring activities were completed across the offset area in accordance with the management actions outlined in the OMP, offset management zones shown on **Plan 2** and associated management plans. SHG completed on-ground surveys on the 6-9th and 20-22nd June 2022.

2.4.1 Habitat quality surveys – SHG

SHG ecologists completed monitoring across the offset area including habitat quality assessment surveys at established assessment locations utilising the MHQA methodology. Refer to **Plan 3** for the location of MHQA transects and survey area completed by SHG during Year 2.

2.4.2 Camera trapping and observed fauna – SHG

SHG completed general meander surveys and motion sensor camera trapping during Year 2 surveys to survey for koala presence and other fauna including non-native species such as vertebrate pests.

Refer to **Plan 3** for the location of camera trap placed during Year 2. The motion sensor camera traps were deployed on 8 June 2022 and collected on 22 June 2022, active for a period of 14 nights. A total of 18 fauna species were recorded as a result of on-ground field surveys and camera trapping (refer Table 3 and **Appendix B** for camera trap images).

Notably, a koala was recorded via direct observation by SHG ecologists within the offset area and via camera trap. Refer to **Plan 3** for location and **Photo plate 1** for evidence of direct observation and **Appendix B** for camera trap image.



Photo plate 1: Koala recorded in *Corymbia citriodora* (spotted gum) within offset area June 2022

Camera traps also recorded unauthorised access of the offset area in the form of recreational motorbikes (refer **Appendix B**).

Table 3: Observed fauna and camera trapping results – SHG surveys June 2022

Scientific Name	Common Name	Native/Introduced	Survey Method*
Birds			
<i>Alectura lathami</i>	Australian brush turkey	Native	CT
<i>Neochmia temporalis</i>	Red-browed finch	Native	CT
<i>Zosterpos lateralis</i>	Silvereye	Native	CT
<i>Leucosarcia melanoleuca</i>	Wonga pigeon	Native	CT
<i>Colluricincla harmonica</i>	Grey shrike thrush	Native	CT

Scientific Name	Common Name	Native/Introduced	Survey Method*
<i>Coturnix ypsilophora</i>	Brown quail	Native	S / CT
<i>Eopsaltria australis</i>	Eastern yellow robin	Native	CT
Mammals			
<i>Macropus giganteus</i>	Eastern grey kangaroo	Native	S
<i>Macropus parryi</i>	Whiptail wallaby	Native	CT
<i>Macropus rufogriseus</i>	Red-necked wallaby	Native	S / CT
<i>Perameles nasuta</i>	Long-nosed bandicoot	Native	CT
<i>Isodon macrourus</i>	Northern brown bandicoot	Native	CT
<i>Phascolarctos cenereus</i>	Koala	Native	S / CT
<i>Rattus fuscipes</i>	Bush rat	Native	CT
<i>Rattus rattus</i>	Black rat	Introduced	CT
Tachyglossus aculeatus	Short-beaked echidna	Native	CT
<i>Trichosurus cunninghami</i>	Mountain brushtail possum	Native	CT
<i>Vulpes vulpes</i>	European red fox	Introduced	CT

*CT = camera trapping, S = direct sighting

2.4.3 Weed mapping – SHG

SHG spatially recorded areas within the offset area containing WONS, specifically targeting *Lantana camara* (Lantana). Refer to **Plan 4** for weed mapping results. As shown on the plan, WONS are mostly concentrated in the northern portion of the offset area with large patches of high density weed infestations recorded (refer **Photo plate 2**).



Photo plate 2: Dense Lantana camara patches

2.4.4 Non-native vertebrate pest monitoring

Targeted vertebrate pest monitoring was conducted at permanent monitoring locations across the offset site as part of the annual monitoring (see section 2.4.2) with no evidence of feral or domestic dogs detected across the site. Two non-native species, being the European Fox and the Black Rat were detected onsite during monitoring.

Targeted non-native vertebrate pest monitoring was completed by Biodiversity Australia during Year 2 as part of the requirements for vertebrate pest species management under the Vertebrate Pest species Management Plan. Targeted monitoring was completed over a period of 11 days, starting on 24 February 2023 and ending on 7 March 2023. Refer to **Appendix C** for monitoring report.

During the monitoring period, *Vulpes vulpes* (European red fox) was the only species of non-native vertebrate pest was recorded and was detected five times. In addition, the native *Macropus rufogriseus* (red-necked wallaby) was detected several times.

No evidence of *Canis lupus familiaris* (wild dog) was detected.

2.5. Offset Area Management

Management activities within the offset area included treatment of WONS and maintenance of bushfire access tracks.

2.5.1 WONS treatment

Treatment of WONS mainly targeting *Lantana camara* was completed within the southern portion of the offset area by Bushcare Services between July and November 2022. Treatment methods included chemical treatment (cut and paint) and manual removal. Manual removal was the preferred method of removal due to weather conditions. Weed treatment areas are shown on **Plan 5**.

Daily record sheets completed by the weed management contractor are provided at **Appendix D**.

2.5.2 Bushfire Management

A Burn Plan was developed for the site by Fireland in accordance with the requirements under the Bushfire Management Plan for the site, under the OMP Management Action 6. The BMP details management measures that will be implemented across the site to reduce risk of bushfire, with an annual Burn Plan forming a component of these management measures.

The Burn Plan incorporates a burn map, complexity ratings, pre-burn works order, a risk assessment and contingency maps. On-ground fire management of the offset has not commenced at present due to the high level of rainfall and the process of obtaining approvals to allow repair and reinstatement of the only access road, limiting safety and causing issues with risk management for on-ground fire management professionals during a planned burn. These approvals and the issues with obtaining them is detailed under Section 2.5.3 and within Section 4. On-ground fire management is planned for commencement from June with the approvals having been received late April 2023.

See **Appendix E** for current Burn Plan and bushfire management reporting.

2.5.3 Access Track approvals

The overall site access to perform efficient management and monitoring across the offset site was identified as insufficient while undertaking required monitoring and management during the Year 1 reporting period. In addition, it was identified by Boral and specialist contractors, that safety protocols under risk management thresholds were too high to complete manual and physical tasks whereby certain activities were required to be completed. These included carrying heavy equipment, toxic substances, completing fire management activities or completing dangerous or animal-related trapping methods. For safety management purposes, reliable access and/or proximity to a vehicle and/or tracks for immediate exit of the offset site are required in association with the aforementioned dangerous activities. In order to ensure safety for all staff and contractors onsite, a review of state and local legislation to ensure compliance with environmental aspects was undertaken. The outcome of this review indicated that tracks could be maintained and improved under Accepted Development Clearing Codes under state legislation, but the local council (Gold Coast City Council, GCCC) required two separate works approvals.

Internal issues within council delayed the approval through misaligned departmental expectations in regards to environmental management of the minor watercourse crossing and civil design requirements for the small track and crossing. Several re-designs were requested to satisfy each department before the extended process was able to be resolved.

As such, Boral has navigated this works approval over the past 13 months, involving numerous meetings and correspondence, with the approval having just been achieved in late April 2023 (see **Appendix F**).

Despite attempts to increase efficiency and achieve safety requirements for specialist contractors operating in remote bushland areas, access remained constrained during the Year 2 reporting period. However, since receiving the approval in April 2023, Boral has expedited the works for commencement in May 2023. This is intended to support increased access for management equipment and safe access for contractors and staff from June 2023.

2.5.4 Vertebrate Pest Species Management

A Vertebrate Pest Management Plan was completed by Saunders Havill Group in 2021 to provide specifications and guidance for the on-ground Pest Management Strategies across the site to achieve objectives under the approval. The overarching completion criteria for pest management onsite is that *dogs or evidence of dogs is not detected on the offset area for a period of three years*, as detailed within the approved Offset Management Plan and the Vertebrate Pest Management Plan.

Vertebrate pest monitoring across the site occurred twice within this ACR year, with the neither identifying any feral or domestic dogs or evidence of dogs, being the target species for vertebrate pest management onsite. A single fox was detected during each monitoring event, with additional not-predator vertebrate pest species detected onsite. Objectives under the Vertebrate Pest Management Plan include:

- *Numbers of feral dogs will be reduced through monitoring and management; and*

- *Annual pest monitoring by a suitably qualified pest management contractor, with evidence of pest animals GPS recorded. Where there is evidence of pest animals, targeted trapping and baiting programs will be implemented by an independent, suitably qualified pest management contractor. Where annual monitoring does not identify any feral or pest species monitoring it will reduce to 2 yearly.*

As no evidence of feral dogs was detected during two targeted monitoring events across the offset site, it was determined that trapping be delayed until the results of the upcoming June monitoring event, whereby additional monitoring will occur and targeted trapping where evidence of feral dogs is detected.

As such, it is considered that the pest management activities completed during this ACR year achieve compliance under Condition 6.

2.5.5 Offsets Area Adjacent Landholder Encroachment

During Year 1, Boral proactively surveyed the offset area to ensure all works proposed under the OMP were completed within the offset area boundary. During this process, minor clearing encroachment within the offset area was detected on the western boundary. This included unauthorised clearing for an access track and clearing for a dam completed by the adjacent landholder. Refer to **Figures 3 and 4** for location. This minor, historical clearing was reported fully within the Year 1 ACR.

Under the EPBC Act approval, specifically condition 6, clearing within the offset area is not permitted. However, as the clearing was not undertaken by Boral and relates to historical clearing predating the securing of the offset area, it is considered a minor non-compliance under the EPBC Act approval. As the clearing is against the objectives of the OMP, actions were proposed to prevent further clearing of the area and integrate it back into the management regime of the offset area under the OMP and specific offset area management plans.

No additional clearing or issues arising from this historical incident have occurred during the current reporting period. The management of these areas are occurring in accordance with the requirements detailed within the Koala Habitat Rehabilitation Management Plan and as specified within the chosen management methods for the encroached area.

As such, the minor non-compliance is considered to have been sufficiently addressed and resolved during the Year 2 ACR reporting period.

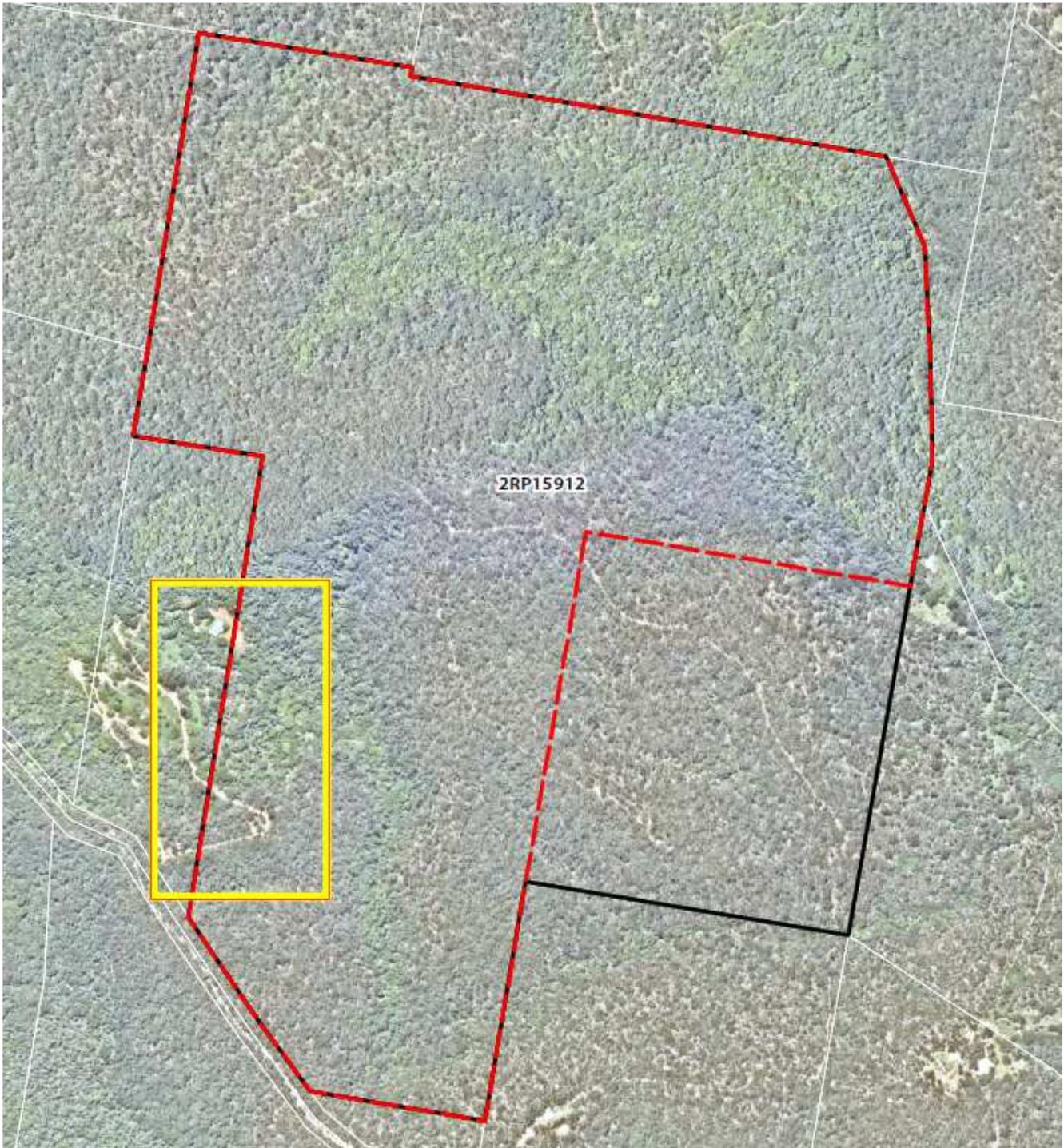
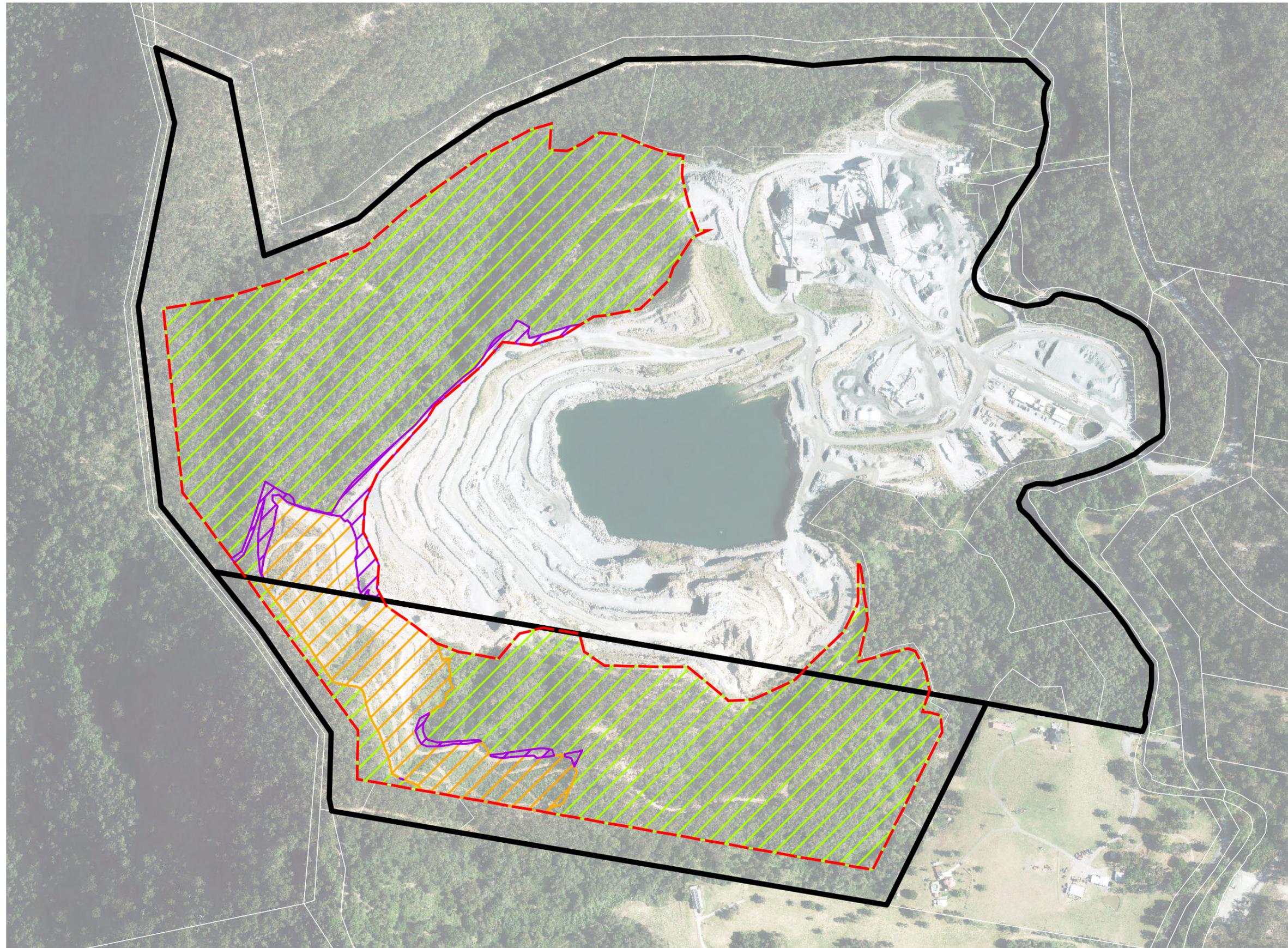


Figure 3: Location of accidental historical encroachment by neighbour, discovered during surveying of offsets site boundary.



Figure 4: Aerial showing the western boundary of the offsets site and the prior encroachment into the site unknowingly by neighbouring landholders.

1. Koala critical habitat clearing – impact area



Notes:
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Legend

- Qld DCDB
- Project Site
- Project Area

Koala Critical Habitat Areas

- Year 1 KCH Clearing [5.16 ha]
- Year 2 KCH Clearing [1.09 ha]
- Remaining KCH [31.37 ha]

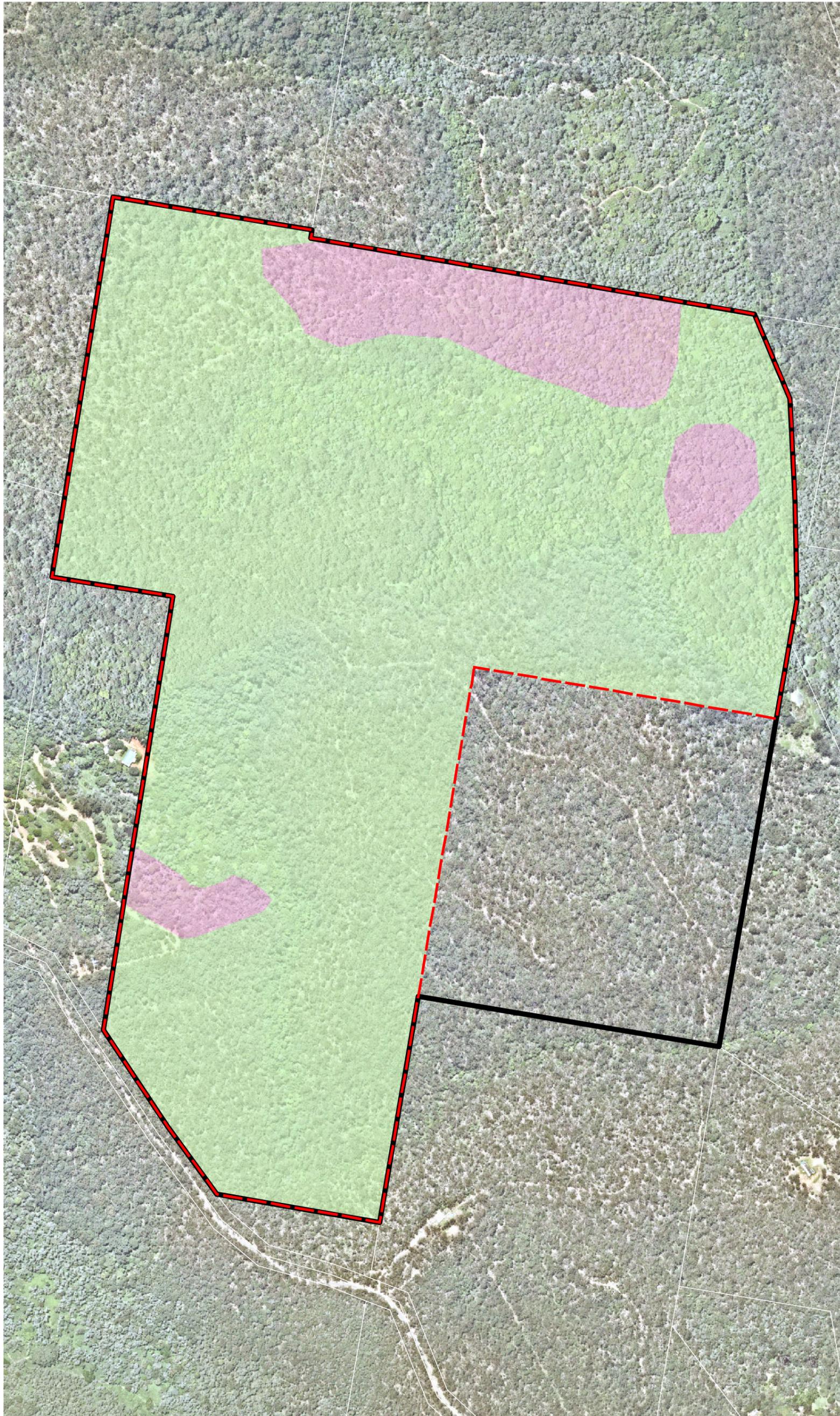
Issue	Date	Description	Drawn	Checked
A	18/04/2023	Preliminary	TF	MM



Upper Ormeau Road, Ormeau

Address / RPD: 43/SP243239
 18/04/2023 | 10233 E01 YR2 KCH Clearing Extent A

2. Offset Area Management Zones



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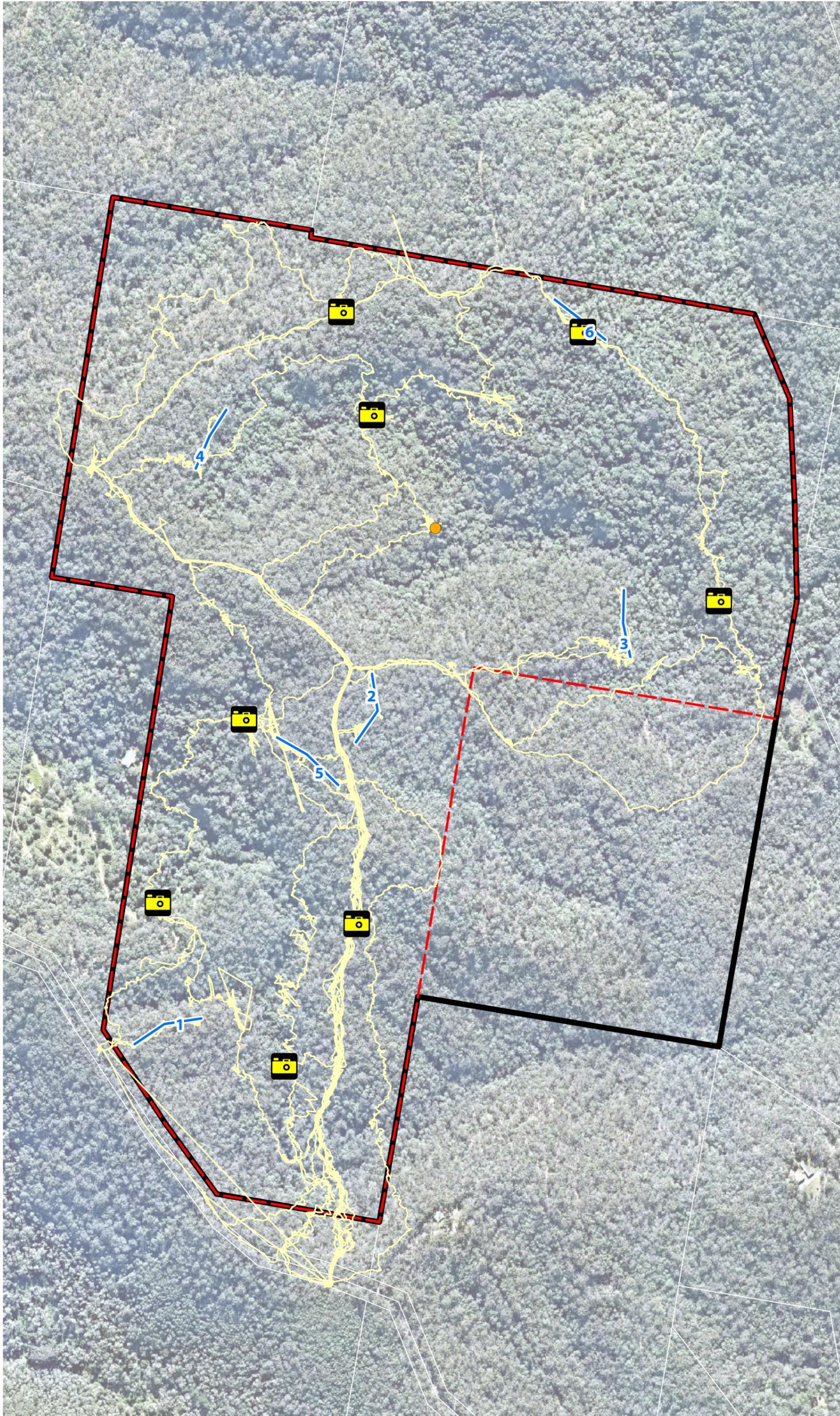
Legend

-  Offset Site
-  Offset Area
-  Qld DCDB
- Management Zones**
-  Habitat Rehabilitation Areas
-  Remnant Vegetation Management Areas

Issue	Date	Description	Drawn	Checked
A	7/03/2022	Preliminary	TF	MM



3. Year 2 Field Survey Effort



Notes:
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Legend

-  Offset Site
-  Offset Area
-  Qld DCDB
-  Camera Trap Locations
-  Koala Sighting
-  Habitat Transects
-  GPS Track Log

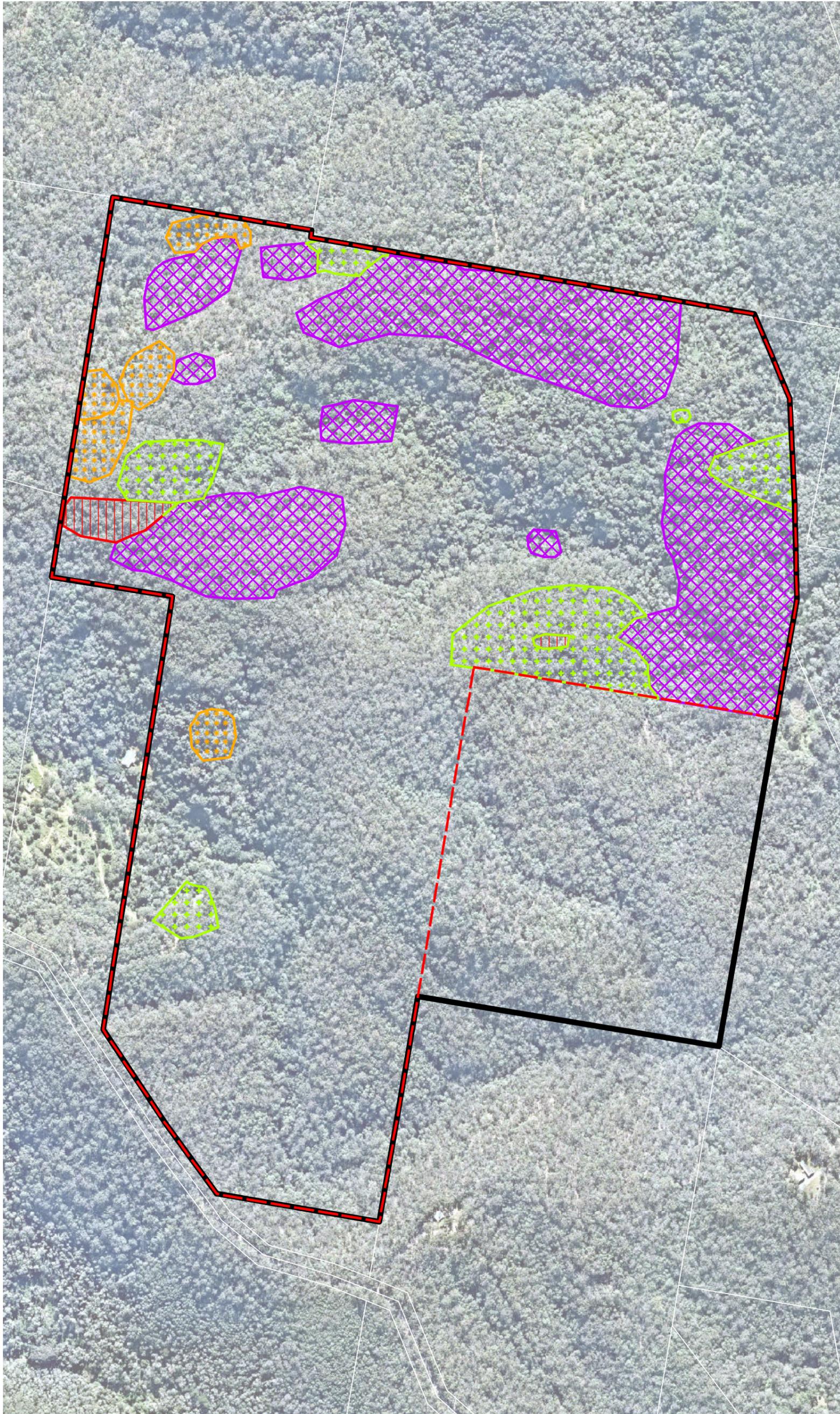
Issue	Date	Description	Drawn	Checked
A	25/07/2022	Preliminary	TF	MM

0 50 100 150 m

Transverse Mercator | GDA 1994 | Zone 56 | 1:5,000 @ A3



4. Year 2 Weed Mapping



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
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 Updated data available at
<http://qldspatial.information.qld.gov.au/catalogue/>
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Legend

-  Offset Site
-  Offset Area
-  Qld DCDB
- Weed Mapping Results Year 2**
-  Scattered Thinning
-  Low to Medium Density
-  Medium Density
-  High Density

Issue	Date	Description	Drawn	Checked
A	25/07/2022	Preliminary	TF	MM



Transverse Mercator | GDA 1994 | Zone 56 | 1:5,000 @ A3

5. Year 2 Weed Treatment Areas



Notes:
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Legend

-  Offset Site
-  Offset Area
-  Qld DCDB
-  Weed Treatment Areas Year 2

Issue	Date	Description	Drawn	Checked
A	17/04/2023	Preliminary	TF	MM

0 50 100 150 m

Transverse Mercator | GDA 1994 | Zone 56 | 1:5,000 @ A3



2.6. Offset Management Plan

A review of the OMP commitments and implementation is provided in **Table 4**.

Table 4: Offset Management Plan implementation

Management Action	Commitment	Evidence / Comments / Status
OMP 1	<p>WONS Management</p> <p>Management measures for the control of WONS, specifically <i>Lantana camara</i> will include;</p> <ul style="list-style-type: none"> • Baseline weed mapping for WONS will be completed in 2019 will be conducted throughout the offset area and site specific treatment techniques developed depending on the location and extent of weed coverage within six months of commencement of the action. • All identified WONS will be treated within 12 months of commencement of the action. • WONS will be monitored and treated annually, including in 2019, until they are not observed on the property. Once WONS are not detected where they have previously been detected, every 2 years: <ul style="list-style-type: none"> ○ Comprehensive monitoring for WONS will be conducted. ○ WONS that are reported or detected by comprehensive monitoring will be treated. • A suitably qualified bush regeneration contractor will be engaged to undertake the necessary weed control. • Control of infestations will utilise techniques that avoid disturbance to surrounding area. 	<p>The OMP specified baseline weed mapping should be completed across the site in 2019, however, this did not occur. As weed status and coverage has the ability to change quickly, dependent on weather and rainfall, conducting baseline weed mapping across the site prior to the commencement of the action (triggering the additional actions under the OMP) may have resulted in incorrect representation to inform management actions. Despite this, this is considered a minor non-compliance.</p> <p>A Weed Management Plan (WMP) was developed by SHG in 2021 to fulfil the requirements of the OMP. The WMP details baseline surveys of weed cover and weed species detected within the offset area. Specific management actions and timeframes have been developed for the control of weeds on-site as well as regular and annual monitoring techniques.</p> <p>SHG Ecologists mapped the extent of WONS across the offset area during the 2022/2023 reporting period (June 2022). WONS identified and mapped were predominantly <i>Lantana camara</i> (Lantana) (refer Plan 4).</p> <p>Bushcare Services were engaged to complete ongoing weed management across the offset site. Despite the contractor providing continual management services across the offset area, the extent of weed treatment work was significantly limited by the damage to access tracks. A combination of severe track erosion and lack of vehicle access tracks limited access across the site. As a result, weed treatment was limited to more accessible portions of the offset area located within the central and southern portions.</p> <p>Track repair and rebuild design have been undergoing the approval process under the Gold Coast City Planning Scheme for an operational works application. This approval has very recently been obtained (April 2023) and thus Boral will begin track works in May 2023 to increase access and safety across the site.</p> <p>Bushcare Services commenced treating WONS in the southern portion the site and moved northwards (refer to Plan 5) in the lack of suitable access during the</p>

Management Action	Commitment	Evidence / Comments / Status
<p>OMP 2</p>	<p>Rehabilitation and Regeneration Management Plan</p> <p>Management measures for rehabilitation and regeneration include:</p> <ul style="list-style-type: none"> • Baseline mapping to identify rehabilitation and regeneration areas and development of a rehabilitation plan specifying techniques and species to be utilised will be completed within 12 months of commencement of the action. • Rehabilitation areas are to consist of one canopy tree per 10m², three shrubs per 10m² and one groundcover per 2m². Where natural regeneration is the preferred approach, infill planting will be implemented where regeneration has been unsuccessful after three years. • All rehabilitation activities are to be carried out by a suitably qualified bush regeneration contractor. • The plants reinstated in any particular location must be consistent with the mapped regional ecosystem or pre-clear regional ecosystem over that area. • All rehabilitation is to commence within three years of commencement of the action. Regeneration areas that require infill planting will be identified and regeneration actions outlined in the third annual compliance report. 	<p>Year 2 reporting period but will be provided better access following the recent approval.</p> <p>It is noted that as all WONS were not treated across the offset site this is considered a minor non-compliance. Once access tracks have been re-instated, Bushcare Services will be able to complete the weed treatment efficiently.</p> <p>A minor non-compliance was identified in the Year 1 ACR where baseline weed mapping and treatment did not commence in 2019 as specified within the OMP. As the action did not commence until 2021, this baseline weed mapping and treatment occurred following this and will continue until WONS are not identified on the property, as per the OMP.</p> <p>A Koala Habitat Management Plan (KHMP) was completed by SHG to guide rehabilitation efforts across the offset area. This was addressed in the Year 1 ACR. Baseline mapping across the site identified areas suitable for different restoration management techniques (refer Plan 2 of KHMP).</p> <p>Treatment of WONS is currently being carried out across the offset area which are required lead in works to the commencement of regeneration and infill planting.</p> <p>Regeneration and infill planting is proposed to commence and be completed by the end of Year 3.</p>
<p>OMP 3</p>	<p>Legally securing the offset area</p> <p>A Voluntary Declaration will be placed over the offset area to legally secure the conservation use on the land prior to the action commencing. Boral will continue to manage the offset area for the life of the approval.</p>	<p>The Proponent legally secured the offset via a Voluntary Declaration under the <i>Vegetation Management Act 1999</i> on the 22 February 2019. In accordance with Condition 5, the offset was legally secured prior to the official commencement of the action on the 3 March 2021. Evidence was provided in the Year 1 ACR.</p>
<p>OMP 4</p>	<p>Pest Management Plan</p> <p>Management measures for the control of feral or unwanted domestic dogs across the offset site include:</p>	<p>Baseline monitoring of pest species across the offset site was completed by SHG in 2021 which identified <i>Vulpes vulpes</i> (European red fox) as utilising the site. While camera trapping was not successful in detecting <i>Canis lupus familiaris</i> (wild dogs), dog prints were observed across the offset area during baseline surveys.</p>

Management Action	Commitment	Evidence / Comments / Status
	<ul style="list-style-type: none"> • Baseline pest monitoring including motion activated cameras and scat analysis to identify evidence of feral or unwanted dogs (and other pest species), and development of a property wide feral animal management program specifying techniques (trapping, baiting, shooting) to be utilised will be completed within 12 months of commencement of the action. • Annual pest monitoring by a suitably qualified pest management contractor, with evidence of pest animals GPS recorded. Where there is evidence of pest animals, targeted trapping and baiting programs will be implemented by an independent suitably qualified pest management contractor. Where annual monitoring does not identify any feral or pest species monitoring will reduce to 2 yearly. • Where practical and appropriate, participate cooperatively in pest management planning and implementation with local land managers (government departments, local governments and utility providers) to ensure effective pest management in the locality of the offset area. • Install appropriate signage informing the area is under feral control. 	<p>The results of the baseline monitoring are detailed in the Vertebrate Pest Management Plan (VPMP) produced by SHG in 2021. The VPMP outlines specific pest management measures and methods to be undertaken throughout the life of the offset.</p> <p>Site access during Year 1 and Year 2 was highly restricted due to the main access track being severely eroded, with the above-average rainfall in the previous reporting period contributing to the deterioration of access tracks. This restricted access removed any ability for vehicular access onto the site for management purposes, placing limitations on work which could be completed, while prioritising compliance with animal ethics requirements for pest management.</p> <p>This track deterioration, in conjunction with the need to obtain approvals to clear vegetation and allow for detailed engineering design and construction of an all-weather access track, under the GCCC and State legislation, placed restrictions on site access and limited the ability to achieve management actions as planned.</p> <p>Clearing of management tracks throughout the offset site will allow for increased access, affording the efficient and appropriate use of pest management techniques across the offset site.</p> <p>For the reasons mentioned above, pest management activities have not commenced within the offset area. However, annual monitoring was completed in Year 2 by Biodiversity Australia which identified the European red fox as the only non-native vertebrate pest within the offset area (refer Appendix C for monitoring report).</p> <p>Signage will be installed as a component of the commencement of onsite trapping and pest species management.</p>
<p>OMP 5</p>	<p>Koala Habitat Quality Management Plan</p> <p>The use of the habitat quality assessment methodology prepared by the Queensland Herbarium (DEHP 2017) provides a repeatable and consistent method for determining habitat quality specific to koalas. The method also utilises benchmark scores to ensure all sites measured are calibrated against a known standard. This calibration provides additional confidence and assurance in the accuracy of the method to score habitat quality.</p>	<p>A Koala Habitat Management Plan (KHMP) (Rehabilitation Plan) was developed for the offset area which details strategies that will be implemented in order to achieve the Koala habitat rehabilitation aims set out in the OMP.</p> <p>The management zones within the offset area include 'Remnant Vegetation' and 'Habitat Rehabilitation.' In accordance with the OMP, management of WONS, namely Lantana, occurred within the central and southern portion of the offset area, assisting with natural regeneration of native vegetation. Management of WONS was not able to be completed throughout the entire offset area due to the lack of suitable access tracks which created safety concerns for the weed</p>

Management Action	Commitment	Evidence / Comments / Status
	<p>The habitat quality monitoring is to be undertaken at six (6) permanent transect locations established during baseline habitat quality score assessments within the koala offset area.</p> <p>The total area of the offset site is 77 ha consisting of non-remnant vegetation and three REs, which are sized as follows:</p> <ul style="list-style-type: none"> • 32.6 ha of RE12.11.3 • 37.5 ha of RE12.11.5 • 1.6 ha of RE12.11.10 • 5.3 ha of non-remnant vegetation <p>Habitat quality monitoring will be undertaken annually for the first three (3) years and then once every five (5) years to determine if the target quality score has been maintained for the offset area over the EPBC Act period of approval (maintain a habitat quality score of eight (8)). The habitat quality monitoring is to be reported in the ACR every five (5) years or the subsequent year that the monitoring is completed.</p> <p>Koala usage monitoring will be carried out as part of the habitat monitoring. Surveys will be carried out using the Spot Assessment Technique (SAT) at all six (6) permanent transect locations.</p>	<p>management personnel as well as not being able to access the entire site with the necessary equipment.</p> <p>Annual habitat quality monitoring of Koala habitat utilising the MHQA methodology was conducted at six permanent transect locations across the offset area in June 2022. MHQA scores for the offset area are reported within this ACR. This includes five transects within the Remnant vegetation area and one transect within the non-remnant vegetation area (refer Plan 3).</p> <p>Habitat quality scores remained steady between Year 1 and Year 2, with a small increase in score of AU2 (RE 12.11.3). Habitat quality of AU1 (RE 12.3.11), AU3 (RE 12.11.10) and AU4 (non-remnant 12.11.10) remained relatively constant with very minor variation and the rounded scores remaining the same.</p> <p>Koala scats were recorded during SAT surveys at each transect location, demonstrating Koalas continue to use the offset site.</p>
<p>OMP 6</p>	<p>Bushfire Management Plan</p> <p>The Bushfire Management Plan will be prepared by a suitably qualified professional and will detail: 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 and biodiversity outcomes sought for the offset area.</p> <p>Management measures will be outlined in the BMP for the control of bush fire across the offset area but will include:</p> <ul style="list-style-type: none"> • Installation of firebreaks and fire trails. • Annual inspection and maintenance of firebreaks and access tracks required to achieve compliance with Offset Area Bushfire Management Plan. • Prescribed burning undertaken in consultation with, and under the guidance of the Queensland Rural Fire Brigade and in compliance with the Fire and Emergency Services Act 1990. • Use of domestic livestock or other methods to reduce fuel loads in the event that a fire risk professional (e.g. representative of Queensland Rural 	<p>A Bushfire Management Plan (BMP) was developed for the site by Land and Environment Consultants (LEC) in accordance with OMP Management Action 6 in 2021. This BMP details management measures that will be implemented across the site to reduce risk of bushfire.</p> <p>A 2023 Burn Plan was developed for the site by Fireland in accordance with the requirements under the Bushfire Management Plan for the site, under the OMP Management Action 6. The BMP details management measures that will be implemented across the site to reduce risk of bushfire, with an annual Burn Plan forming a component of these management measures.</p> <p>The Burn Plan incorporates a burn map, complexity ratings, pre-burn works order, a risk assessment and contingency maps. On-ground fire management of the offset has not commenced at present due to the high level of rainfall and the process of obtaining approvals to allow repair and reinstatement of the only access road, limiting safety and causing issues with risk management for on-ground fire management professionals during a planned burn. These approvals and the issues with obtaining them is detailed under Section 2.5.3 and within Section 4.</p>

Management Action	Commitment	Evidence / Comments / Status
	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. Level of risk (and any need to repeat this grazing cycle) is to be reassessed by the aforementioned professionals following the grazing event.	The approval has been achieved as of April 2023 and will facilitate access and safety requirements for upcoming fire management onsite.

Table 5: Modified Habitat Quality Assessment Scores – Year 2

Condition characteristics	Max. score	Score (RE12.11.3)	Score (RE12.11.5)	Score (RE12.11.10)	Score remnant) (non-
Site Condition (30%)					
Recruitment of woody perennial species	5	5	5	5	3
Native plant species richness - trees	5	5	5	2.5	2.5
Native plant species richness - shrubs	5	2.5	2.5	2.5	0
Native plant species richness - grasses	5	2.5	2.5	5	5
Native plant species richness - forbs	5	2.5	2.5	2.5	0
Tree canopy height	5	5	5	3.33	4
Tree canopy cover	5	4	4	3.33	5
Shrub canopy cover	5	3	3	3	0
Native perennial grass cover	5	5	5	5	5
Organic litter	5	3	5	3	5
Large trees	15	5	15	5	5
Coarse woody debris	5	5	2	2	2
Weed cover	10	3	5	3	3
Quality and availability of food and foraging habitat	10	10	10	10	10
Quality and availability of shelter	10	10	10	10	10
Site condition score	100	70.5	81.5	65.16	59.5

Condition characteristics	Max. score	Score (RE12.11.3)	Score (RE12.11.5)	Score (RE12.11.10)	Score remnant) (non-remnant)
Site condition score (out of 3)	3	2.12	2.45	1.95	1.79
Site Context (30 %)					
Size of the patch	10	7	7	7	7
Connectedness	5	4	4	4	4
Context	5	5	5	5	5
Ecological corridors	6	6	6	6	6
Role of site location to species overall population	5	4	4	4	4
Threats to the species	15	15	15	15	15
Species mobility capacity	10	7	7	7	7
Site context score	56	48	48	48	48
Site context score (out of 3)	3	2.57	2.57	2.57	2.57
Species Stocking Rate (40 %)					
Species stocking rate score	70	45	40	40	45
Species stocking rate score (out of 4)	4	2.57	2.29	2.29	2.57
Unit Scores Total	(rounded)	7.26	7.30	6.81	6.93

Table 6: Comparison of MHQA Scores between baseline, Year 1 and Year 2

Biocondition Score	Baseline	Year 1 (2021)	Year 2 (2022)	Comment
RE 12.11.3				
Site Condition	2.13	2.12	2.12	Baseline surveys and Year 1 transects were completed in different locations, resulting in variations to the MHQA scores. However, Year 1 and Year 2 locations were consistent and site condition has remained steady across Years 1 and 2.
Site Context	2.57	2.57	2.57	
Species Stocking Rate	2.57	2.57	2.57	

RE 12.11.5				
Site Condition	2.26	2.33	2.45	Baseline surveys and Year 1 transects were completed in different locations, resulting in variations to the MHQA scores. However, Year 1 and Year 2 locations were consistent and site condition has remained steady (with a slight increase) across Years 1 and 2.
Site Context	2.57	2.57	2.57	
Species Stocking Rate	2.57	2.57	2.29	
RE 12.11.10				
Site Condition	2.15	1.97	1.95	Baseline surveys and Year 1 transects were completed in different locations, resulting in variations to the MHQA scores. However, Year 1 and Year 2 locations were consistent and site condition has remained steady across Years 1 and 2.
Site Context	2.57	2.57	2.57	
Species Stocking Rate	2.57	2.57	2.29	
Non-remnant				
Site Condition	-	1.82	1.79	No surveys were completed during Baseline surveys, thus results from Year one surveys are used as the baseline comparison. This transect will monitor the rehabilitation efforts within the non-remnant areas. Year 1 and Year 2 locations were consistent and site condition has remained steady.
Site Context	-	2.57	2.57	
Species Stocking Rate	-	2.29	2.57	

3. EPBC Conditions and Compliance

Table 7 details the Conditions attached to the Ormeau Quarry Approval (EPBC 2016/7797). Sections 2-5 above provide details on process, steps and methodologies used to achieve the Conditions under the approval.

Table 7: Compliance Audit of EPBC 2016/7797 Conditions for Ormeau Quarry

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
1	The person taking the action must not undertake the action outside the Project Site as shown in Attachment A.	Compliant	The action has not occurred outside of the Project Site as shown in Attachment A of the EPBC Approval.
2	The person taking the action must not clear more than 38 hectares of koala habitat in the Project Site as shown in Attachment A.	Compliant	Plan 1 shows the clearing of Koala critical habitat that has occurred within the impact area. A total of 6.250 ha has been cleared in total which includes 1.09 ha cleared during Year 2.
3	The person taking the action must implement the Offset Strategy.	Compliant	The Project is compliant with implementing the Offset Management Plan, refer to Table 6 .
4	In the case that the Offset Strategy cannot be implemented on Lot 2 RP15912 and in accordance with the EPBC Act Environmental Offsets Policy (2012), an alternate Offset Strategy must be submitted to the Minister for approval prior to the commencement of the action.	Not applicable	Lot 2 on RP15912 was legally secured under Voluntary Declaration on 22 February 2019.
5	The person taking the action must not commence the action until the offset area is legally secured.	Compliant	Lot 2 on RP15912 was legally secured under Voluntary Declaration on 22 February 2019.
6	The person taking the action must prepare and submit an Offset Management Plan for the Minister's approval to offset the loss of 38 hectares of koala habitat. The person taking the action must not commence the action unless the Minister has approved the Offset Management Plan in writing. The approved Offset Management Plan must be implemented by the person taking the action. The Offset Management Plan must be prepared in accordance with the Department's	Compliant	The Offset Management Plan was completed by Saunders Havill Group in December 2018 and approved by DCCEEW.

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
	Environmental Management Plan Guidelines, and the EPBC Act Environmental Offsets Policy (2012) and include:		
6a	detail of the offset area(s) required to address the loss of 38 hectares of koala habitat consistent with the Offset Strategy or subsequent Offset Strategy described at condition 4;	Compliant - As per Condition 6	
6b	detail of the proposed legal mechanism and timeframes for securing the offset area(s);	Compliant - As per Condition 6	
6c	a map of the offset area(s) in relation to other habitats and biodiversity corridors;	Compliant - As per Condition 6	
6d	information about how the offset area(s) provide connectivity with other koala habitat and biodiversity corridors;	Compliant - As per Condition 6	
6e	a description of the current condition (prior to any management activities) of the offset area(s), including baseline survey data;	Compliant - As per Condition 6	
6f	a description of the management measures (including timing, frequency and longevity) that will be implemented, including discussion of how measures outlined take into account relevant conservation advice;	Compliant - As per Condition 6	
6g	performance and completion criteria for evaluating the management of the offset area(s), and detailed criteria that will trigger corrective actions;	Compliant - As per Condition 6	
6h	a detailed program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;	Compliant - As per Condition 6	
6i	potential risks to the successful implementation of the plan, and a description of the contingency measures that would be implemented to mitigate against these risks, including a bushfire management plan and a pest species management plan.	Compliant - As per Condition 6	
7	The person taking the action must prepare and submit an Environmental Management Plan for the Minister's approval	Compliant	An Environmental Management Plan was completed by Saunders Havill Group in November 2018.

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
	to ensure the protection of EPBC Act listed species on the project site. The Environmental Management Plan must include:		
7a	Details of the mitigation and management measures that will be implemented on the Project Site including, but not limited to:	Compliant Condition 7	– as per
7a. i.	all vehicles within the Project Site be restricted to travel at 40km/hr or less except in an emergency;	Compliant Condition 7	– as per
7a. ii.	signage alerting drivers to the risk of collisions with koalas;	Compliant Condition 7	– as per
7a. iii.	measures to avoid or minimise impacts to the Ormeau Bottle Tree (<i>Brachychiton</i> sp. Ormeau [L.H.Bird AQ435851]) during clearing or operations; and	Compliant Condition 7	– as per
7a. iv.	measures to avoid or minimise impacts to the Grey-Headed Flying Fox (<i>Pteropus poliocephalus</i>) during clearing or operations.	Compliant Condition 7	– as per
General			
8	Within 20 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	Compliant	The action began on the 3 February 2021 and the Department was advised on the 4 February 2021 via e-mail confirmation. Evidence of this was provided in the Year 1 ACR.
9	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	Boral Resources and Saunders Havill Group are responsible for maintaining accurate records of all activities associated with the action. No request from the Department was made.

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
10	Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. 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.	Compliant	The final day of Year 2 was 2 March 2023, the ACR is due to be published to Boral's website by no later than the 3 May 2023 at the below weblink: https://www.boral.com.au/locations/boral-quarries-ormeau-kingsholme
11	Upon the direction of the Minister, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. The independent auditor must be approved by the Minister prior to the commencement of the audit. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.	Not applicable	No request from the Minister was made to complete an independent audit.
12	The person taking the action may choose to revise a Management Plan approved by the Minister under conditions 3, 4, 6 and 7 without submitting it for approval under section 143A of the EPBC Act, if the taking of the action in accordance with the revised plan would not be likely to have a new or increased impact. If the person taking the action makes this choice it must:	Not applicable	No revisions to the management plans were made in the reporting period.
12 i.	Notify the Department in writing that the approved plan has been revised and provide the Department with an electronic copy of the revised plan;	Not applicable	No revisions to the management plans were made in the reporting period.
12 ii.	Implement the revised plan from the date that the plan is submitted to the Department; and	Not applicable	No revisions to the management plans were made in the reporting period.
12 iii.	For the life of this approval, maintain a record of the reasons the person taking the action considers that taking the action in accordance with the revised plan would not be likely to have a new or increased impact.	Not applicable	No revisions to the management plans were made in the reporting period.

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
13	The person taking the action may revoke their choice under condition 12 at any time by notice to the Department. If the person taking the action 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.	Not applicable	The proponent did not revoke their choice under condition 12 within the current reporting period.
14	Condition 12 does not apply if the revisions to the approved plan include changes to environmental offsets provided 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.	Not applicable	No revisions to the management plans were made in the reporting period.
15	If the Minister gives a notice to the person taking the action 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:	Not applicable	No revisions to the management plans were made in the reporting period.
15 i.	Condition 12 does not apply, or ceases to apply, in relation to the revised plan; and	Not applicable	No revisions to the management plans were made in the reporting period.
15 ii.	The person taking the action must implement the plan approved by the Minister.	Not applicable	No revisions to the management plans were made in the reporting period.
	To avoid any doubt, this condition does not affect any operation of conditions 12, 13 and 14 in the period before the day the notice is given. At the time of giving the notice the Minister may also notify that for a specified period of time that condition 12 does not apply for one or more specified plans required under the approval.		
16	Conditions 12, 13, 14 and 15 are not intended to limit the operation of section 143A of the EPBC Act which allows the person taking the action to submit a revised plan to the Minister for approval.	Not applicable	No revisions to the management plans were made in the reporting period.
17	If, at any time after 5 years from the date of this approval, the person taking the action has not substantially commenced	Not applicable	The action commenced on 3 February 2021.

Condition Number	Condition	Is The Project compliant with this condition?	Evidence
	the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.		
18	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plans referred to in these conditions of approval on its website. Each management plan must be published on the website within one month of being approved by the Minister or submitted under condition 12.	Compliant	All management plans referred to under this approval (the Environmental Management Plan and Offset Management Plan) were published on Boral's website within one month of approval by the Minister.

4. Non-compliances

4.1. Weed Management

The OMP states that all WONS will be treated within 12 months of the commencement of the Action. As detailed in **Section 2.4**, management of WONS was unable to be completed across the entirety of the Offset site in Year 1 and Year 2 attributed to ongoing access issues. However, weed management has been regularly completed across every month within parts of the site that are currently accessible for suitable weed treatment by a weed management contractor.

The approval process under the local legislation, required to allow clearing for conservation management purposes within the offset site, is relatively complex, being actively driven by Boral to attempt to progress the installation of minor tracks to provide for management purposes. Full site access via a well-maintained network of minimal impact tracks is essential for moving necessary equipment through the site to achieve this management objective. The restricted access both prevents optimal weed management by Bushcare Services (the suitably qualified contractors) via preventing access to the offset site with the necessary equipment and poses a safety issue e.g. potential injury in a remote area.

A large area of WONS was treated during Year 2, with efforts concentrated within more accessible portions of the offset area within the central and southern portions however, as weed treatment could not occur across the entire offset area, despite constant work onsite, this is identified as a minor non-compliance under the requirements of the EPBC Act OMP (Condition 6). The inaccessibility of the site during Years 1 and 2 has led to a revision of weed treatment timeframes over the 24-month period.

Track access and improvement was actively undergoing local council approval through the full Year 2 reporting period involving substantial correspondence and council meetings to navigate the local approvals. The process involved two separate approvals through Gold Coast City Council, with multiple council departments providing contrasting requirements for track works design. With this came a lack of understanding of the need for safe access to the offset area to support the management for conservation purposes. As such, approval to construct minor tracks for conservation management purposes took over 13 months from initial contact, through multiple meetings and internal disagreement within council, on acceptable track design. As discussed, safety standards for field work conditions do not allow for individuals to work in unsafe conditions, which exists across the site in the context of manual weed management, without the upkeep of these tracks.

From this, the final approval for tracks within strategic areas on the offset site was approved in April 2023 (see **Appendix F**). Boral has implemented immediate action on track work, with works to commence in May 2023. These tracks will provide significantly greater access for specialist contractors to mobilise required equipment to increase weed treatment efficiency and achieve safety requirements for field workers. .

4.2. Bushfire Management

The inaccessibility of the site resulted in some on-ground Bushfire Management actions, identified within the BMP, not commencing during the Year 2 reporting period. Specifically, a large washout along the main entry

track prevented entry to the site by vehicles from late 2021, with local approvals for track works to repair this, pending under the Gold Coast Planning Scheme until recently approved in late April 2023.

A Bushfire Management Plan has been completed for the offset site. However, the eroded and damaged state of the main access track in conjunction with an overall lack of access tracks inhibited the commencement of active operations for bushfire management across the offset site.

A Burn Plan was developed for the site by Fireland in accordance with the requirements under the Bushfire Management Plan for the site, under the OMP Management Action 6. The BMP details management measures that will be implemented across the site to reduce risk of bushfire, with an annual Burn Plan forming a component of these management measures. The Burn Plan incorporates a burn map, complexity ratings, pre-burn works order, a risk assessment and contingency maps.

Track approval was actively progressing through local council assessment through the full Year 2 reporting period involving substantial correspondence and council meetings to navigate the local approvals. As such, approval to construct minor tracks for conservation management purposes in strategic areas on the offset site was approved in April 2023 (see **Appendix F**), following 13 months of navigating the operational works planning applications. As discussed in previous sections, the application of manual and physical tasks such as fire management in remote, inaccessible areas across the offset site did not achieve required safety and risk management thresholds, thus rendering these activities highly unsafe and potentially life threatening. As such, on ground fire management practices were unable to be completed however, Boral has implemented immediate action on track work, with works to commence in May 2023. These tracks will provide significantly greater access and thus, greater safety, for specialist contractors to mobilise required equipment to support bushfire management and achieve safety requirements for bushfire management process.

This is considered a minor non-compliance under Condition 6.

5. Appendices

Appendix A

EPBC Approval (EPBC 2016/7797)

Appendix B

SHG camera trapping images

Appendix C

Non-native vertebrate pest monitoring report March 2023

Appendix D

Weed management record sheets

Appendix E

Burn Plan/Fire Reporting

Appendix F

Gold Coast City Council approval

Appendix A

EPBC Approval (EPBC 2016/7797)



Approval

Ormeau Quarry Expansion, 12 km north-west of Oxenford, Queensland (EPBC 2016/7797).

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

Proposed action

person to whom the approval is granted	BORAL RESOURCES (QLD) PTY. LIMITED
proponent's ACN	009 671 809
proposed action	To expand the existing Ormeau Quarry Site, approximately 12 kilometres (km) north-west of Oxenford and 43 km from Brisbane, Queensland [See EPBC Act referral 2016/7797].

Approval decision

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

Conditions of approval

This approval is subject to the conditions specified below.

Expiry date of approval

This approval has effect until 8 November 2057

Decision-maker

name and position	James Barker Assistant Secretary Assessments and Governance Branch
--------------------------	--

signature

date of decision

16 / 2 / 2018

Conditions attached to the approval

Conditions
1. The person taking the action must not undertake the action outside the Project Site as shown in <u>Attachment A</u> .
2. The person taking the action must not clear more than 38 hectares of koala habitat in the Project Site as shown in <u>Attachment A</u> .
3. The person taking the action must implement the Offset Strategy .
4. In the case that the Offset Strategy cannot be implemented on Lot 2 RP15912 and in accordance with the EPBC Act Environmental Offsets Policy (2012) , an alternate Offset Strategy must be submitted to the Minister for approval prior to the commencement of the action.
5. The person taking the action must not commence the action until the offset area is legally secured .
6. The person taking the action must prepare and submit an Offset Management Plan for the Minister's approval to offset the loss of 38 hectares of koala habitat . The person taking the action must not commence the action unless the Minister has approved the Offset Management Plan in writing. The approved Offset Management Plan must be implemented by the person taking the action. The Offset Management Plan must be prepared in accordance with the Department's Environmental Management Plan Guidelines , and the EPBC Act Environmental Offsets Policy (2012) and include: <ol style="list-style-type: none">detail of the offset area(s) required to address the loss of 38 hectares of koala habitat consistent with the Offset Strategy or subsequent Offset Strategy described at condition 4;detail of the proposed legal mechanism and timeframes for securing the offset area(s);a map of the offset area(s) in relation to other habitats and biodiversity corridors;information about how the offset area(s) provide connectivity with other koala habitat and biodiversity corridors;a description of the current condition (prior to any management activities) of the offset area(s), including baseline survey data;a description of the management measures (including timing, frequency and longevity) that will be implemented, including discussion of how measures outlined take into account relevant conservation advice;performance and completion criteria for evaluating the management of the offset area(s), and detailed criteria that will trigger corrective actions;a detailed program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;potential risks to the successful implementation of the plan, and a description of the contingency measures that would be implemented to mitigate against these risks, including a bushfire management plan and a pest species management plan.

7. The person taking the action must prepare and submit an Environmental Management Plan for the **Minister's** approval to ensure the protection of EPBC Act listed species on the project site. The Environmental Management Plan must include:
- a. Details of the mitigation and management measures that will be implemented on the **Project Site** including, but not limited to:
 - i. all vehicles within the **Project Site** be restricted to travel at 40km/hr or less except in an **emergency**;
 - ii. signage alerting drivers to the risk of collisions with koalas;
 - iii. measures to avoid or minimise impacts to the Ormeau Bottle Tree (*Brachychiton* sp. *Ormeau* [L.H.Bird AQ435851]) during clearing or operations; and
 - iv. measures to avoid or minimise impacts to the Grey-Headed Flying Fox (*Pteropus poliocephalus*) during clearing or operations.
 - b. Details of the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing.

The person taking the action must not commence the action unless the **Minister** has approved the Environmental Management Plan in writing. The approved Environmental Management Plan must be implemented

General

8. Within 20 days after the **commencement** of the action, the person taking the action must advise the **Department** in writing of the actual date of **commencement**.
9. The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
10. Within three months of every 12 month anniversary of the **commencement** of the action, the person taking the action must publish a report on its website addressing compliance with each of the conditions of this approval, including implementation of any management plans as specified in the conditions. 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.

11. Upon the direction of the **Minister**, the person taking the action must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.

12. The person taking the action may choose to revise a Management Plan approved by the **Minister** under conditions 3, 4, 6 and 7 without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the action in accordance with the revised plan would not be likely to have a **new or increased impact**. If the person taking the action makes this choice it must:

- i. Notify the **Department** in writing that the approved plan has been revised and provide the **Department** with an electronic copy of the revised plan;
- ii. Implement the revised plan from the date that the plan is submitted to the **Department**; and
- iii. For the life of this approval, maintain a record of the reasons the person taking the action considers that taking the action in accordance with the revised plan would not be likely to have a **new or increased impact**.

13. The person taking the action may revoke their choice under condition 12 at any time by notice to the **Department**. If the person taking the action 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

14. Condition 12 does not apply if the revisions to the approved plan include changes to environmental offsets provided 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**.

15. If the **Minister** gives a notice to the person taking the action 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:

- i. Condition 12 does not apply, or ceases to apply, in relation to the revised plan; and
- ii. The person taking the action must implement the plan approved by the **Minister**.

To avoid any doubt, this condition does not affect any operation of conditions 12, 13 and 14 in the period before the day the notice is given.

At the time of giving the notice the **Minister** may also notify that for a specified period of time that condition 12 does not apply for one or more specified plans required under the approval.

16. Conditions 12, 13, 14 and 15 are not intended to limit the operation of section 143A of the **EPBC Act** which allows the person taking the action to submit a revised plan to the **Minister** for approval.

17. If, at any time after 5 years from the date of this approval, the person taking the action has not substantially **commenced** the action, then the person taking the action must not substantially **commence** the action without the written agreement of the **Minister**.

18. Unless otherwise agreed to in writing by the **Minister**, the person taking the action must publish all management plans referred to in these conditions of approval on its website. Each management plan must be published on the website within one month of being approved by the **Minister** or submitted under condition 12.

Definitions:

Commence(d)/commencement: The clearing of vegetation or construction of any infrastructure, excluding fences and signage, associated with the proposed action.

Department: The Australian Government Department or any other agency administering the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) from time to time.

Emergency: a serious, unexpected, or dangerous situation requiring immediate action.

Environmental Management Plan Guidelines (2014): the *Environmental Management Plan Guidelines, Commonwealth of Australia 2014*, or subsequent revision.

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

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

EPBC Act Environmental Offsets Policy (2012): the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (October 2012), or subsequent revision, including the Offset Assessment Guide.

Koala habitat: forest or woodland with two or more **known koala food tree species**, or one food tree species that alone accounts for >50% of the vegetation in the relevant strata, as described in *EPBC Act referral guidelines for the vulnerable koala (combined populations of Qld, NSW and the ACT)*. Commonwealth of Australia, 2014.

Known koala food tree species: species of trees whose leaves are consumed by koalas as agreed by the **Minister** or defined in the following webpage:

www.ehp.qld.gov.au/wildlife/koalas/koala-ecology.html.

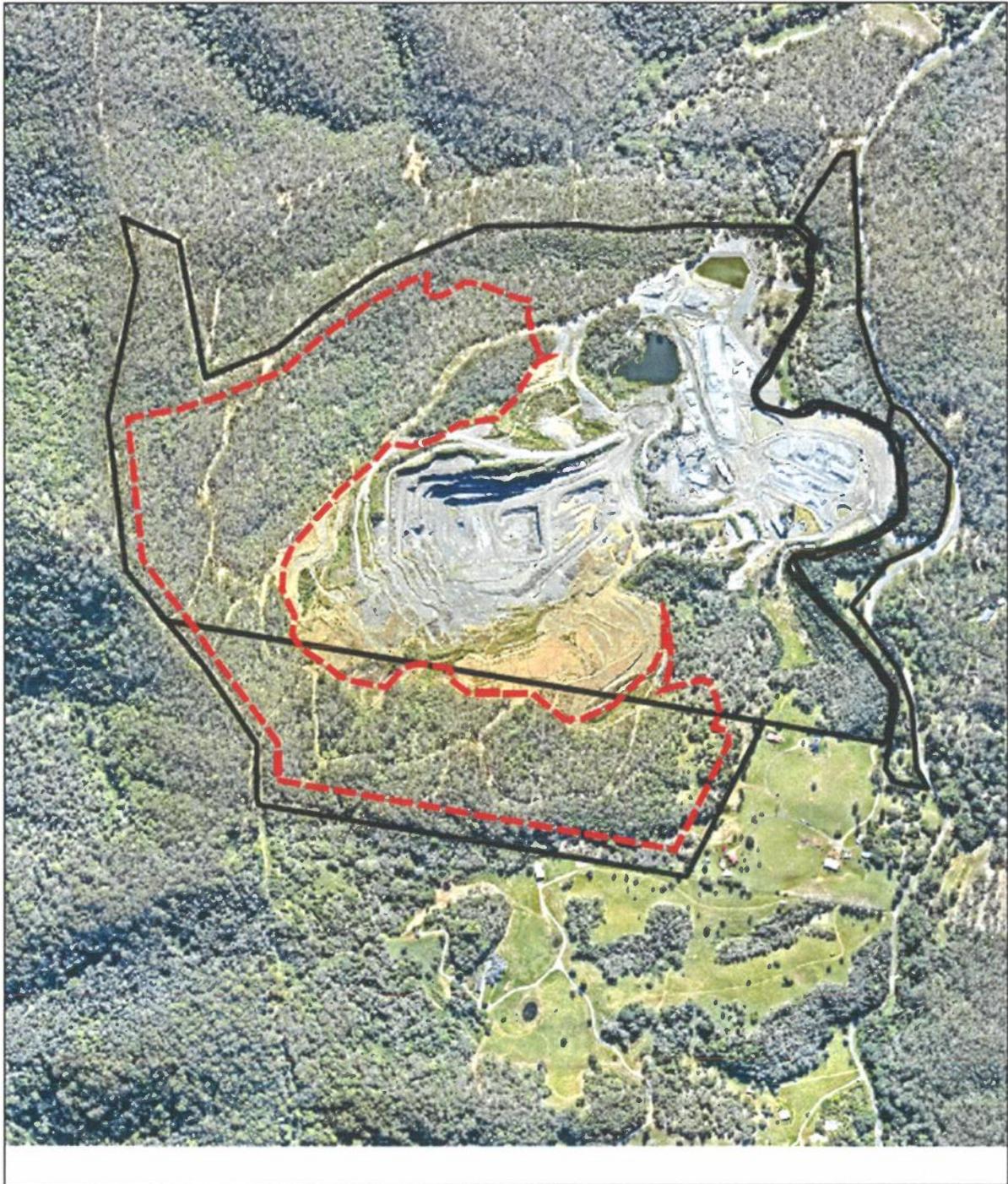
Legally secured: to secure a covenant or similar legal agreement in relation to a site, to provide enduring protection for the site against development incompatible with conservation.

Minister: the Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and includes a delegate of that Minister.

New or increased impact: A new or increased impact on any matter protected by the controlling provisions for the action, when compared to the plan that has been approved by the **Minister**.

Offset Strategy: *Environmental Offset Strategy*, dated 31 January 2018, prepared by Saunders Havill Group.

Project Site: The site at 580—582 Upper Ormeau Road, Kingsholme, Queensland (Lot 1 on RP164904 and Lot 43 on SP243239) designated as 'Project Site' in Appendix A.



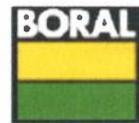
Legend

-  Site DCDB
-  Project Site

Figure 2 Site Aerial

File ref. 8354 E Figure 2 Aerial B
 Date 21/07/2017
 Project EPBC

0 50 100 200 300 400 m
 Scale (A4): 1:9,000 (GDA 1994 MGA 256)



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Australian Government
**Department of Agriculture,
Water and the Environment**

Ref: 17/008014

Email: epbcmonitoring@awe.gov.au

Megan McKinney
Principal Ecologist
Saunders Havill Group
9 Thompson St
BOWEN HILLS QLD 4006

Dear Ms McKinney,

**Commencement of Action – Ormeau Quarry Expansion, 12 km north-west of Oxenford,
QLD (EPBC 2016/7797)**

I refer to your email of 4 February 2021 on behalf of Boral Resources (QLD) Pty Ltd notifying the Department of Agriculture, Water and the Environment (the Department) of commencement of the Ormeau Quarry Expansion in accordance with condition 8 the *Environment Protection and Biodiversity Conservation Act 1999* (the Act) approval EPBC 2016/7797.

I note that the action commenced on 3 February 2021.

Condition 10 – Annual Compliance Reporting

Condition 10 of the approval states that the approval holder must prepare an Annual Compliance Report for each 12-month period following the date of commencement of the action. The approval holder must continue to publish each report and notify the Department of publication until the expiry of this approval on 8 November 2057. The reports must be published within 3 months of every 12-month anniversary of commencement. Documentary evidence providing the date of publication must be provided to the Department at the same time the report is published.

Please notify the Department of publication of the reports by email, including a link to where the report is publicly available to epbcmonitoring@awe.gov.au. Please note the first Annual Compliance Report is due by 3 May 2022.

When preparing the report please refer to the Department's Annual Compliance Report Guidelines available on the Department's website at <http://www.environment.gov.au/epbc/publications/annual-compliance-report-guidelines>

Please note that the conditions of approval require the approval holder to maintain accurate records of all activities associated with, or relevant to, the approval conditions so that they can be made available to the Department on request. These documents may be subject to audit and be used to verify compliance. Summaries of audits may be published by the Department.

More information about the Department's Monitoring and Audit program is available on the Department's website at <http://www.environment.gov.au/epbc/compliance-and-enforcement/auditing>.

Section 142 of the Act requires an approval holder to comply with conditions attached to an approval. Penalties may apply to approval holders who contravene conditions.

If you would like to discuss this matter further, please contact Michaela Ballard at epbcmonitoring@awe.gov.au

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Th' or 'Thomas Long', written in a cursive style.

Thomas Long
A/g Assistant Director
Environmental Audit Section

09 February 2021

Voluntary Declaration Notice

ss19E – 19L of the Vegetation Management Act 1999

1. Details of request

- 1.1. **Proponent's name:** Boral Resources (QLD) Pty Limited
- 1.2. **Date request received:** 11 December 2018
- 1.3. **Request:** declaration request as an area of high nature conservation value.
- 1.4. **Property description:** Lot 2 RP15912 - Gold Coast City Council
- 1.5. **Land tenure:** Freehold
- 1.6. **Decision reference:** 2018/007110

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 2018/007110 as an area of high nature conservation value in accordance with s19F of the *Vegetation Management Act 1999* (VMA).

The chief executive considers the declared area to meet the following criteria under s19G of the VMA—

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

- a wildlife refugium;
- 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;

The documents outlined in 2.2 form part of this declaration.

2.2. Voluntary declaration documents:

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

- Declared area map (DAM 2018/007110)
- Declared area management plan (DAMP 2018/007110)

2.3. **Property Map of Assessable Vegetation**

In accordance with s20B (1) (a) of the VMA, the following Property Map of Assessable Vegetation (PMAV) has been made for the declared area. This PMAV will replace PMAV 2009/002945, for lot 2 on RP15912 only, under s20D of the VMA.

Declared area PMAV (PMAV 2018/007111)

2.4. **Date of declaration:** 22 February 2019

3. **Delegated officer's signature**



Michael Gordon
Senior Natural Resource Management Officer (VM1)

Date: 22 February 2019

Appendix B

SHG camera trapping images



Short-beaked echidna



Wonga pigeon



Long-nosed bandicoot



Red-necked wallaby



Australian brush turkey



Koala



042F 05C 07/06/2022 20:12:48

Northern brown bandicoot



053F 11C 11/06/2022 19:49:10

Red-necked wallaby



062F 16C 13/06/2022 08:29:44

Australian brush turkey



054F 12C 14/06/2022 13:58:08

Red-necked wallaby



051F 10C 15/06/2022 23:39:52

European red fox



047F 08C 09/06/2022 18:53:44

Long-nosed bandicoot



Bush rat



Australian brush turkey



European red fox



Red-necked wallaby



Black rat



Bush rat



Eastern yellow robin



Short-beaked echidna



Long-nosed bandicoot



Red-necked wallaby



Red-necked wallaby



Black rat



Motorbikes

Appendix C

Non-native vertebrate pest monitoring
report March 2023

LEADING THE WAY
IN ENVIRONMENTAL
MANAGEMENT



**POST VERTEBRATE PEST
MONITORING REPORT**

ORMEAU

March 2023

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Document Control Page

Version Control

Version	Purpose	Author	Reviewed / approved by	Date
0.1	Draft	Systems	Chantal Sargeant	14/04/2023

Distribution Control

Copy	Purpose	Issued to:	Name	Date
1.0	Final	Boral	Matthew Allan	14/04/2023

Project Number: BSQ5677

Our Document Reference: BSQ5677 - Boral -OrmeauMonitoringEventPostActivityReportRev1.0

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1. Introduction

1.1 Background

Boral Resources Pty Ltd (Boral) engaged Biodiversity Australia to undertake vertebrate pest monitoring works across the offset area of land located on Cliff Barrons Road, Ormeau. Biodiversity Australia aims to assist Boral in demonstrating their commitment to achieving the objectives of the Vertebrate Pest Management Plan (VPMP) 2021 for the offset area located approximately 1.7km north of the Ormeau quarry site. The offset site area is approximately 77ha and includes remnant vegetation and areas requiring revegetation to provide suitable habitat for Koalas. The offset area is located within a Koala Priority Area with the site predominantly mapped as Core Koala Habitat Areas.

These works have targeted known populations of Wild Dogs (*Canis lupus familiaris*), which have been identified as having the most significant impact on Koala populations and are listed as restricted invasive species under the *Biosecurity Act 2014*. The monitoring event also targeted other species including European Red Fox (*Vulpes vulpes*) and Feral Cat (*Felis catus*), though these species pose a lesser threat or indirect impact on Koala populations and habitat.

The monitoring event of the Boral Ormeau site was conducted over an eleven-day period from Friday 24th February to Tuesday 7th March 2023, with the aims of obtaining baseline data on current levels of pest animal abundance, distribution and activity throughout the management areas. Passive infrared monitoring cameras were placed along trails and tracks within designated management areas, as outlined in the VPMP.

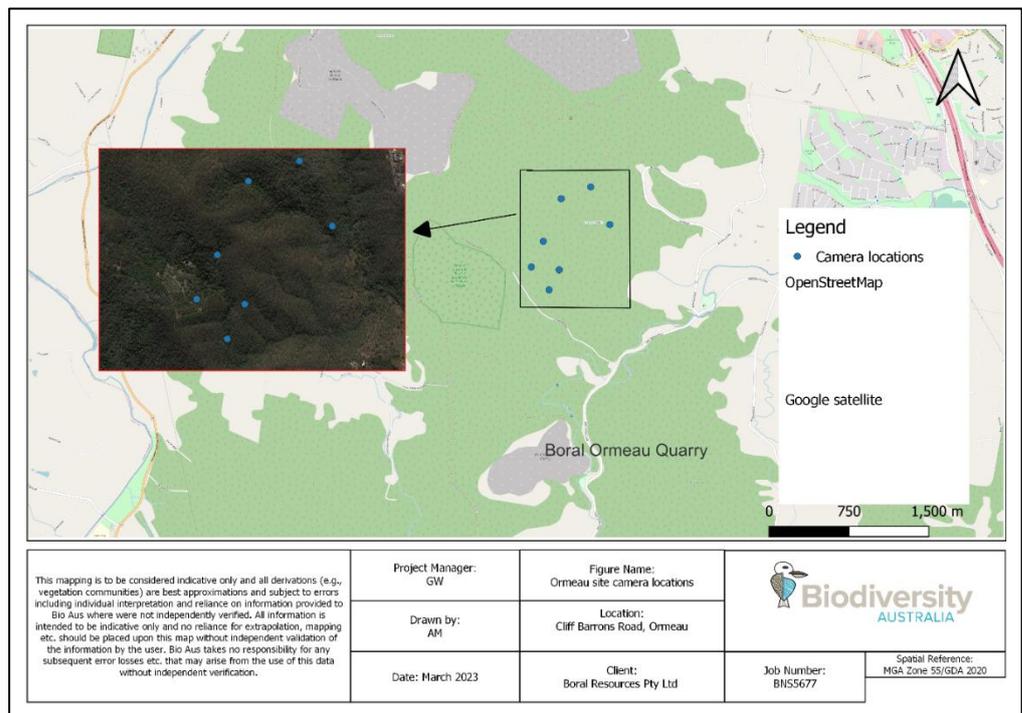


2. Methodology

2.1 Methodology – Camera Monitoring

Five monitoring cameras were installed across the Ormeau site for the purpose of pest management, to obtain initial baseline data and observe the species utilising the site. Over the eleven-day monitoring event conducted from Friday 24th February to Thursday 7th March 2023, both native and pest species were observed to find the potential impact pest species may have to all native flora and fauna on site. The passive infrared monitoring cameras were placed along trails and tracks within designated management areas, as outlined in the VPMP. The cameras were placed in a variety of habitats including gullies and hill tops across the site with the intentions of capturing an accurate picture of the fauna inhabiting the various habitat types within the site. The cameras were fixed to a tree at a height of approximately 70cm off the ground with a lure placed in front of the camera at a distance of 1m. The locations of the five cameras are shown in Figure 1 below:

Figure 1: Camera locations



3. Results

3.1 Results – Camera Monitoring

Five monitoring cameras were installed across the Ormeau site over the eleven-day monitoring event conducted from Friday 24th February to Thursday 7th March 2023. Five European Foxes (*Vulpes vulpes*) were observed during the monitoring event, on cameras 3 and 4, on five separate occasions, while nine native Red-neck wallabies (*Macropus rufogriseus*) were also observed. Results are displayed in Table 1:

Table 1: Soft jaw traps deployed:

Camera Number	Pests observed	Native fauna observed
1	0	1 Red-neck wallaby 25/02/23
2	0	0
3	2 Fox 03/03/23 06/03/23	7 Red-neck wallabies 27 & 28/02/23 02,04,06/03/23
4	3 Fox 24/02/23 02/03/23 07/03/23	1 Red-neck Wallaby 24/02/23
5	0	0
Total	5	9



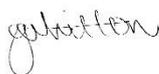
4. Summary and Future Recommendations

Five monitoring cameras were installed across the Ormeau site over the eleven-day monitoring event conducted from Friday 24th February to Thursday 7th March 2023, to detect both native and pest fauna species. Though no target species of Wild Dogs (*Canis lupus familiaris*), were observed, the camera traps did record five separate occurrences of European Fox (*Vulpes vulpes*). However, it is difficult to determine if this was the same fox or several, though the population of foxes on site could be considered of low concern. Native fauna was also observed during the monitoring event including nine Red-neck wallabies (*Macropus rufogriseus*), indicating a healthy ecosystem.

It is recommended that on-going monitoring events should be conducted during different seasons and increase the number cameras and locations, with the aim of expanding the baseline data.

Yours sincerely,

Biodiversity Australia



Georgia Whitton
Biosecurity Operations Manager
Biosecurity Management Division

Phone: 1300 319 954

Mobile: 0427 136 994



Appendix D

Weed management record sheets

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	24
Date of Work:	<i>19/07/2022</i>	Team Size:	3	Supervisor:	3.30pm

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	24
--------------------	---------------	---------------------	---------------	-----------------------------	-----------

(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
----------------------	----------------

Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Hand removal of lantana.	1000	m 2	24
2				
3				
4				
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Angus Westerberg	8	2	Luke C-Cooper	8	3	Mitchell Andersen	8	4		
5			6			7			8		

WHS – Toolbox Talk					
1	Steep Slopes.	2	Remote Terrain.	3	Spiky Plants.
4	Slippery Creek Crossing.	5	Emergency Evacuation Procedure.	6	Falling Branches.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo 360	QTY	200ml	1:1	Lantana	CSP
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				400ml				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Dry	Wind speed (km/hr):	10-25
<input type="checkbox"/> Overcast	<input checked="" type="checkbox"/> Mild	Wind direction (N, E, S, W):	SW
<input type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	22

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

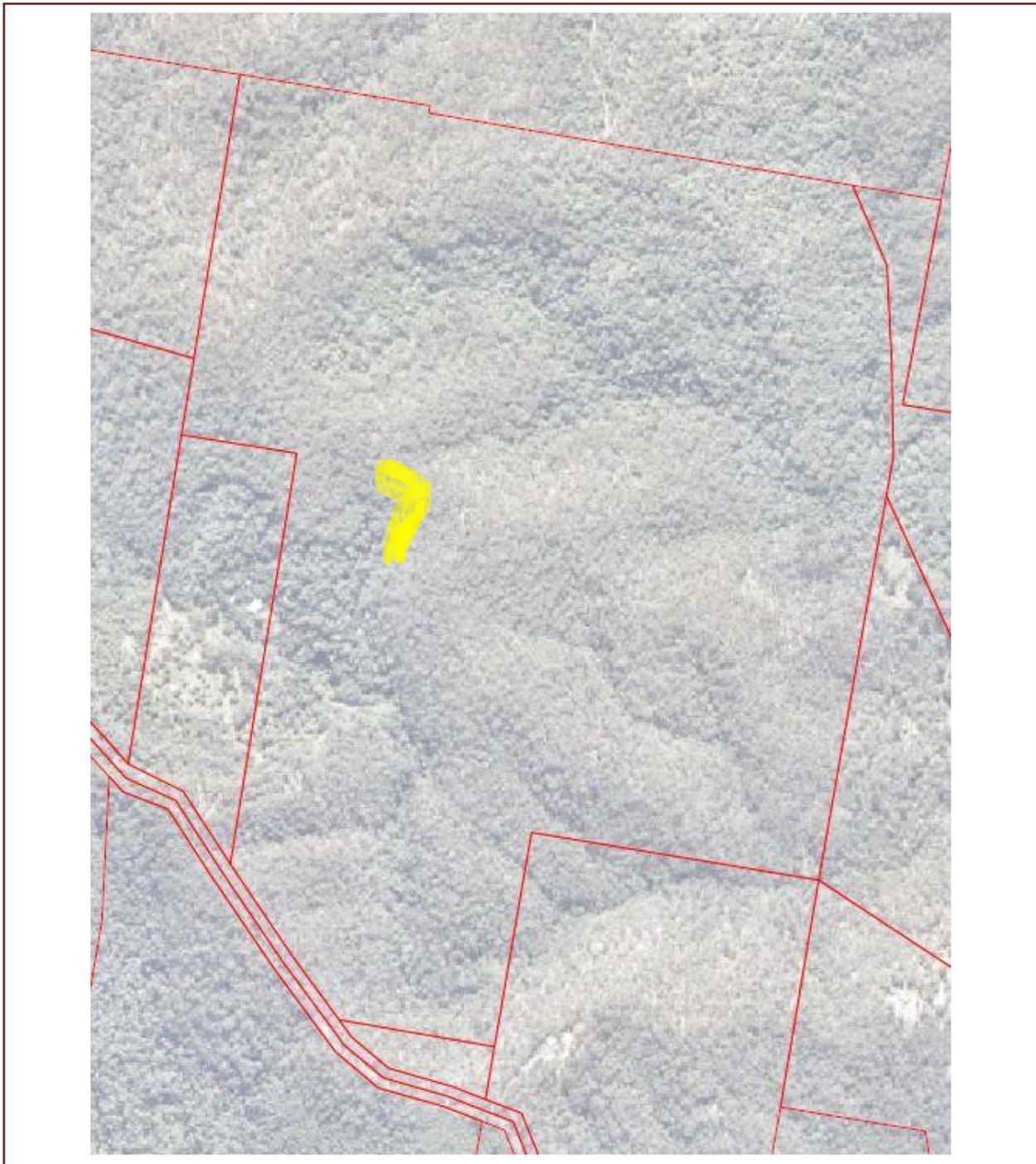
Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Viola sp. Goodeina sp. Hardenbergia sp.
	Fruiting:	
	Germinating:	Trema sp. Cupaniopsis sp. Araucaria sp.
	Threatened or significant:	Brachychiton ormeau
Provide general comments on the work undertaken (constraints, wins etc...)		
Continued manual removal of lantana working ridge lines. Avoiding using splatter treatment due to previous treatments being ineffective. Hand pulled the bulk of the lantana, only having to cut paint some of the larger stumps.		
What should be the focus for next time?		
Use loppers to cut up pulled lantana. Continue working top of gully pushing back down towards creek.		
Any recommendations for the management of the site?		
None.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend				
	Foliar Spray		CSP, Fr, Si	Rubbish
	Slashing		Hand Weed	Other
Define Other:				

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Manually removed lantana.



Photo 4 - Manually removed lantana.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
	19/07/2022
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
FC	20/7/22
Administration Signature	Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	<i>24</i>
Date of Work:	<i>20/07/2022</i>	Team Size:	<i>2</i>	Supervisor:	<i>Luke C-Cooper</i>

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	<i>21</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Manual removal of lantana.	1200	m 2	21
2				
3				
4				
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Angus Westerberg	7	2	Luke C-C	7	3	Mitchell Andersen	7	4		
5			6			7			8		

WHS – Toolbox Talk					
1	Waterway.	2	Wet Weather.	3	Site Remoteness.
4	Scrubitch.	5	Slippery Rocks.	6	Strong Winds.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo 360	QTY	400ml	1:1	Lantana	CSP
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				800ml				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Dry	Wind speed (km/hr):	0-30
<input checked="" type="checkbox"/> Overcast	<input checked="" type="checkbox"/> Mild	Wind direction (N, E, S, W):	SE
<input checked="" type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	23

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

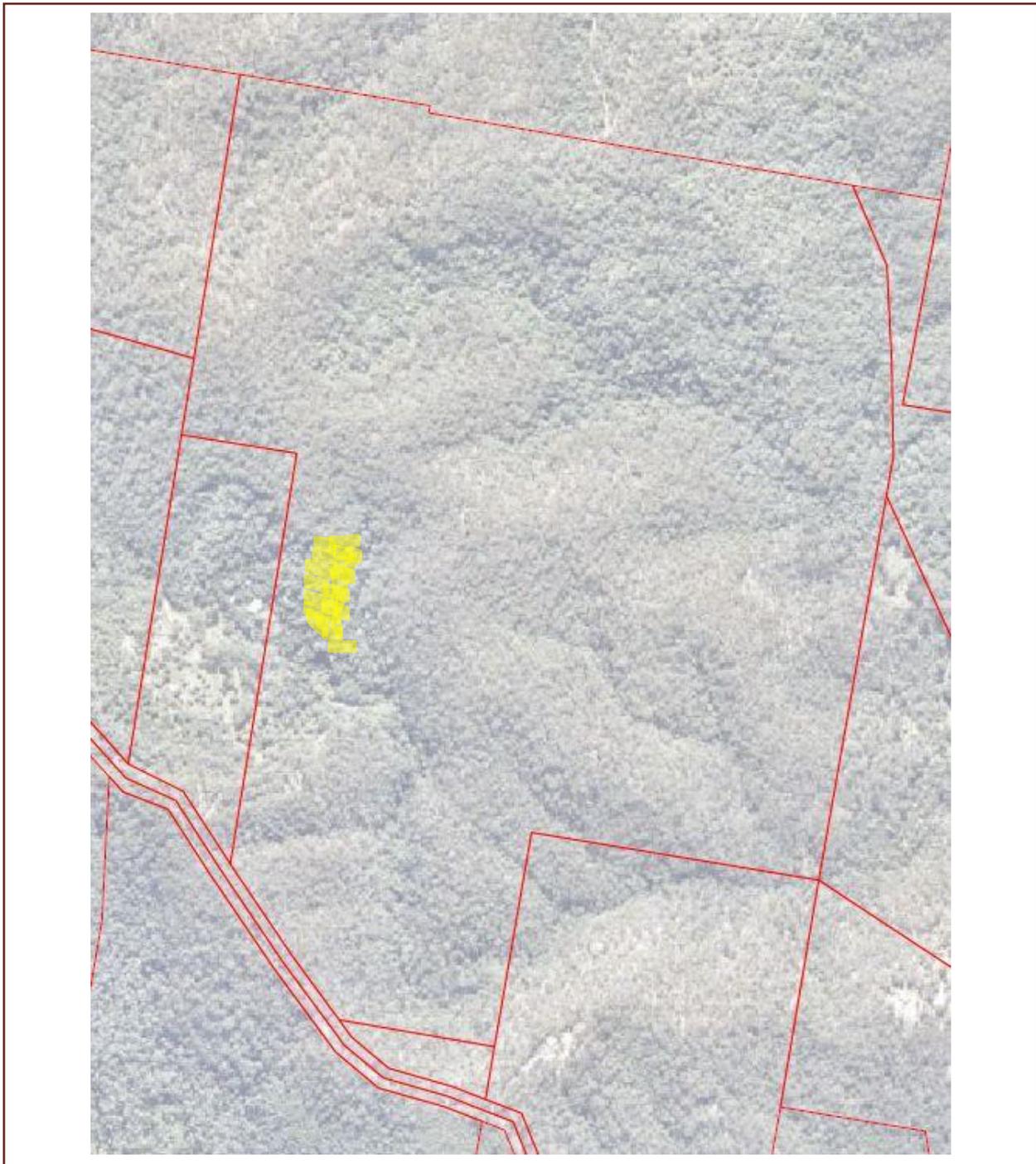
Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Smilax sp. Viola sp.
	Fruiting:	-
	Germinating:	Araucaria sp. Mallotus sp. Hibiscus sp.
	Threatened or significant:	Brachychiton ormeau
Provide general comments on the work undertaken (constraints, wins etc...)		
Worked ridgeline adjacent to private property starting from creek working up. Mainly manual removal but also cut painting larger stumps growing up into canopy. Left site early due to wet weather and not being able to load weather radar. So unsure as to what amount of rain was on way.		
What should be the focus for next time?		
Continue working along ridge-line adjacent to house.		
Any recommendations for the management of the site?		
None.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend				
	Foliar Spray		CSP, Fr, Si	Rubbish
	Slashing		Hand Weed	Other
Define Other:				

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Before.



Photo 4 - After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
	20/07/2022
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
FC	20/7/22
Administration Signature	Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	
Date of Work:	<i>18/8/22</i>	Team Size:	<i>1</i>	Supervisor:	<i>Matthew Phillips</i>

Start Time:	<i>630</i>	Finish Time:	<i>1039</i>	Total Working Hours:	<i>4</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Supervise tree lopping	1	Tree	4
2				
3				
4				
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Matthew Phillips	4	2			3			4		
5			6			7			8		

WHS – Toolbox Talk					
1	Quarry operations	2	Working near roadway	3	Tree loppers
4		5		6	

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method
	Active Ingredient	Trade Name	(ml, g, other)				
	<input type="checkbox"/>	Glyphosate	QTY				
	<input type="checkbox"/>	Other	QTY				
	<input type="checkbox"/>	Dye	QTY				
	<input type="checkbox"/>	Adjuvant	QTY				
Total Volume of mixture (litres):							

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method
	Active Ingredient	Trade Name	(ml, g, other)				
	<input type="checkbox"/>	Glyphosate	QTY				
	<input type="checkbox"/>	Other	QTY				
	<input type="checkbox"/>	Dye	QTY				
	<input type="checkbox"/>	Adjuvant	QTY				
Total Volume of mixture (litres):							

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method
	Active Ingredient	Trade Name	(ml, g, other)				
	<input type="checkbox"/>	Glyphosate	QTY				
	<input type="checkbox"/>	Other	QTY				
	<input type="checkbox"/>	Dye	QTY				
	<input type="checkbox"/>	Adjuvant	QTY				
Total Volume of mixture (litres):							

Environmental Conditions:

<input type="checkbox"/> Clear	<input type="checkbox"/> Dry	Wind speed (km/hr):	
<input type="checkbox"/> Overcast	<input type="checkbox"/> Mild	Wind direction (N, E, S, W):	
<input type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)		
Flora notes:	Flowering:	
	Fruiting:	
	Germinating:	
	Threatened or significant:	
Provide general comments on the work undertaken (constraints, wins etc...)		
Supervise heritage trees tree work at boreal environmental park Remove the dangerous head of tree which supports a straggler fig Tree cut down as far as possible without disturbance of strangler fig		
What should be the focus for next time?		
Na		
Any recommendations for the management of the site?		
Na		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
Na		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend				
	Foliar Spray		CSP, Fr, Si	Rubbish
	Slashing		Hand Weed	Other
Define Other:				

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 -



Photo 2 -



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 -



Photo 4 -



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
	18/8/22
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
FC	19/8/22
Administration Signature	Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	<i>24</i>
Date of Work:	<i>24/08/2022</i>	Team Size:	<i>3</i>	Supervisor:	<i>Luke C-Cooper</i>

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	<i>24</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Hand removal / Cut paint lantana.	2000	m 2	24
2				
3				
4				
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Jack Thatcher	8	2	Luke C-Cooper	8	3	Angus Westerberg	8	4		
5			6			7			8		

WHS – Toolbox Talk					
1	Evacuation procedure in event of fire.	2	Walking along waterway.	3	Steep terrain.
4	Remoteness of site.	5	Lack of reception.	6	Slippery terrain.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo	QTY	600ml	1:1	Lantana	CSP/HW
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				1.2L				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Dry	Wind speed (km/hr):	10-40
<input type="checkbox"/> Overcast	<input type="checkbox"/> Mild	Wind direction (N, E, S, W):	S
<input type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	25

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Tephrosia sp.
	Fruiting:	-
	Germinating:	-
	Threatened or significant:	Brachychiton ormeau Xanthorrhoea sp.
Provide general comments on the work undertaken (constraints, wins etc...)		
Continued cut paint and hand removal of lantana through Offset. Working along boundary adjacent to private property working up along ridgeline.		
What should be the focus for next time?		
Finish working lantana along ridgeline connecting up with area previously treated.		
Any recommendations for the management of the site?		
None.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend				
	Foliar Spray		CSP, Fr, Si	Rubbish
	Slashing		Hand Weed	Other
Define Other:				

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Before.



Photo 4 - After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 – Before.



Photo 6 – After.



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:



24/08/2022

Supervisor Signature

Date

Bushcare Administration to Sign: This report has been checked and approved

FX

25/8/22

Administration Signature

Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	<i>24</i>
Date of Work:	<i>25/08/2022</i>	Team Size:	<i>3</i>	Supervisor:	<i>Luke C-Cooper</i>

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	<i>24</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Hand removal & Cut paint of lantana.	1800	m 2	24
2				
3				
4				
5				

Team Members / Hours Worked on Site										
	Name	Hours		Name	Hours		Name	Hours	Name	Hours
1	Angus Westerberg	8	2	Kai Whelan	8	3	Luke C-Cooper	8	4	
5			6			7			8	

WHS – Toolbox Talk					
1	Waterway.	2	Steep Slopes	3	Biting Insects.
4	Slips trips falls.	5	Lack of reception.	6	What to do in event of fire.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo 360	QTY	500ml	1:1	Lantana	HW/CSP
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				1L				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input checked="" type="checkbox"/> Dry	Wind speed (km/hr):	10-30
<input type="checkbox"/> Overcast	<input type="checkbox"/> Mild	Wind direction (N, E, S, W):	S
<input type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	24

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Alyxia sp. Acacia sp.
	Fruiting:	-
	Germinating:	Araucaria sp. Mallotus sp. Polycalis sp.
	Threatened or significant:	Brachychiton ormeau Xanthorrhoea sp.
Provide general comments on the work undertaken (constraints, wins etc...)		
Continued cut and paint and hand weeded oval of lantana. Reached the track and located order boundary. Then worked lines up slope towards track, working back towards areas already treated.		
What should be the focus for next time?		
Finish lantana clump between worked areas.		
Any recommendations for the management of the site?		
None.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend					
	Foliar Spray		CSP, Fr, Si		Rubbish
	Slashing		Hand Weed		Other
Define Other:					

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Before.



Photo 4 - After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
	25/08/2022
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
FC	29/8/22
Administration Signature	Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	<i>24</i>
Date of Work:	<i>31/10/2022</i>	Team Size:	<i>3</i>	Supervisor:	<i>Luke C-Cooper</i>

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	<i>24</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Cut scrape paint and hand removal of lantana	1200	m 2	24
2				
3				
4				
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Angus Westerberg	8	2	CJ Rakuraku	8	3	Luke C-Cooper	8	4		
5			6			7			8		

WHS – Toolbox Talk					
1	Remoteness.	2	Steep Slopes.	3	Waterway.
4	Cockspur / Lawyer Vine.	5	Hedge trimmer.	6	Warm Weather.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo 360	QTY	250ml	1:1	Lantana	HW/CSP
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				500ml				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Dry	Wind speed (km/hr):	10-30
<input checked="" type="checkbox"/> Overcast	<input type="checkbox"/> Mild	Wind direction (N, E, S, W):	N
<input type="checkbox"/> Showers	<input checked="" type="checkbox"/> Humid	Temperature (°C):	28.6

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Xanthorrhoea sp. Goodeina sp.
	Fruiting:	-
	Germinating:	-
	Threatened or significant:	Xanthorrhoea sp. Brachychiton ormeau
Provide general comments on the work undertaken (constraints, wins etc...)		
Continued manual removal of lantana. This visit used hedge trimmer to remove bulk material and hand pulled stumps. Unsure weather this was more effective.		
What should be the focus for next time?		
Take hedge trimmer for cutting tracks through lantana and splatter spray. Take buckets for filling knapsacks.		
Any recommendations for the management of the site?		
None.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend				
	Foliar Spray		CSP, Fr, Si	Rubbish
	Slashing		Hand Weed	Other
Define Other:				

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Before.



Photo 4 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
	31/10/2022
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
FC	1/11/22
Administration Signature	Date

Bushcare Services – Daily Record Sheet v 1.3

Client:	<i>Boral</i>	Project:	<i>Ormeau EPBC Offset</i>	Time Allocated:	<i>24</i>
Date of Work:	<i>28/11/2022</i>	Team Size:	<i>3</i>	Supervisor:	<i>Luke C-Cooper</i>

Start Time:	<i>7.00am</i>	Finish Time:	<i>3.30pm</i>	Total Working Hours:	<i>24</i>
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(30-minute lunch break is assumed)

Vehicle Rego:	<i>920 DN7</i>
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Tasks to Be Undertaken/ Completed				
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Hedge trimmer.	1200	m 2	8
2				
3	Hand pull / cut paint.			
4		1200	m 2	16
5				

Team Members / Hours Worked on Site											
	Name	Hours		Name	Hours		Name	Hours		Name	Hours
1	Angus Westerberg	8	2	Luke C-Cooper	8	3	Nicholas Kent	8	4		
5			6			7			8		

WHS – Toolbox Talk					
1	Waterway.	2	Bull / Jumping Ants.	3	Warm Weather.
4	Fire Danger.	5	Potential Thunderstorm.	6	Hedge trimmer.

Bushcare Services – Daily Record Sheet v 1.3

Herbicide Use

Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
Applicator Bottle	Active Ingredient	Trade Name	(ml, g, other)					
	<input checked="" type="checkbox"/>	Glyphosate	Nufarm Weedmaster Duo 360	QTY	400ml	1:1	Lantana	CSP/HW
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):				800ml				

Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Application 3:

Equipment Used	Chemicals Used (active ingredient/trade name)		Quantity applied		Rate:	Plants treated	Method	
	Active Ingredient	Trade Name	(ml, g, other)					
	<input type="checkbox"/>	Glyphosate		QTY				
	<input type="checkbox"/>	Other		QTY				
	<input type="checkbox"/>	Dye		QTY				
	<input type="checkbox"/>	Adjuvant		QTY				
Total Volume of mixture (litres):								

Environmental Conditions:

<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Dry	Wind speed (km/hr):	10-25
<input checked="" type="checkbox"/> Overcast	<input checked="" type="checkbox"/> Mild	Wind direction (N, E, S, W):	NE
<input type="checkbox"/> Showers	<input type="checkbox"/> Humid	Temperature (°C):	29.6

Methods: Foliar Spray (FS), Cut Scrape Paint (CSP), Frilling (FR), Cut and Paint (CP), Stem injection (SJ)

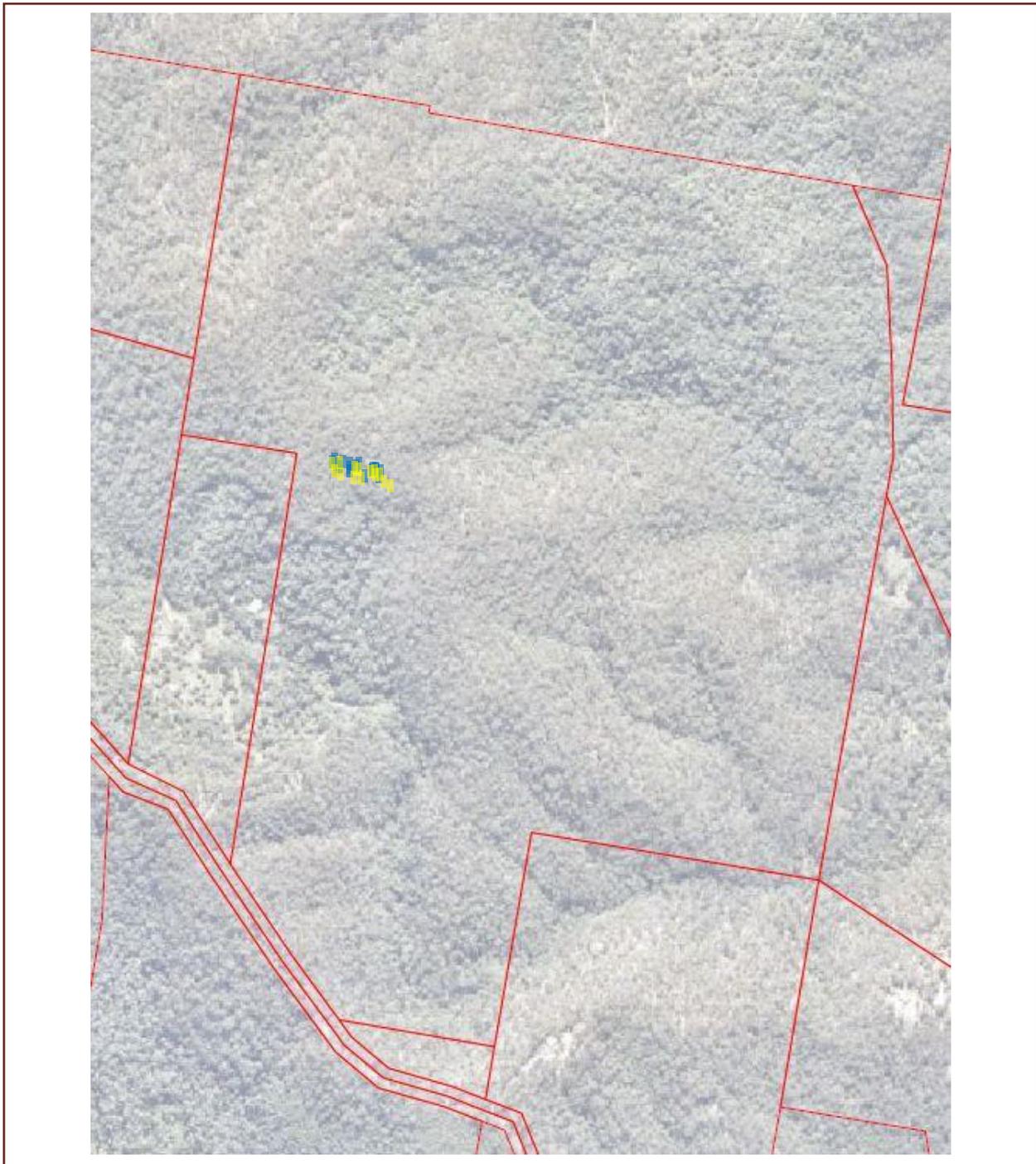
Bushcare Services – Daily Record Sheet v 1.3

Site Notes

Fauna notes: (significant sightings)	None.	
Flora notes:	Flowering:	Xanthorrhoea sp.
	Fruiting:	Alyxia sp.
	Germinating:	-
	Threatened or significant:	Macadamia sp. Xanthorrhoea sp. Brachychiton ormeau
Provide general comments on the work undertaken (constraints, wins etc...)		
Continued treatment of lantana. Was planning on cutting tracks and splatter treating the lantana but opted to continue manual removal due to recent dry weather felt uptake of herbicide would not be sufficient. Continued knocking down with hedge trimmer and cut paint or manually removing stumps.		
What should be the focus for next time?		
Weather permitting cut tracks and splatter treat lantana.		
Any recommendations for the management of the site?		
Access to fire trails would result n more area covered.		
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?		
None.		

Bushcare Services – Daily Record Sheet v 1.3

Mud Map:



Legend					
	Foliar Spray		CSP, Fr, Si		Rubbish
	Slashing		Hand Weed		Other
Define Other:					

Bushcare Services – Daily Record Sheet v 1.3

Photo Record

Photo 1 - Before.



Photo 2 – After.



Bushcare Services – Daily Record Sheet v 1.3

Photo 3 - Treated lantana.



Photo 4 – Treated lantana.



Bushcare Services – Daily Record Sheet v 1.3

Photo 5 -



Photo 6 -



Bushcare Services – Daily Record Sheet v 1.3

Supervisor to Sign: This report represents a true and accurate reflection of works undertaken:	
---	--

	28/11/2022
Supervisor Signature	Date

Bushcare Administration to Sign: This report has been checked and approved	
---	--

Fleur Campbell	5/12/22
Administration Signature	Date

Appendix E

Burn Plan/Fire Reporting

S27 – C OPERATIONAL PRESCRIBED BURN PLAN

BURN NAME	Boral_HRB_1.23	Lot/Plan/s No.	2/RP15812
Burn No.	1.23 FMU 2	(all approvals obtained) <input type="checkbox"/> Yes	2/RP15912
Location	Ormeau	Road Segment No.	
LGA	GCCC	Proposed Timing	April - December
ECC details		TASMIS number	
Permit Number		Actual Date	

Prescribed Burn Planner	Ben Tidey	March 2023 10/01/2023
	Name & position	Signature & date
	Burn Planning checklist complete	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Burn Plan Reviewer	Matt Ferguson	January 14
	Name & position	Signature & date
	Burn Plan Review checklist complete	<input type="checkbox"/> Yes <input type="checkbox"/> No

ATTACHMENTS – may not be attached to this document	
<input type="checkbox"/> Burn permit (Mandatory) <input checked="" type="checkbox"/> Burn map (Mandatory) <input checked="" type="checkbox"/> Complexity Rating (Mandatory) <input checked="" type="checkbox"/> Pre Burn Works order (if applicable) <input type="checkbox"/> Vegetation & Habitat Map (if applicable) <input type="checkbox"/> Traffic management plan (if applicable)	<input type="checkbox"/> Map of notified residents (if applicable) <input type="checkbox"/> Media advice (if applicable) <input checked="" type="checkbox"/> Risk assessment (if applicable) <input checked="" type="checkbox"/> Contingency map/s (if applicable) <input type="checkbox"/> Other (if so what)

SITUATION (SMEACS)					
PLANNING					
Complexity Rating:		(CR – 2), complexity [64].			
SITE CHARACTERISTICS (refer to Operational Burn Map)					
Area to be treated	Ha	Percentage aim	40-60%	Last Fire type	10+ Years since last fire
Description of site (Topography, slope and aspect)	Moderately steep slopes, sloping down to flat grass land along drainage line. Section Defence Range located on flat area.				
FUEL CHARACTERISTICS					
Vegetation type (General description of vegetation & fuel type, height, fuel variability)	Forested slopes with eucalypt species, partially shrubby with predominant surface fuels. Flat area heavily grassed. Steep sections in the northern part of the burn area with multiple aspects, mainly Easterly.				
Overall fuel hazard score	<input type="checkbox"/> Low <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> High <input type="checkbox"/> Very High <input type="checkbox"/> Extreme				15-20t/Ha
VALUES MANAGEMENT					
Vegetation Management Act class	<input checked="" type="checkbox"/> Not of Concern <input checked="" type="checkbox"/> Least Concern <input checked="" type="checkbox"/> Of Concern <input checked="" type="checkbox"/> Vulnerable <input type="checkbox"/> Endangered				
Fauna/Flora of site Significant (Any values listed here that may be adversely affected by the planned fire to be included in the Values Assessment section.)	Species: Koala Presence identified as likely: <input checked="" type="checkbox"/> Yes Known identified location: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Value at threat from planned fire activities: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes – include in values assessment				
	Species: Glossy black cockatoo Presence identified as likely: <input checked="" type="checkbox"/> Yes Known identified location: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Value at threat from planned fire activities: <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes – include in values assessment				
	Regional Ecosystem code: 12.11.3a VMA Class: <input type="checkbox"/> Not of Concern <input checked="" type="checkbox"/> Least Concern <input type="checkbox"/> Of Concern <input type="checkbox"/> Vulnerable <input type="checkbox"/> Endangered Short Description: Eucalyptus siderophloia, E. propinqua +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. acmenoides open forest on metamorphics +/- interbedded volcanics Fire Management Guidelines: SEASON: Summer to winter. INTENSITY: Plan for low to moderate. Unplanned occasional high intensity wildfire will occur. INTERVAL: 4-8 years maintains a healthy grassy system. 8-20 years for shrubby elements of understorey. STRATEGY: Aim for 40-60% mosaic burn. Needs disturbance to maintain RE structure (eucalypt overstorey with open understorey of predominantly non-rainforest species). Any moist sclerophyll that is relatively open with a mixture of grasses and shrubs should be a priority for fire management to retain RE structure. ISSUES: Frequent fire is needed to maintain understorey integrity, keeping more mesic species low in the profile of the understorey so that other species can compete. A grassy system is especially important for species such as the eastern bristlebird and its habitat. It is essential that wildfires are not the sole source of fire in this ecosystem. High intensity fires occur periodically through time, however frequent low to moderate intensity fires will create the disturbance required to keep the understorey diverse. A follow-up burn soon after a high intensity wildfire can be considered to reduce germinating mesic species. This 'of concern' RE may contain a high number of rare and threatened plant species (e.g., Acomis acoma, Corchorus cunninghamii, Marsdenia coronata and Sophora fraseri) which require appropriate fire management. Value at threat from planned fire activities: <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – include in values assessment				

Regional Ecosystem code: 12.11.5

VMA Class: Not of Concern Least Concern Of Concern Vulnerable Endangered

Short Description: *Corymbia citriodora* subsp. *variegata* woodland to open forest +/- *Eucalyptus siderophloia*/*E. crebra*, *E. carnea*, *E. acmenoides*, *E. propinqua* on metamorphics +/- interbedded volcanics

Fire Management Guidelines: SEASON: Summer to winter. INTENSITY: Low to moderate. INTERVAL: 4-25 years. STRATEGY: Aim for 40-60% mosaic burn. Burn with soil moisture and with a spot ignition strategy so that a patchwork of burnt/unburnt country is achieved. ISSUES: The fire regime should maintain a mosaic of grassy and shrubby understoreys. Control of weeds is a major focus of planned burning in most areas. Careful thought should be given to maintaining ground litter and fallen timber habitats by burning only with sufficient soil moisture. Burning should aim to produce fine scale mosaics of unburnt areas. Variability in season and fire intensity is important, as well as spot ignition in cooler or moister periods to encourage mosaics.

Value at threat from planned fire activities: No Yes – include in values assessment

DRAFT

Burn Area Values Assessment			
This section to be used to assess values within (or adjacent) to the burn area that may be threatened (adversely) from the planned fire event			
Value Type	Value	Threat (from the activity)	Mitigation – Task/Constraint
B – Built N – Natural C – Cultural U - Utility	(eg Power pole) (eg Water Mouse)	(Pole may become fire affected and fall, disrupting power supply) (Fire may affect nests)	(Task – rake around pole) (Could be a task – rake, or constraint. Refer to Standard Mitigation Actions sheet and insert relevant details) Any <u>tasks</u> to be transferred to the 'Pre burn works order' sheet.
N	Koala	Direct flame contact or radiant heat scorch to koala.	Identify expected fire behaviour. Identify high value trees. Identify any koalas, mark trees with pink flagging tape, follow SOP. Record location and file.
N	High value tree	Fire damage	Rake/wet as required and as practical.
N	Fire Sensitive vegetation	Fire incursion	Undertake burn with good soil moisture conditions. Consider fire sensitive vegetation in during ignitions.
N	Glossy black cockatoo	Loss of feed trees	Undertake burn with good soil moisture conditions appropriate to meet burn objectives. Manage fire intensity around stands.
C	Cultural site IF FOUND	Ground disturbance from machinery	Exclude machinery from area.

Control Lines			
Control lines Refer to Operational Map Type Description	Name of control line	Location	Type /width (A – B – C – D)
A – Heavy appliance (Urban fire truck or water tanker etc.)	TBA	Western control line	C/4
	TBA	North west control	C/4
	TBA	North east control	C-D/4
	TBA	Southern control	C/4
B – Medium appliance (Echo or Isuzu etc.)			
C – 4WD vehicle access (Land Cruiser or Patrol etc.)			
D – Walking trail or UTV			
Contingency control lines (Identify where a breach of containment could possibly occur. List fallback lines in the event of a breakout)	Surrounding roads, creek lines, less flammable vegetation. Limited fire trail off boral estate,		
Control Line Task Actions Required	<input checked="" type="checkbox"/> Yes (If yes , has the <i>Pre burn works order</i> sheet been populated?) <input type="checkbox"/> No		

MISSION

Aim & Objectives (Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Fire mitigation, treat 40-60% burnable fuel load. Burn ridge lines and allow fire to back down into riparian gullies
Expected duration of burn/Timeline	2-4 days

EXECUTION

PREFERRED FIRE/FUEL PARAMETERS

Weather conditions	Max temp	32°	Max wind speed & preferred direction	20 km Any	Min RH Max RH	25% 80%
Flame height	1-3 m (average)	Scorch Height:	3 - 9m (average)			
Other guidelines (List any weather and fuel moisture conditions which will prohibit or restrict burning)	Max fire danger index	12	Max KBDI	150		
Suggested Ignition Method	<input checked="" type="checkbox"/> Ground <input type="checkbox"/> Aerial <input type="checkbox"/> Slingshot <input type="checkbox"/> Other (if other what)					
Ignition pattern (Describe the ignition method and sequence of lighting) (Procedure may be modified on the day of the burn, based on conditions and test burn)	Ignition from highpoints and from fire sensitive vegetation to meet objectives.					

SUGGESTED RESOURCES

Machinery/plant items	Fireland	Council /Utility	RFSQ	QFES	Other Land manager
Type Number req.					
	4 x LA				
Totals:					

Specialist personnel (List function & name)	Fauna Spotter.				
Contingency resources (List additional resources required if breakout occurs)	Fireland, within 2 hours 4 light attacks Pozzie track 8 hours				
Water points (Refer to operational map) (Describe the type e.g. hydrant, dam, static etc. & the location/s-grid reference)	Type	Location			
	Creek	Point CN (west of)			
	TBA				

Smoke Management			
Assessment (Describe what may be affected and the strategies to reduce the risk of adverse effects) This section to be used to assess values (relating to smoke) that may be threatened (adversely) from the planned fire event			
Value Type	Value	Threat (from the activity)	Mitigation – Task/Constraint
B – Built N – Natural P - Person C – Cultural U - Utility	(e.g. Vulnerable persons)	(Smoke impacts - health)	(Task – liaise with management to close windows) (Constraint – Only burn with a northerly wind) Any <u>tasks</u> to be transferred to the 'Pre burn works order sheet.
B		Surrounding residents and business smoke may impact on visibility and health	Constraint – burn with wind speeds that allow smoke to lift and disperse

Traffic Management		
Assessment (Describe what may be affected and the strategies to reduce the risk of adverse effects) This section to be used to assess values (in relation to traffic management) that may be threatened (adversely) from the planned fire event		
Value	Threat (from the activity)	Mitigation – Task/Constraint
(e.g. Gympie Road)	(Smoke reducing visibility)	(Task – Install smoke hazard signs) (Constraint – Only burn with a northerly wind) Any <u>tasks</u> to be transferred to the 'Pre burn works order sheet.
N/A		

ADMINISTRATION

Assembly area (Refer to Operational Burn Map) (Describe the location)	Boral carpark in event of incident House (Vacant) general
Catering (Describe location, time and supplier)	Self Sufficient.
Fuel (Describe location and type)	Ormeau

NEIGHBOUR & LAND OWNER NOTIFICATIONS

- Firecom must** be notified prior to lighting up, and at the completion of the day.
- All land owners **must** give consent for works to be carried out on their land.
- 72 hours notice **must** be given to adjoining land owners/occupiers.

Agency / Neighbour	Contact No.	Advised Date / Time	Notes
City of Gold Coast	media@goldcoast.qld.gov.au		
QFES media	QFESMedia@qfes.qld.gov.au		
Neighbours			Letter Box drop
Dept Health	GCHHSDisaster@health.qld.gov.au		
Dept Health	SHECC@health.qld.gov.au		
Firecomm SE	1800689958		
Local Ward Office - GCCC	division9@goldcoast.qld.gov.au		
City of Gold Coast	media@goldcoast.qld.gov.au		

Patrol (outline patrol responsibilities, timeframe & resources)	
Other (Include any other logistical arrangements. Gate keys?)	Inductions/Gate keys/Radios required. Boral Procedures as required.

COMMAND AND COMMUNICATIONS

ORGANISATIONAL STRUCTURE & COMMUNICATIONS

Fire command	Network/Channel FC - UHF channel 1			
Fire-ground	Network/Channel			
Aviation	Network/Channel			
Position	Name	Call Sign	Channel/s	Mobile
Incident Controller				
<input type="checkbox"/> Sector <input type="checkbox"/> Crew leader Name TBA				
<input type="checkbox"/> Sector <input type="checkbox"/> Crew leader Name TBA				
<input type="checkbox"/> Sector <input type="checkbox"/> Crew leader Name TBA				
<input type="checkbox"/> Sector <input type="checkbox"/> Crew leader Name TBA				
<input type="checkbox"/> Sector <input type="checkbox"/> Crew leader Name				
Safety advisor				
Contingency communications (Describe arrangements if radio network fails)	Mobile phone. UHF 17. Range radio network.			

SAFETY

Personal Safety

Assessment (Describe what threats are present that may cause adverse effects to individuals for this activity)

This section to be used to assess specific threats that exist that could adversely affect individuals from the activity.

Threat Type	Threat (from the activity)	Consequence	Mitigation – Task/Constraint
B – Built N – Natural H – Haz Materials P - Person U - Utility	(e.g. Hazard tree)	Personal harm	(Task – Identify hazardous trees) (Task – Exclude hazardous trees) (Constraint – Burn with high soil moisture) Any <u>tasks</u> to be transferred to the 'Pre burn works order sheet.
U	Hazardous trees	Personal harm	Crew briefing.
P	Track condition and vehicle movement	Roll vehicle	Crew briefing, JSEA, Training

Crew briefing (Prior to lighting up all personnel are to be briefed using the SMEACS)	
Incidents	All incidents or near misses should be immediately reported to the IC and recorded in the Incident Log. Refer to Emergency and Incident Flow Chart. Start Incident Reporting as soon as practicable.
Escape routes (list location) refer to operational burn map	Roads back to SDR.
Safe areas (list locations) refer to operational burn map	House
Evacuation points (List location) refer to operational burn map	House

BRIEFING UNDERTAKEN

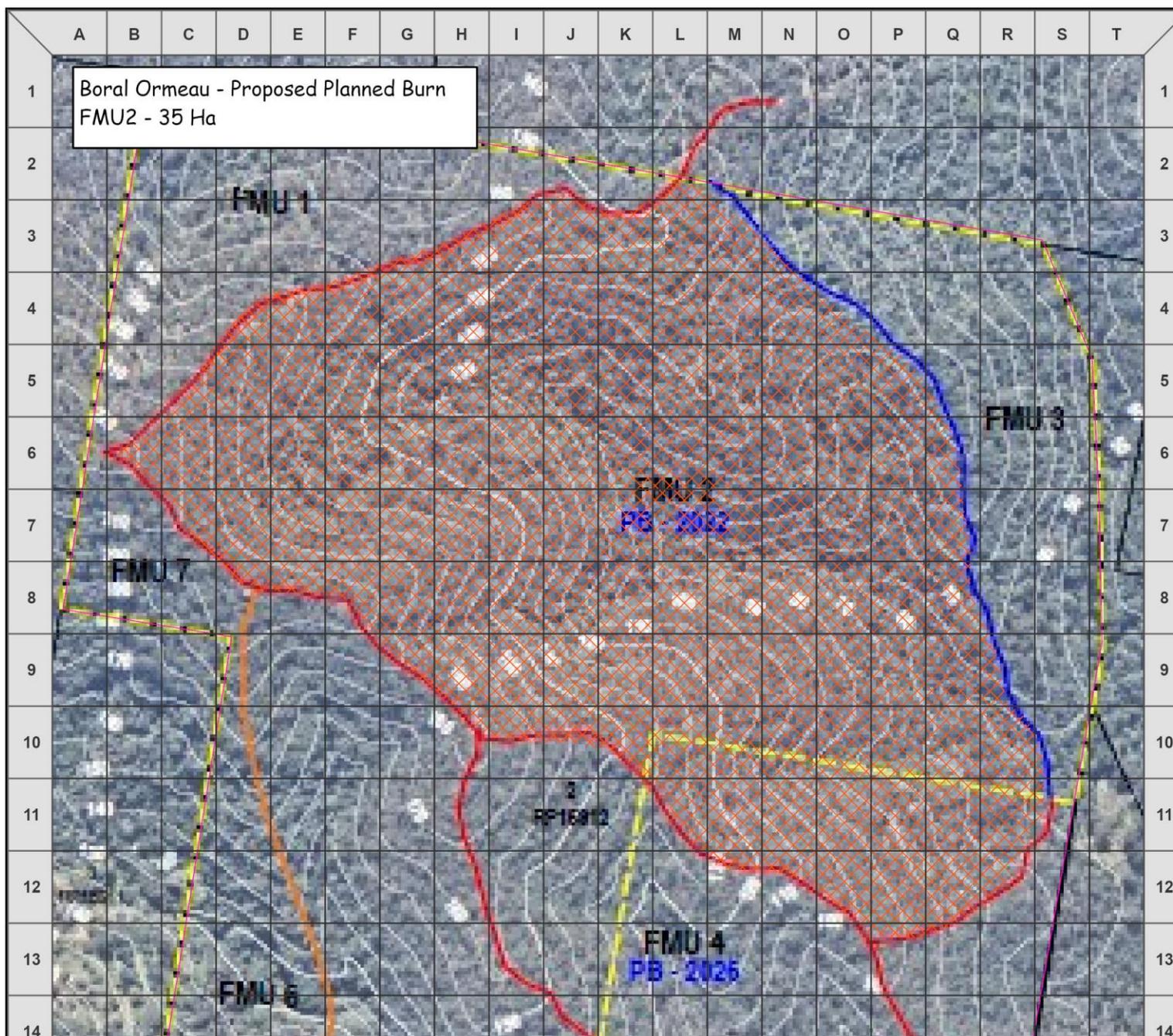
Date	Time	Incident Controller's signature (IC)

INCIDENT CONTROLLER HANDOVER BRIEFING

Date	Time	Outgoing IC signature	Incoming IC name & signature
DEBRIEFING UNDERTAKEN			
Date	Time	Incident controller's signature (IC)	

SAFETY BRIEFING – to be completed all burn days

DRAFT



Appendix F

Gold Coast City Council approval

Our reference: OPW/2022/879

Decision notice—approval (with conditions)

(Given under section 63(2) of the *Planning Act 2016*)

Date of decision notice: 22 February 2023

Applicant details

Applicant name: Boral Limited

Applicant contact details: C/- Westera Partners
PO BOX 6138
GOLD COAST MC QLD 9726

Application details

Application number: OPW/2022/879

Approval sought: Operational Works

Details of proposed development: Development permit for Operational work for change to ground level

Location details

Street address: Lot 2 Cliff Barrons Road, Ormeau Hills Qld 4208

Real property description: Lot 1 RP174509

Decision

Date of decision: 20 February 2023

Decision details: Under Delegated Authority, the Executive Coordinator for Engineering and Environmental Assessment has resolved to approve the development application in full with conditions

Referral agency(s) for the application

Not applicable – no part of the application required referral.

Conditions

The conditions that have been imposed by Council, as Assessment manager, are enclosed.

Properly made submissions

Not applicable—No part of the application required public notification.

Currency period for the approval (section 85 of the *Planning Act 2016*)

In accordance with section 85 of the *Planning Act 2016*, this approval has a currency period of two years.

Approved plans and drawings

Approved plans and drawings are attached and are identified in the conditions imposed by Council as the Assessment manager.

Appeal rights

Applicant	<p>You have appeal rights in relation to this decision. An appeal may be made against, as applicable:</p> <ul style="list-style-type: none">• the refusal of part of the development application; or• a provision of the development approval; or• if a development permit was applied for, the decision to give a preliminary approval. <p>An appeal must be started within 20 business days after this notice is given to you.</p> <p>An appeal may be made to the Planning and Environment Court or, for certain matters which are identified in section 1(2) of Schedule 1 of the <i>Planning Act 2016</i>, to a development tribunal.</p> <p>An appeal is started by lodging a notice of appeal with the registrar of the Planning and Environment Court or a development tribunal, as applicable. The notice of appeal must be in the approved form, succinctly state the grounds of the appeal and be accompanied by the required fee.</p> <p>An appellant to the Planning and Environment Court must give a copy of the notice of appeal, within 10 business days after the appeal is started, to the persons identified in section 230(3) of the <i>Planning Act 2016</i>. A person who is appealing to the Planning and Environment Court must comply with the rules of the court that apply to the appeal.</p> <p>An extract of Chapter 6, Part 1 and Schedule 1 of the <i>Planning Act 2016</i> is attached to this notice, which sets out further information about the appeal rights.</p>
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For further information please contact Ruwangi Samarasekera, Civil Engineer on p: 07 5582 8866 or via email mail@goldcoast.qld.gov.au who will be pleased to assist.

AUTHORISED BY



Sam Hartley

Executive Coordinator Engineering & Environmental Assessment

For the Chief Executive Officer

Council of the City of Gold Coast

Enc:

Conditions imposed by Council as Assessment manager

Attach:

Stamped approved plans and drawings

Appeal rights extracts

Conditions imposed by Council as Assessment manager

General																																																											
1	<p>Timing</p> <p>All conditions of this development approval must be complied with at no cost to Council at all times unless otherwise stated in another condition.</p>																																																										
2	<p>Approved drawings</p> <p>Undertake and maintain the development generally in accordance with the following drawings including as amended in red by the Council:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Operational Works</th> </tr> <tr> <th style="text-align: left;">Drawing Title</th> <th style="text-align: left;">Author</th> <th style="text-align: left;">Date</th> <th style="text-align: left;">Drawing No.</th> <th style="text-align: left;">Ver</th> </tr> </thead> <tbody> <tr> <td>Cover Sheet</td> <td>Westera Partners</td> <td>19/10/22</td> <td>G21095G -01</td> <td>C</td> </tr> <tr> <td>Civil Notes and Legend</td> <td>Westera Partners</td> <td>19/10/22</td> <td>G21095G -02</td> <td>A</td> </tr> <tr> <td>Civil Site Plan</td> <td>Westera Partners</td> <td>15/11/22</td> <td>G21095C -01</td> <td>C</td> </tr> <tr> <td>Access Road Longitudinal Section</td> <td>Westera Partners</td> <td>19/10/22</td> <td>G21095C -02</td> <td>A</td> </tr> <tr> <td>Stormwater Culvert Section</td> <td>Westera Partners</td> <td>15/11/22</td> <td>G21095C -03</td> <td>C</td> </tr> <tr> <td>Earthworks Plan</td> <td>Westera Partners</td> <td>15/11/22</td> <td>G21095E -01</td> <td>B</td> </tr> <tr> <td>Erosion & Sediment Control Plan</td> <td>Westera Partners</td> <td>15/11/22</td> <td>G21095ESC -01</td> <td>B</td> </tr> <tr> <td>Erosion & Sediment Control Details</td> <td>Westera Partners</td> <td>June 2022</td> <td>G21095ESC -02</td> <td>-</td> </tr> <tr> <td>Erosion & Sediment Control Notes</td> <td>Westera Partners</td> <td>June 2022</td> <td>G21095ESC -03</td> <td>-</td> </tr> </tbody> </table> <p>The conditions of this approval are to be read in conjunction with the attached stamped approved drawings. Where a conflict occurs between the conditions of this approval and the stamped approved drawings, the conditions of this approval shall take precedence.</p>				Operational Works					Drawing Title	Author	Date	Drawing No.	Ver	Cover Sheet	Westera Partners	19/10/22	G21095G -01	C	Civil Notes and Legend	Westera Partners	19/10/22	G21095G -02	A	Civil Site Plan	Westera Partners	15/11/22	G21095C -01	C	Access Road Longitudinal Section	Westera Partners	19/10/22	G21095C -02	A	Stormwater Culvert Section	Westera Partners	15/11/22	G21095C -03	C	Earthworks Plan	Westera Partners	15/11/22	G21095E -01	B	Erosion & Sediment Control Plan	Westera Partners	15/11/22	G21095ESC -01	B	Erosion & Sediment Control Details	Westera Partners	June 2022	G21095ESC -02	-	Erosion & Sediment Control Notes	Westera Partners	June 2022	G21095ESC -03	-
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3	<p>When the approval lapses if works is not completed</p> <p>This approval will lapse if the works is not completed by 20 February 2026 in accordance with section 88 of the Planning Act 2016.</p>																																																										
Environmental and Landscaping																																																											
4	<p>Vegetation management</p> <p>Undertake works generally in accordance with an operational works approval and the Environmental significance overlay code, the Vegetation management code and City Plan Policy SC6. 8 – Environmental management plans at no cost to Council.</p>																																																										
5	<p>No damage to retained vegetation</p> <p>Ensure all other existing vegetation is retained and not disturbed or damaged during implementation of the approved works.</p>																																																										

Engineering	
6	<p>Rectification of Council's infrastructure</p> <p>Rectify any damage caused to Council infrastructure (including kerb, channelling, service pits, footpaths and water and sewer reticulation networks) prior to an 'on maintenance' inspection, at no cost to Council.</p> <p>a Maintain the rectified Council infrastructure at no cost to Council at all times.</p>
7	<p>Earthworks</p> <p>a Construct the earthworks identified in the approved drawings condition at no cost to Council in accordance with the standards and procedures in City Planning Policy SC6.11 – Land development guidelines, sections 3 Change to Ground level standards, 7 Procedures, 8.5 As-constructed requirements and 9 Specifications and 10 Standard drawings.</p> <p>b Maintain the earthworks identified above at no cost to Council at all times.</p>
Stormwater Drainage	
8	<p>Overland flow paths and hydraulic alterations</p> <p>a Leave unaltered the overland flow paths on the site, such that the characteristics of existing overland flows on other properties remain uninhibited and unchanged.</p> <p>b The development must not:</p> <ul style="list-style-type: none"> i Increase peak flow rates downstream from the site ii Increase flood levels external to the site iii Increase duration of inundation external to the site that could cause loss or damage
9	<p>Erosion and sediment control</p> <p>a. Implement the erosion, sediment and dust control measures identified in the approved drawings at no cost to Council.</p> <p>b. Undertake works generally in accordance with the operational works approval and include in particular:</p> <ul style="list-style-type: none"> i. Sediment controls must be maintained and amended as necessary to ensure that the measures implemented conform to the Construction Phase stormwater management design objectives of the State Planning Policy 2017 (Appendix 2 Table A). ii. Erosion, sediment and dust control measures must be implemented in accordance with the approved plan/drawings and the Best Practice Erosion & Sediment Control (IECA Australasia, November 2008). iii. Sediment control structures (eg. sediment fence) must be placed at the base of all materials imported on-site to mitigate any sediment runoff. iv. A perimeter bund and/or diversion drain must be constructed around the disturbed area to prevent any outside clean stormwater from mixing with polluted/contaminated stormwater. v. All polluted/contaminated water from the site, including dewatering discharge, must be treated to achieve the water quality objectives in Table 8.2.1 of the Queensland Water Quality Guidelines (DERM, September 2009) prior to discharging from the site. vi. Inspections for erosion and sediment control measures are to occur in accordance with the compliance procedures in City Planning Policy SC6.11 – Land development guidelines, section 4.5.17.1.2 – Compliance.

Construction Management

10 Certification of works

Provide Council with certificates prepared by qualified experts from the disciplines listed below, confirming as follows:

Operational Works				
Certified document	Certification date	Plan/ Drawing	Expert discipline	Requesting Council Section
Appendix A Certification from the Land Development Guidelines	Upon practical completion of works.	N/A	Registered Professional Engineer Queensland (RPEQ)	Contributed Assets

The certification is to confirm:

- All works have been undertaken generally in accordance with the approval.

Geotechnical				
Certified document	Certification date	Plan/ Drawing	Expert discipline	Requesting Council Section
Geotech certification for stability	Upon practical completion of works.	N/A	Registered Professional Engineer Queensland (RPEQ)	Contributed Assets

The certification is to confirm:

- Cut/fill batters and retaining structures associated with the proposed development have been adequately designed based on existing geotechnical conditions of the site taking into account all predicted surcharge loadings; and they will achieve a long-term factor of safety greater than or equal to 1.5 against geotechnical failure.
- Constructed cut/fill batters and retaining structures on the site have achieved adequate stability with a long-term factor of safety greater than or equal to 1.5 against geotechnical failure.

11 Availability of approved plans, drawings and reports

Retain a copy of this decision notice and stamped approved plans, drawings and reports on site at all times during construction. Any contractors undertaking approved work (including tree removal or relocations) must be directly provided with a copy of these conditions and instructed as to the need to comply with them.

12 Transport of soil/fill/excavated material

During the transportation of soil and other fill/excavated material:

- All trucks hauling soil, or fill/excavated material must have their loads secure and covered.
- Any spillage that falls from the trucks or their wheels must be collected and removed from the site and streets along which the trucks travel on a daily basis.

	c Prior to vehicles exiting the site, measures must be taken to remove the soil from the wheels of the vehicles to prevent soil and mud being deposited on public roads.						
13	<p>Earthworks as-constructed data</p> <p>Prepare and submit for approval as-constructed data for the constructed earthworks generally in accordance with City Plan Policy SC6.11 – Land development guidelines, section 8.5 prior to request for practical completion of the works/ prior to acceptance of On maintenance.</p>						
14	<p>Pre-start inspection</p> <p>Arrange a pre-start inspection prior to the commencement of works to complete the requirements identified in SC.6.11 City Plan Policy – Land development guidelines for the following:</p> <table border="1"> <thead> <tr> <th>Purpose</th> <th>Council contact</th> </tr> </thead> <tbody> <tr> <td>Review and discuss Operational works – change to ground level approval</td> <td>Contributed Assets (07) 5582 9034</td> </tr> </tbody> </table> <p>Copies of applicable material including this decision notice and stamped approved plans, drawings and reports are to be available for the meeting and kept on site during construction.</p>	Purpose	Council contact	Review and discuss Operational works – change to ground level approval	Contributed Assets (07) 5582 9034		
Purpose	Council contact						
Review and discuss Operational works – change to ground level approval	Contributed Assets (07) 5582 9034						
15	<p>Hold point inspection</p> <p>Arrange a hold point inspection to complete the requirements identified in SC.6.11 City Plan Policy – Land development guidelines/Landscape work code of the City Plan for the following:</p> <table border="1"> <thead> <tr> <th>Purpose</th> <th>Hold Point</th> <th>Council contact</th> </tr> </thead> <tbody> <tr> <td>Confirm works have been undertaken in accordance with the operational works approval and associated hold point requirements identified in SC6.11 City Plan Policy – Land development guidelines</td> <td>As indicated in SC6.11 City Plan Policy – Land development guidelines</td> <td>Contributed Assets (07) 5582 9034</td> </tr> </tbody> </table> <p>Copies of applicable material including this decision notice and stamped approved plans, drawings and reports are to be available for the meeting and kept on site during construction.</p>	Purpose	Hold Point	Council contact	Confirm works have been undertaken in accordance with the operational works approval and associated hold point requirements identified in SC6.11 City Plan Policy – Land development guidelines	As indicated in SC6.11 City Plan Policy – Land development guidelines	Contributed Assets (07) 5582 9034
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16	<p>Practical Completion</p> <p>Arrange a practical completion meeting to complete the requirements identified in City Plan Policy SC6.11 – Land development guidelines, section 7.3.1 City civil engineering inspections for the following:</p> <table border="1"> <thead> <tr> <th>Purpose</th> <th>Hold Point</th> <th>Council contact</th> </tr> </thead> <tbody> <tr> <td>Confirm completion of works have been undertaken in accordance with this approval</td> <td>Prior to receiving a practical completion letter</td> <td>Contributed Assets 07 5582 9034</td> </tr> </tbody> </table> <p>Copies of applicable material including this decision notice and stamped approved plans, drawings and reports are to be available for the meeting and kept on site during construction.</p>	Purpose	Hold Point	Council contact	Confirm completion of works have been undertaken in accordance with this approval	Prior to receiving a practical completion letter	Contributed Assets 07 5582 9034
Purpose	Hold Point	Council contact					
Confirm completion of works have been undertaken in accordance with this approval	Prior to receiving a practical completion letter	Contributed Assets 07 5582 9034					
17	<p>Bond</p> <p>a. Provide security to Council in the amount of \$5000 to secure:</p> <ul style="list-style-type: none"> i. Compliance with all conditions of this approval. <p>b. Provide the security prior to the commencement of works. Council will hold the security until:</p> <ul style="list-style-type: none"> i. Works are acceptable to proceed to on maintenance/practical completion. 						

Advice Notes			
A.	<p>Further development permits/compliance permits</p> <p>Further development permits and/or compliance permits from Council are required to facilitate the development of the approved works identified in this decision notice. These include:</p> <table border="1" style="width: 100%;"> <tr> <td>Environmental Assessment</td> </tr> <tr> <td>- Operational Works Approval for vegetation clearing</td> </tr> </table> <p>A copy of this decision notice and accompanying stamped drawings/plans must be submitted with any subsequent application identified above.</p>	Environmental Assessment	- Operational Works Approval for vegetation clearing
Environmental Assessment			
- Operational Works Approval for vegetation clearing			
B.	<p>Compliance with conditions</p> <p>Once this development approval takes effect, the conditions attach to the land and are applicable in perpetuity. It is a development offence to contravene a development approval, including any of its conditions.</p>		
C.	<p>Indigenous cultural heritage legislation and duty of care requirement</p> <p>The <i>Aboriginal Cultural Heritage Act 2003</i> ('ACHA') is administered by the Department of Aboriginal and Torres Strait Islander and Multicultural Affairs (DATSIMA). The ACHA establishes a duty of care to take all reasonable and practicable measures to ensure any activity does not harm Aboriginal cultural heritage. This duty of care:</p> <ol style="list-style-type: none"> a Is not negated by the issuing of this development approval; b Applies on all land and water, including freehold land; c Lies with the person or entity conducting an activity; and d If breached, is subject to criminal offence penalties. <p>Those proposing an activity involving surface disturbance beyond that which has already occurred at the proposed site must observe this duty of care.</p> <p>Details of how to fulfil this duty of care are outlined in the duty of care guidelines gazetted with the ACHA.</p> <p>The applicant should contact DATSIMA's Cultural Heritage Coordination Unit on 07 3405 3050 for further information on the responsibilities of developers under the ACHA.</p>		
D.	<p>Encroachment of works</p> <p>If any operational works, the subject of this approval encroaches on adjoining land, a letter from the adjoining owner must be submitted to Council consenting to the carrying out of these works.</p>		
E.	<p>Applicant responsibilities</p> <p>The applicant is responsible for securing all necessary approvals and tenure, providing statutory notifications and complying with all relevant laws.</p> <p>Nothing in this decision notice alleviates the need for the applicant to comply with all relevant local, State and Commonwealth laws and to ensure appropriate tenure arrangements have been made where the use of/reliance upon land other than that owned by the applicant is involved. Without limiting this obligation, the applicant is responsible for:</p> <ol style="list-style-type: none"> a Obtaining all other/further necessary approvals, licences, permits, resource entitlements etc by whatever name called required by law before the development the subject of this approval can be lawfully commenced and to carry out the activity for its duration; b Providing any notifications required by law (by way of example only, to notify the administering authority pursuant to the <i>Environment Protection Act 1994</i> of environmental harm being caused/threatened by the activity, and upon becoming aware the premises is being used for a 'notifiable activity'); c Securing tenure/permission from the relevant owner to use private or public land not owned by the applicant (including for access required by conditions of approval); 		

	<p>d Ensuring the correcting siting of structures on the land. An identification survey demonstrating correct siting and setbacks of structures may be requested of the applicant to ensure compliance with this decision notice and applicable codes;</p> <p>e Providing Council with proof of payment of the Portable Long Service Leave building construction levy (or proof of appropriate exemption) where the value of the Operational Works exceed \$150,000. Acceptable proof of payment is a Q.Leave –Notification and Payment Form approved by the Authority. Proof of payment must be provided before Council can issue a development permit for the Operational works. This is a requirement of section 77(1) of the Building and Construction Industry (Portable Long Service Leave) Act 1991; and</p> <p>f Making payment of any outstanding Council rates and charges applicable to the development site prior to the lodgement of subdivision plans.</p>
F.	<p>Water usage</p> <p>The use of potable water is not permitted in activities associated with road and pavement construction, the compaction of fill material or dust suppression. The use of recycled water is encouraged, especially where other alternative sources do not exist. Where recycled water is proposed to be used, contact the Water & Waste Water Recycled Water Management Team. More information is available for viewing on Council's website http://www.goldcoast.qld.gov.au/environment/recycled-water-for-industry-7900.html</p>
G.	<p>Fire ant control</p> <p>Northern suburbs of the Gold Coast are within Fire Ant Biosecurity zone 2 and must remain vigilant for the presence of fire ants. Under the Biosecurity Act 2014 individuals and organisations whose activities involve the movement or storage of fire ant carriers have a general biosecurity obligation to take all reasonable steps to ensure they do not spread fire ants. Movement of a fire ant carrier from within the fire ant biosecurity zone may need a biosecurity instrument permit. More information is available on the Department of Agriculture and Fisheries website www.daf.qld.gov.au/plants/weeds-pest-animals-ants/invasive-ants/fire-ants.</p>
H.	<p>Listing of Koala under EPBC Act</p> <p>Koala populations in South East Queensland are listed under the Environment Protection and Biodiversity Conservation Act 1999 (<i>EPBC Act</i>) as a matter of national significance. All necessary approvals must be obtained prior to any works commencing on the site.</p>
I.	<p>Riverine Protection Permit</p> <p>A Riverine Protection Permit under the Water Act 2000 may be required prior to any works commencing in the watercourse traversing / adjoining the site.</p>
J.	<p>Species Management Program</p> <p>Where an animal breeding place has been identified and activities will tamper with the breeding place in order to complete the scope of works, a Species Management Program (SMP) is required.</p> <p>Further advice is found on: https://environment.des.qld.gov.au/licences-permits/plants-animals/species-management-program/</p>

PROPOSED ACCESS ROAD AND STORMWATER UPGRADE

LOT 1 RP174509

68 CLIFF BARRONS ROAD, ORMEAU HILLS

FOR

BORAL LIMITED

INDEX OF DRAWINGS

GENERAL

G21095G-01 COVER SHEET
G21095G-02 CIVIL NOTES AND LEGEND

CIVIL

G21095C-01 CIVIL SITE PLAN
G21095C-02 ACCESS ROAD LONGITUDINAL SECTION
G21095C-03 STORMWATER CULVERT SECTION
G21095C-04 HEADWALL ARRANGEMENT DETAILS
G21095C-05 HEADWALL STRUCTURAL DETAILS

EARTHWORKS

G21095E-01 EARTHWORKS PLAN

EROSION & SEDIMENT CONTROL

G21095ESC-01 EROSION & SEDIMENT CONTROL PLAN
G21095ESC-02 EROSION & SEDIMENT CONTROL DETAILS
G21095ESC-03 EROSION & SEDIMENT CONTROL NOTES



LOCALITY PLAN
NOT TO SCALE

LOCATION OF PROPOSED WORKS

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL
Application No. OPW/2022/879
Dated: 20 February 2023
Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

Approval is for change to ground level only.

		DOCUMENT CONTROL	APPROVED	SUNSHINE COAST Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5466 5857 E: sunshinecoast@westerapartners.com.au		GOLD COAST Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1530 E: goldcoast@westerapartners.com.au		SURVEYOR SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744		DATUM AHD		PROJECT BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		DRAWING STATUS FOR APPROVAL		
		DESIGNED B.J.M.		BRISBANE Level 2 Limestone, 33 Longland St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		NORTHERN NSW Suite 24 Level 2, 11-13 Pearl St, Kingsmill T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THEM FOR WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		TITLE COVER SHEET		DRAWING NUMBER G21-095-G01				
C		19.10.2022		SHEETS C04 & C05 REMOVED FROM SET	www.westerapartners.com.au ABN 52 097 417 975						CLIENT BORAL LIMITED		SHEET NUMBER 01 of 2		REVISION C	
B		8.07.2022		LOCALITY PLAN UPDATED TO SHOW LOCATION OF WORKS												
A		13.06.2022	EARTHWORKS & EROSION DRAWINGS ADDED													
No.	DATE	REVISIONS		FILE NAME	COVERSHEET.DWG											

GENERAL NOTES

- G1 WESTERA PARTNERS HAS LIMITED CONTROL OR INPUT TO LOCAL GOVERNMENT OR OTHER LEGISLATED APPROVALS UNLESS SPECIFICALLY ENGAGED BY ITS CLIENT. ANY CHANGES TO APPROVAL REQUIREMENTS (INCLUDING ORDERS FOR SUSPENSION OF WORKS ETC) SHOULD BE COMMUNICATED TO WESTERA PARTNERS AND ALL OTHER RELEVANT DESIGNERS TO ALLOW ASSESSMENT OF POTENTIAL RISKS AND ENSURE DESIGN AND SAFETY COMPLIANCE.
- G2 ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LOCAL AUTHORITIES STANDARD DRAWINGS & SPECIFICATIONS AND COMPLETED TO THE SATISFACTION OF THE SUPERINTENDENT AND LOCAL AUTHORITY.
- G3 UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- G4 PRIOR TO THE COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR MUST LOCATE ALL EXISTING SERVICES AND PROMPTLY PROVIDE THE LOCATION DATA TO THE DESIGN ENGINEER TO ASSESS IMPACTS ON THE DESIGN.
- G7 THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING SUB-SOIL TESTS OF THE SUB-GRADE MATERIAL.
- G9 ALL U.P.V.C. STORMWATER DRAINAGE PIPES ARE TO BE CLASS S18 AND ALL R.C. AND F.R.C. PIPES ARE TO BE CLASS 3 RUBBER RING JOINTED UP TO AND INCLUDING 600 DIA. PIPES OVER 600 DIA. ARE TO BE CLASS 3 AND ARE TO HAVE AN EXTERNAL RUBBER BAND JOINT GROUTED INTERNALLY.
- G11 ALL "AS CONSTRUCTED" INFORMATION IS TO BE RECORDED AS REQUIRED BY THE LOCAL AUTHORITY AND SUBMITTED TO THE SUPERINTENDENT IMMEDIATELY AFTER COMPLETION OF THE WORKS.

EARTHWORKS NOTES

- EW1 IN CASE OF DOUBT - ASK!
- EW2 ALL LEVELS TO AHD, DIMENSIONS IN METERS U.N.O.
- EW3 ALL LIAISON WITH LOCAL, STATE & STATUTORY AUTHORITIES IS THE CONTRACTOR'S RESPONSIBILITY.
- EW4 THE LOCATION OF EXISTING SERVICES IS FOR CONTRACTOR'S INFORMATION ONLY, THE LOCATION OF SERVICES WILL BE CONFIRMED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.
- EW5 ANY DAMAGE CAUSED TO THE EXISTING SERVICE WILL BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.
- EW6 EARTHWORK PROCEDURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH AS 3798 - 2007 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
- EW7 EARTHWORKS OPERATIONS ARE TO BE CARRIED OUT IN GENERAL ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- EW8 WORKS NOT SPECIFICALLY REFERRED TO, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL DRAWINGS AND SPECIFICATIONS OF THE LOCAL AUTHORITY (GOLD COAST CITY COUNCIL).
- EW9 THE CONTRACTOR IS TO ALLOW FOR ALL FEES AND HAULAGE COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL FROM THE SITE.
- EW10 ALL COSTS ASSOCIATED WITH NOISE AND DUST SUPPRESSION FOR SITE WORKS ARE DEEMED THE CONTRACTOR'S RESPONSIBILITY.
- EW11 COMPACTION STANDARDS
- MINIMUM RELATIVE COMPACTIONS TO AS 3798 TABLE 5.1 (REFER BELOW)

ITEM	APPLICATION	MINIMUM RELATIVE COMPACTION, %	
		MINIMUM DENSITY RATIO (COHESIVE SOILS) (SEE NOTE 1*)	MINIMUM DENSITY INDEX (COHESIONLESS SOILS) (SEE NOTE 2*)
1	RESIDENTIAL - LOT FILL, HOUSE SITES	95 std (SEE NOTE 3*)	65
2	COMMERCIAL - FILLS TO SUPPORT MINOR LOADINGS, INCLUDING FLOOR LANDINGS OF UP TO 20 kPa AND ISOLATED PAD OR STRIP FOOTINGS TO 100 kPa	98 std (SEE NOTE 4*)	70
3	PAVEMENTS (SEE NOTE 5*)		
	(a) FILL TO SUPPORT PAVEMENTS	95 std	65
	(b) SUBGRADE (TO DEPTH OF 0.3m)	98 std	80
	(c) SUB-BASE COURSES	95 mod	NOT USUALLY APPLICABLE
	(d) BASE COURSE	98 mod	NOT USUALLY APPLICABLE
	- HEAVILY LOADED	95 mod	NOT USUALLY APPLICABLE
	- OTHER	(SEE NOTE 5*)	NOT USUALLY APPLICABLE

*REFER TO AS 3798 FOR TABLE NOTES.
- 'MODIFIED' TO AS 1289 TEST 5.2.1.
- 'STANDARD' TO AS 1289 TEST 5.1.1.

- EW12 PRIOR TO COMMENCEMENT OF WORKS THE CONTRACTOR WILL PROVIDE SCOUR AND EROSION PROTECTION INCLUDING PROVISION OF SILT TRAPS AND FENCES TO MINIMISE DEPOSITION OF MATERIAL DOWNSTREAM OF THE PROPERTY.
- EW13 NO BLASTING WILL BE PERMITTED.
- EW14 THE LOCATION OF THE SITE SHEDS, SITE OFFICE AND AMENITIES BUILDING WILL BE LOCATED TO SUIT TEMPORARY UTILITY SERVICES OR AS AGREED WITH THE MANAGER.
- EW15 TESTING FREQUENCY AS 3798 - 2007 SECTION 8.0 OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
- EW16 AT COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL ARRANGE FOR AN INDEPENDENT LICENSED SURVEYOR TO CARRY OUT A "WORKS AS CONSTRUCTED" SURVEY AND SUBMIT THE DETAIL PLAN TO THE MANAGER.
- EW17 THE LOCATION OF TEMPORARY STOCKPILES DURING CONSTRUCTION IS TO BE AGREED WITH THE MANAGER.

CONCRETE NOTES

- C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CONCRETE STRUCTURES CODE AND THE REFERENCED STANDARDS THEREIN.
- C2 THE CONCRETE STRENGTH GRADE AND THE COVER TO REINFORCEMENT FOR THE VARIOUS CONCRETE ELEMENTS SHALL BE AS LISTED BELOW:
- CLIMATE ZONE: **TROPICAL** **TEMPERATE** **AND**
- LOCATION: **COASTAL** **NEAR COASTAL** **INLAND**

ELEMENT	EXPOSURE CLASSIFICATION	STRENGTH GRADE	MINIMUM COVER
MANHOLES	B1	N32	40
FIELD INLET PITS	B1	N32	40
DRIVEWAY	B1	N32	40
KERB/CHANNEL	B1	N32	-
FOOTPATHS	B1	N32	40

- C3 CONCRETE TO HAVE A MAXIMUM AGGREGATE SIZE OF 20mm WITH 80mm MAXIMUM SLUMP, A WATER/CEMENT RATIO OF NOT GREATER THAN 0.65 AND A MAXIMUM FINAL BASIC DRYING SHRINKAGE STRAIN OF 800 x 10⁻⁶ UNLESS APPROVED OTHERWISE.
- C4 NO ADDITIVES SHALL BE ADDED OR APPLIED TO THE CONCRETE MIX WITHOUT THE APPROVAL OF THE ENGINEER.
- C5 THE MAXIMUM PERMISSIBLE TRANSPORT TIME FOR CONCRETE BETWEEN BATCHING AND PLACEMENT ON SITE SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

AMBIENT AIR TEMPERATURE	MAX. BATCHING TO PLACEMENT TIME
10° - 24°C	120 MINUTES
25° - 27°C	90 MINUTES
28° - 30°C	60 MINUTES
31° - 33°C	45 MINUTES
34° - 36°C	30 MINUTES
37°C+	NO PLACEMENT OF CONCRETE UNLESS CHILLED WATER OR ICE IN MIX

- C6 ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. VIBRATORS SHALL NOT BE USED TO SPREAD CONCRETE.
- C7 ALL CONCRETE SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH AS1379 ADOPTING THE PROJECT ASSESSMENT METHOD FOR COMPRESSIVE STRENGTH AND SLUMP COMPLIANCE. THE RESULTS OF ALL TESTS SHALL BE PROMPTLY SUBMITTED TO THE ENGINEER FOR REVIEW.
- C8 WHEN THE AIR TEMPERATURE EXCEEDS 30°C, ALPHATIC ALCOHOL SHALL BE APPLIED TO THE CONCRETE SURFACE OF SLABS IMMEDIATELY AFTER THE INITIAL SCREED AND AGAIN AFTER BULL FLOATING.
- C9 CURING OF ALL CONCRETE SURFACES SHALL COMMENCE IMMEDIATELY AFTER COMPLETING CONCRETE FINISHING AND SHALL CONTINUE FOR 7 DAYS. CONTRACTOR TO CONFIRM METHOD OF CURING WITH ENGINEER PRIOR TO USE.
- C10 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C11 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS, IF ANY.
- C12 NO HOLES, CHASES OR EMBEDDED ITEMS OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER. CONDUITS, PIPES ETC. SHALL NOT BE PLACED IN THE COVER THICKNESS OF THE CONCRETE.
- C13 WHERE SERVICE PIPES PENETRATE CONCRETE ELEMENTS, PROVISION SHOULD BE MADE TO ALLOW FOR MOVEMENT OF THE ELEMENT.
- C14 FORMWORK SHALL BE DESIGNED, CONSTRUCTED AND STRIPPED IN ACCORDANCE WITH AS3610 FORMWORK CODE, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- C15 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION OR SCALE.
- C16 ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION ON PLASTIC BAR CHAIRS, GENERALLY AT NOT GREATER THAN 800mm CENTRES IN BOTH DIRECTIONS.
- C17 WELDING AND HEATING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT APPROVAL OF THE ENGINEER.
- C18 ALL STEEL REINFORCEMENT IN CONCRETE ELEMENTS SHALL BE INSPECTED BY THE ENGINEER AND PASSED PRIOR TO POURING OF ANY CONCRETE.
- C19 LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER.
- C20 SLAB FABRIC SHALL BE LAPPED ONE FULL PANEL OF FABRIC PLUS 50mm SO THAT THE TWO OUTERMOST TRANSVERSE WIRES OF ONE SHEET OVERLAP THE TWO OUTERMOST TRANSVERSE WIRES OF THE SHEET BEING LAPPED BY 50mm.
- C21 BAR REINFORCEMENT SHALL BE LAPPED IN ACCORDANCE WITH THE FOLLOWING TABLE.

TYPICAL BAR REINFORCEMENT LAP LENGTHS		
BAR	LAP LENGTH UNO	HORIZONTAL BARS WITH GREATER THAN 300mm OF CONCRETE CAST BELOW THEM
N12	550	750
N16	800	1100
N20	1100	1400
N24	1250	1600
N28	1400	1800
N32	1600	2100
N36	2000	2500

WHERE LAPS ARE SHOWN ON THE DRAWINGS THE ABOVE LAP LENGTHS SHALL BE ADOPTED UNLESS NOTED OTHERWISE. WHERE BARS OF DIFFERENT DIAMETER ARE SHOWN LAPPED, ADOPT THE LAP LENGTH APPROPRIATE TO THE SMALLER DIAMETER BAR.

- C22 A VAPOUR BARRIER OF 0.2mm (200um) MINIMUM THICK POLYTHENE SHEETING SHALL BE PLACED BENEATH SLABS ON GROUND UNLESS NOTED OTHERWISE.

GENERAL

- REINFORCED CONCRETE PAVEMENT
- TURF
- STONE PITCHING
- CEMENT GROUTED STONE PITCHING
- TELECOMMUNICATION
- GAS MAIN
- ELECTRICITY OVERHEAD
- ELECTRICITY UNDERGROUND
- LIGHT POLE
- POWER POLE
- PIT (TELSTRA/ELEC)
- EDGE OF BITUMEN
- FENCE
- EXISTING SURFACE LEVEL
- FINISHED SURFACE LEVEL

STORMWATER DRAINAGE

- STORMWATER PIPE
- SAG GULLY PIT
- ON GRADE GULLY PIT
- MANHOLE
- 600 x 600 FIELD INLET
- 900 x 600 FIELD INLET
- 1050 DIA FIELD INLET
- HEADWALL
- KERB ADAPTER WITH ROOFWATER PIPE
- STORMWATER STRUCTURE LABEL

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW/2022/879

Dated: 20 February 2023

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

Approval is for change to ground level only.

LEGEND

WATER

- NEW WATER MAIN
- EXISTING WATER MAIN
- DISUSED WATER MAIN
- NEW FIRE HYDRANT
- EXISTING FIRE HYDRANT
- DISUSED FIRE HYDRANT
- NEW DUAL OUTLET FIRE HYDRANT
- EXISTING DUAL OUTLET FIRE HYDRANT
- DISUSED DUAL OUTLET FIRE HYDRANT
- NEW SWABBING FIRE HYDRANT
- EXISTING SWABBING FIRE HYDRANT
- DISUSED SWABBING FIRE HYDRANT
- NEW ISOLATION VALVE
- EXISTING ISOLATION VALVE
- DISUSED ISOLATION VALVE
- NEW SCOUR VALVE
- EXISTING SCOUR VALVE
- DISUSED SCOUR VALVE
- NEW AIR VALVE
- EXISTING AIR VALVE
- DISUSED AIR VALVE
- NEW DEAD END
- EXISTING DEAD END
- DISUSED DEAD END
- NEW TEST/CHLORINATION POINT
- EXISTING TEST/CHLORINATION POINT
- DISUSED TEST/CHLORINATION POINT
- NEW REDUCER
- EXISTING REDUCER
- DISUSED REDUCER
- NEW PIPE MATERIAL CHANGE
- EXISTING PIPE MATERIAL CHANGE
- DISUSED PIPE MATERIAL CHANGE
- NEW WATER SERVICE PRE-TAPPED TEE
- EXISTING WATER SERVICE PRE-TAPPED TEE
- DISUSED WATER SERVICE PRE-TAPPED TEE
- NEW WATER SERVICE PIPE & CONDUIT
- EXISTING WATER SERVICE PIPE & CONDUIT
- DISUSED WATER SERVICE PIPE & CONDUIT
- NEW FLOW METER
- EXISTING FLOW METER
- DISUSED FLOW METER
- NEW FLUSHING POINT
- EXISTING FLUSHING POINT
- DISUSED FLUSHING POINT

SEWERAGE

- NEW GRAVITY SEWER MAIN
- EXISTING GRAVITY SEWER MAIN
- DISUSED GRAVITY SEWER MAIN
- NEW SEWER RISING MAIN
- EXISTING SEWER RISING MAIN
- DISUSED SEWER RISING MAIN
- NEW SEWER VACUUM MAIN
- EXISTING SEWER VACUUM MAIN
- DISUSED SEWER VACUUM MAIN
- NEW MAINTENANCE HOLE & END OF LINE
- EXISTING MAINTENANCE HOLE & END OF LINE
- DISUSED MAINTENANCE HOLE & END OF LINE
- NEW END OF LINE
- EXISTING END OF LINE
- DISUSED END OF LINE
- NEW MAINTENANCE SHAFT
- EXISTING MAINTENANCE SHAFT
- DISUSED MAINTENANCE SHAFT
- NEW HORIZONTAL/VERTICAL BEND
- EXISTING HORIZONTAL/VERTICAL BEND
- DISUSED HORIZONTAL/VERTICAL BEND
- NEW COMPOUND BEND
- EXISTING COMPOUND BEND
- DISUSED COMPOUND BEND
- NEW STUB / TEMPORARY END
- EXISTING STUB / TEMPORARY END
- DISUSED STUB / TEMPORARY END
- NEW RODDING END
- EXISTING RODDING END
- DISUSED RODDING END
- NEW PROPERTY CONNECTION
- EXISTING PROPERTY CONNECTION
- DISUSED PROPERTY CONNECTION
- NEW OVERFLOW MAINTENANCE HOLE
- EXISTING OVERFLOW MAINTENANCE HOLE
- DISUSED OVERFLOW MAINTENANCE HOLE
- NEW ISOLATION VALVE
- EXISTING ISOLATION VALVE
- DISUSED ISOLATION VALVE
- NEW SCOUR VALVE AND CHAMBER
- EXISTING SCOUR VALVE AND CHAMBER
- DISUSED SCOUR VALVE AND CHAMBER
- NEW GAS RELEASE VALVE
- EXISTING GAS RELEASE VALVE
- DISUSED GAS RELEASE VALVE
- NEW FLUSHING POINT
- EXISTING FLUSHING POINT
- DISUSED FLUSHING POINT
- NEW DISCHARGE MAINTENANCE HOLE
- EXISTING DISCHARGE MAINTENANCE HOLE
- DISUSED DISCHARGE MAINTENANCE HOLE
- NEW NON-RETURN/REFLUX VALVE
- EXISTING NON-RETURN/REFLUX VALVE
- DISUSED NON-RETURN/REFLUX VALVE
- NEW VENT POLE / ODOUR CONTROL UNIT
- EXISTING VENT POLE / ODOUR CONTROL UNIT
- DISUSED VENT POLE / ODOUR CONTROL UNIT

DOCUMENT CONTROL		APPROVED	SUNSHINE COAST Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5464 5887 E: sunshincoast@westerapartners.com.au	GOLD COAST Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1530 E: goldcoast@westerapartners.com.au	SURVEYOR SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744	DATUM AHD	PROJECT LOCATION BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509	DRAWING STATUS FOR APPROVAL
DESIGNED B.J.M.			WESTERA PARTNERS STRUCTURAL + CIVIL + ENVIRONMENTAL ENGINEERS	BRISBANE Level 2 Limestone, 33 Langland St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au	NORTHERN NSW Suite 24 Level 2, 11-13 Pearl St, Kingscliff T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au	USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THEM FOR WITHOUT PERMISSION IS STRICTLY PROHIBITED. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.	TITLE CLIENT CIVIL NOTES AND LEGEND BORAL LIMITED	DRAWING NUMBER G21-095-G02
DRAWN B.J.M.								DATE APRIL 2022
CHECKED B.C.A.		FILE NAME Civil_Notes.dwg						
No.	DATE	REVISIONS						



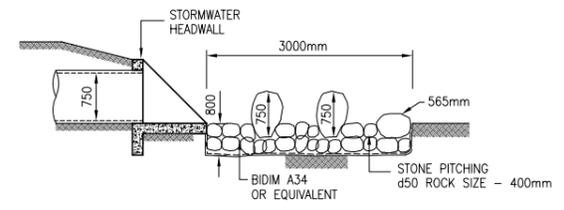
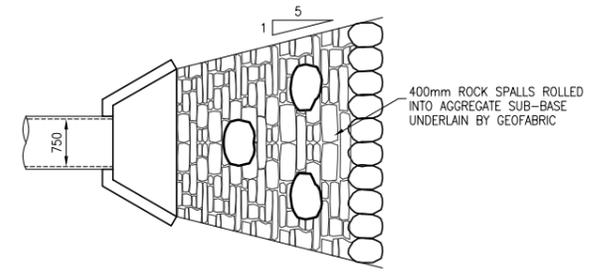
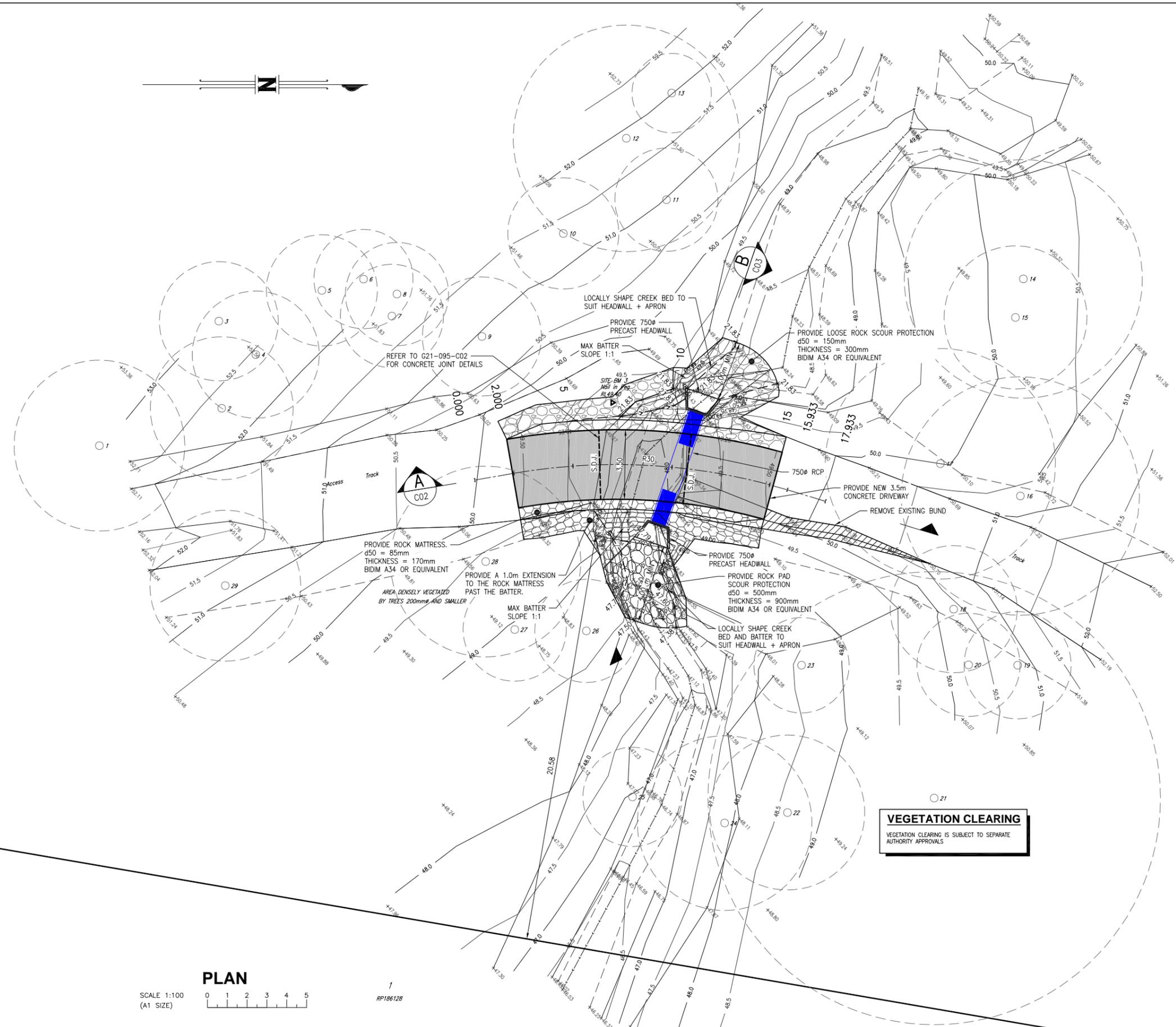
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2022/879

Dated: 20 February 2023

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

Application only endorses change to ground level. **Internal driveway is considered accepted development** as it is certified by an RPEQ. RPEQ is responsible for ensuring an necessary flood safety treatments are implemented



STONE PITCHING DETAIL
NOT TO SCALE

PLAN

SCALE 1:100 (A1 SIZE)

		DOCUMENT CONTROL		APPROVED		SUNSHINE COAST		GOLD COAST		SURVEYOR		DATUM		PROJECT		DRAWING STATUS	
		DESIGNED B.J.M.				Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5464 5467 E: sunshinecoast@westerapartners.com.au		Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744		AHD		LOCATION BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		FOR APPROVAL	
C		15.11.2022		DS HEADWALL SCOUR REVISED												DRAWING NUMBER	
B		19.10.2022		LAYOUT REVISED												G21-095-C01	
A		13.06.2022		BATTERS & SCOUR PROTECTION AMENDED		B. ARTHUR RPEQ 4394, NER 494962 For and on behalf of WESTERA PARTNERS PTY. LTD.		BRISBANE Level 2 Limestone, 33 Langland St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		NORTHERN NSW Suite 24 Level 2, 11-13 Pearl St, Kingsmill T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED! IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		TITLE CIVIL SITE PLAN		SHEET NUMBER	
No.		DATE		REVISIONS		FILE NAME Civilwks.dwg		www.westerapartners.com.au ABN 52 097 417 975		CLIENT BORAL LIMITED		01 of 05		REVISION C			

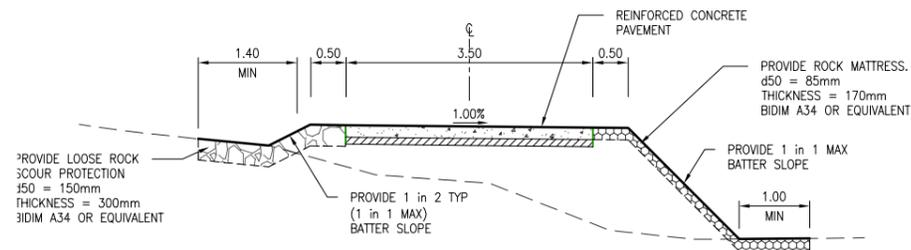
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2022/879

Dated: 20 February 2023

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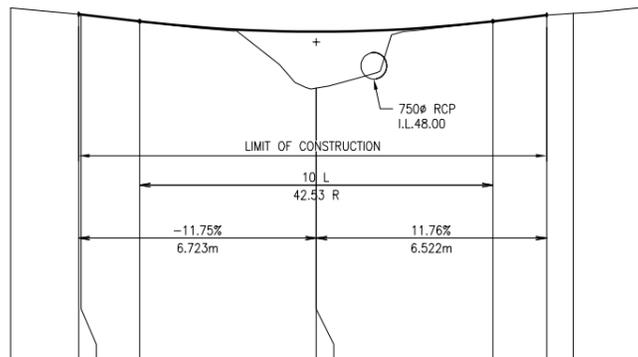
Approval is for change to ground level only.
Stormwater is private.



TYPICAL CROSS SECTION
1:50 SCALE @ A1 SIZE

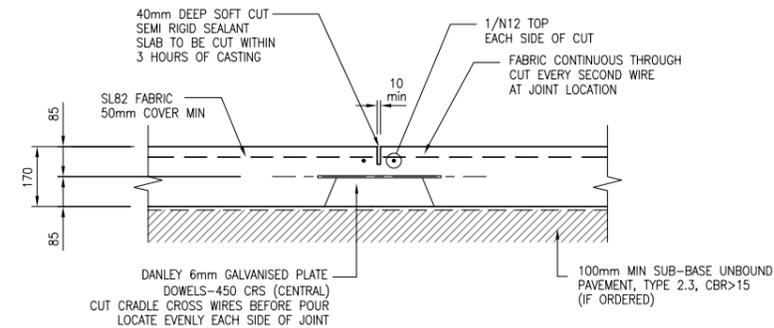
Application only endorses change to ground level. **Internal driveway** is considered accepted development as it is certified by an RPEQ. RPEQ is responsible for ensuring an necessary flood safety treatments are implemented

TP CH:3.656 RL 49.634
IP CH:8.656 RL 49.047 SAC CH:8.655 RL 49.341
TP CH:13.656 RL 49.635



DATUM R.L.40.0											
EDGE OF CONCRETE LEVELS LHS		49.863	49.863	49.863	49.358	49.358	49.652	49.795	49.795		
EDGE OF CONCRETE LEVELS RHS		49.790	49.783	49.617	49.323	49.323	49.617	49.750	49.750		
CUT / FILL		-0.000	-0.000	-0.001	1.597	1.596	-0.003	0.000	0.000		
PAVEMENT LEVELS		49.837	49.829	49.634	49.341	49.341	49.635	49.814	49.860		
NATURAL SURFACE LEVELS	50.010	49.837	49.829	49.635	47.744	47.744	49.638	49.814	49.860		
CHAINAGE		0.000	1.933	2.000	3.656	8.655	8.656	13.656	15.178	15.933	17.933

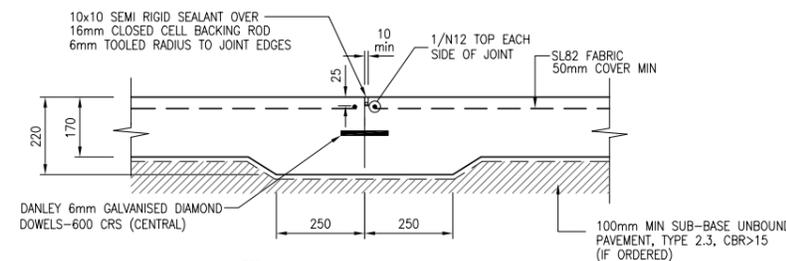
ACCESS ROAD LONGITUDINAL SECTION A
1:100 SCALE @ A1 SIZE



NOTES:
1. CONCRETE STRENGTH TO BE N32
2. THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING CBR TESTS OF THE SUBGRADE MATERIAL

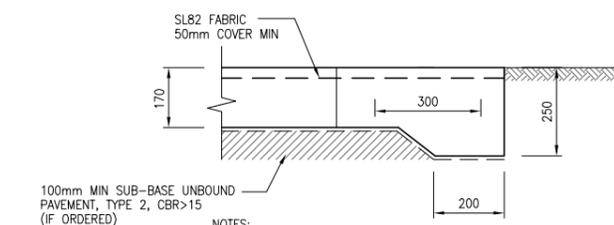
SAWN DOWELLED JOINT (S.D.J.)

MARK PROPOSED JOINT LOCATIONS CLEARLY ON EDGE FORMS PRIOR TO POURING



NOTES:
1. CONCRETE STRENGTH TO BE N32
2. THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING CBR TESTS OF THE SUBGRADE MATERIAL

POUR BREAK (P.B.)



NOTES:
1. CONCRETE STRENGTH TO BE N32
2. THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING CBR TESTS OF THE SUBGRADE MATERIAL

TYPICAL EDGE TREATMENT

SCALE 1:100

		DOCUMENT CONTROL	APPROVED	SUNSHINE COAST	GOLD COAST	SURVEYOR	DATUM	PROJECT	DRAWING STATUS	
		DESIGNED B.J.M.		Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5466 5867 E: sunshinecoast@westerapartners.com.au	Level 3 17 Walsh St, Southport T: 07 5571 1999 F: 07 5571 1330 E: goldcoast@westerapartners.com.au	SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744	AHD	BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509	FOR APPROVAL	
		DRAWN B.J.M.		B. ARTHUR RPEQ 4384, NER 494962 For and on behalf of WESTERA PARTNERS PTY. LTD.	BRISBANE	NORTHERN NSW	USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.			DRAWING NUMBER G21-095-C02
		CHECKED B.C.A.		DATE MAY 2022	33 Longland St, Newcastle T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au	Level 2, 11-13 Pearl St, Kingsmill T: 02 4674 8047 F: 02 4674 8049 E: nsw@westerapartners.com.au			ACCESS ROAD LONGITUDINAL SECTION	SHEET NUMBER 02 of 05
No.	DATE	REVISIONS		FILE NAME Road_Lsec.dwg	www.westerapartners.com.au ABN 52 097 417 975			CLIENT BORAL LIMITED	REVISION A	

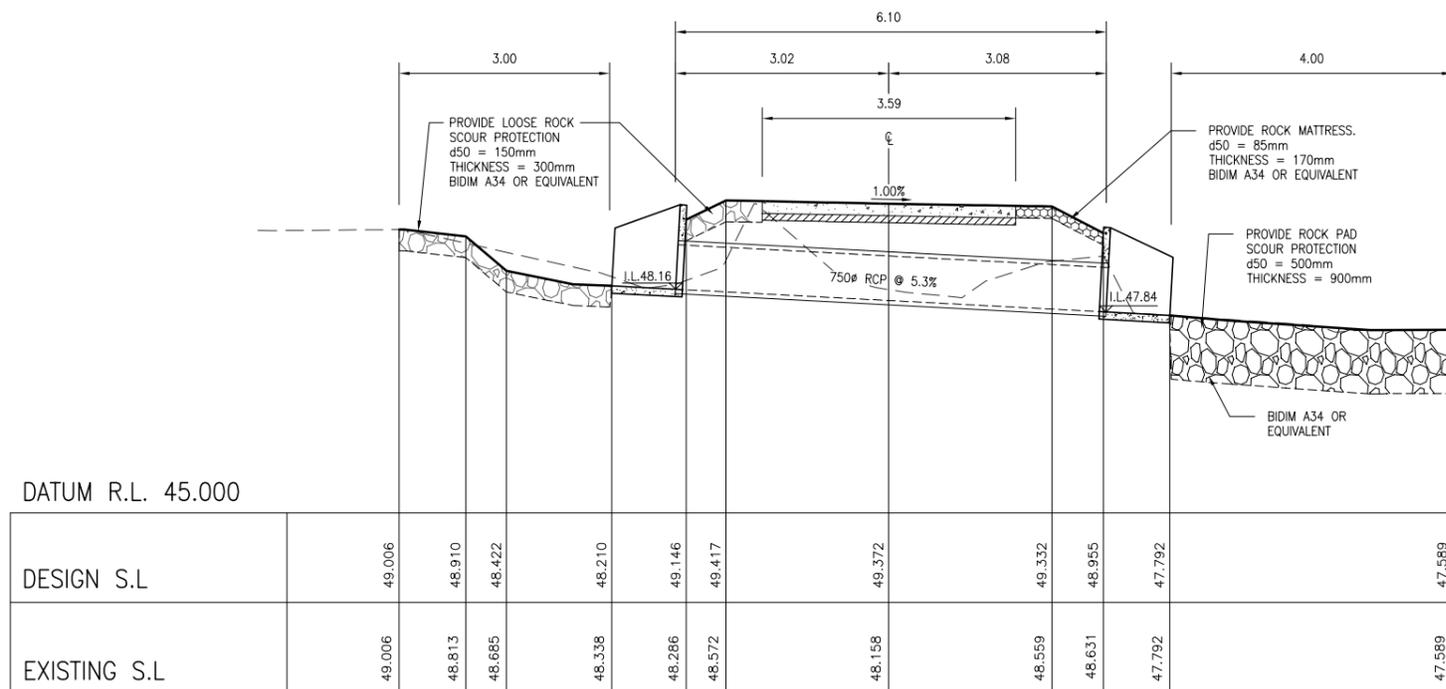
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2022/879

Dated: 20 February 2023

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

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SECTION B
1:50 SCALE @ A1 SIZE C01

		DOCUMENT CONTROL		APPROVED		SUNSHINE COAST		GOLD COAST		SURVEYOR		DATUM		PROJECT		DRAWING STATUS	
		DESIGNED B.J.M				Suite 2, Nonval Corporate Centre, 13 Nonval Ct, Maroochydore T: 07 5391 3777 F: 07 5646 5887 E: sunshinecoast@westerapartners.com.au		17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744		AHD		BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		FOR APPROVAL	
C		15.11.2022		DS HEADWALL SCOUR REVISED		DRAWN B.J.M										DRAWING NUMBER	
B		19.10.2022		CULVERT SECTION REVISED		CHECKED B.C.A										G21-095-C03	
A		13.06.2022		US & DS SCOUR PROTECTION AMENDED		DATE MAY 2022		BRISBANE		NORTHERN NSW		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		TITLE		SHEET NUMBER	
No.		DATE		REVISIONS		FILE NAME Culvert_Lsec.dwg		33 Longland St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		Suite 24 Level 2, 11-13 Pearl St, Kingscliff T: 02 4474 8047 F: 02 4634 8049 E: nsw@westerapartners.com.au		STORMWATER CULVERT SECTION		CLIENT		03 of 05	
						www.westerapartners.com.au ABN 52 097 417 975						BORAL LIMITED				REVISION C	



EARTHWORKS SUMMARY

AREA OF FILL - 31 m²
 AREA OF CUT - 90 m²
 VOLUME OF FILL - 22 m³
 VOLUME OF CUT - 23 m³

THE EARTHWORKS VOLUMES SHOWN ARE INDICATIVE NETT FIGURES ONLY BETWEEN THE EARTHWORKS SURFACE AND AN EXISTING SURFACE STRIPPED 150mm AND DO NOT ALLOW FOR DEMOLITION WORKS, UNSUITABLE MATERIAL AND VEGETATION OR COMPACTION LOSSES.

ROAD SUBGRADE LEVELS SHOWN ARE 270mm BELOW F.S.L.
 ROCK SCOUR SUBGRADE LEVELS ARE:
 - LOOSE ROCK d50 = 150mm: 300mm BELOW F.S.L.
 - LOOSE ROCK d50 = 500mm: 900mm BELOW F.S.L.
 - ROCK MATTRESS: 170mm BELOW F.S.L.

EARTHWORK LEVELS MAY BE ADJUSTED TO SUIT FSL'S AND CONCRETE THICKNESS BASED ON STRUCTURAL DESIGN AS APPROVED BY SUPERINTENDENT.

AREA OF FILL -
 AREA OF CUT -

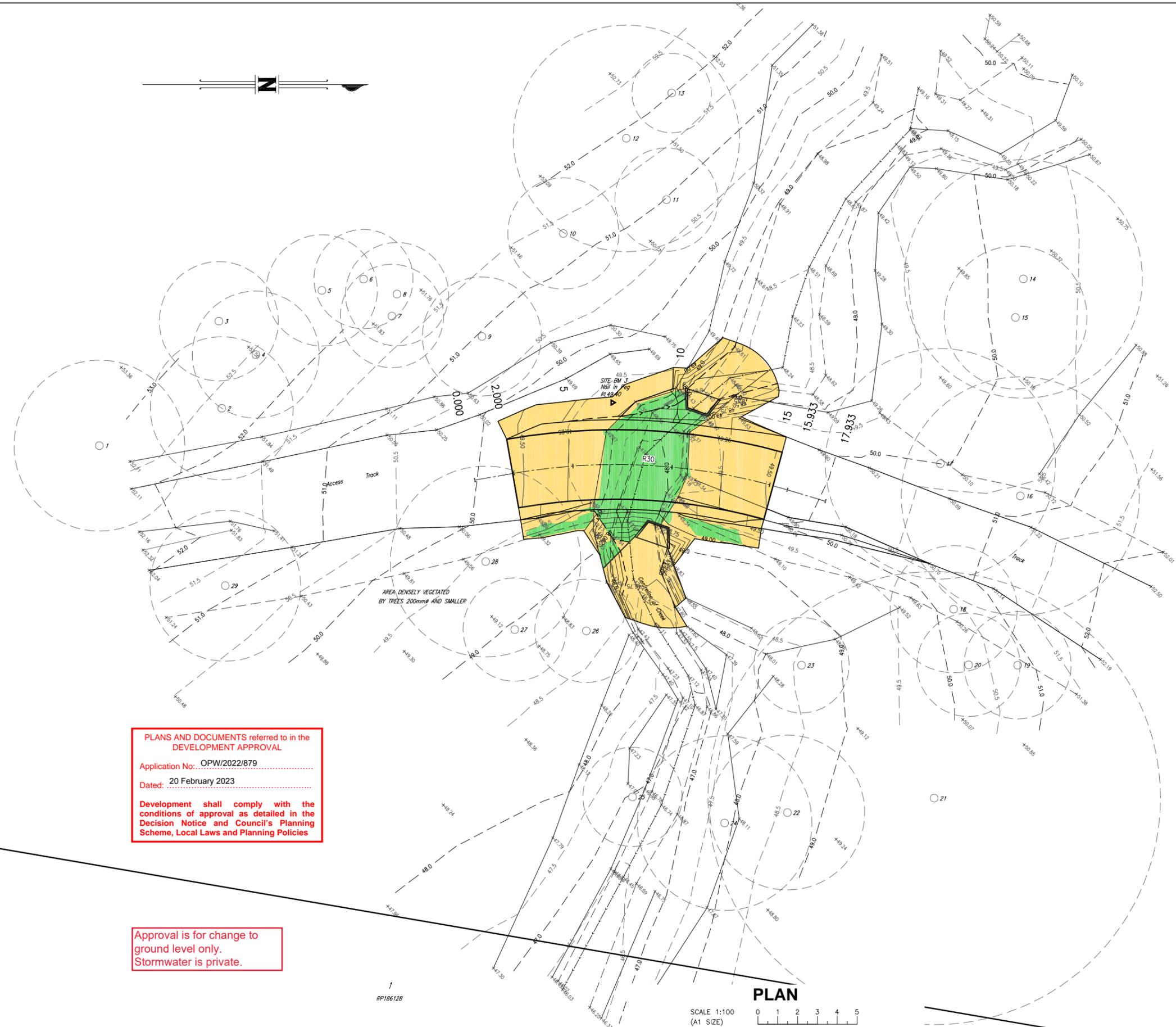
EARTHWORKS NOTES

- EW1 IN CASE OF DOUBT - ASK!
- EW2 ALL LEVELS TO AHD, DIMENSIONS IN METERS U.N.O.
- EW3 ALL LIAISON WITH LOCAL, STATE & STATUTORY AUTHORITIES IS THE CONTRACTOR'S RESPONSIBILITY.
- EW4 THE LOCATION OF EXISTING SERVICES IS FOR CONTRACTOR'S INFORMATION ONLY, THE LOCATION OF SERVICES WILL BE CONFIRMED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.
- EW5 ANY DAMAGE CAUSED TO THE EXISTING SERVICE WILL BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.
- EW6 EARTHWORK PROCEDURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH AS 3798 - 2007 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS".
- EW7 EARTHWORKS OPERATIONS ARE TO BE CARRIED OUT IN GENERAL ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- EW8 WORKS NOT SPECIFICALLY REFERRED TO, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL DRAWINGS AND SPECIFICATIONS OF THE LOCAL AUTHORITY (GOLD COAST CITY COUNCIL).
- EW9 THE CONTRACTOR IS TO ALLOW FOR ALL FEES AND HAULAGE COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL FROM THE SITE.
- EW10 ALL COSTS ASSOCIATED WITH NOISE AND DUST SUPPRESSION FOR SITE WORKS ARE DEEMED THE CONTRACTOR'S RESPONSIBILITY.
- EW11 COMPACTION STANDARDS
 - MINIMUM RELATIVE COMPACTIONS TO AS 3798 TABLE 5.1 (REFER BELOW)

ITEM	APPLICATION	MINIMUM DENSITY RATIO (COHESIVE SOILS) (SEE NOTE 1*)	MINIMUM RELATIVE COMPACTION, % (COHESIONLESS SOILS) (SEE NOTE 2*)
1	RESIDENTIAL - LOT FILL, HOUSE SITES	95 std (SEE NOTE 3*)	65
2	COMMERCIAL - FILLS TO SUPPORT MINOR LOADINGS, INCLUDING FLOOR LANDINGS OF UP TO 20 kPa AND ISOLATED PAD OR STRIP FOOTINGS TO 100 kPa	98 std (SEE NOTE 4*)	70
3	PAVEMENTS (SEE NOTE 5*)	95 std	65
	(a) FILL TO SUPPORT PAVEMENTS	98 std	80
	(b) SUBGRADE (TO DEPTH OF 0.3m)	95 mod	NOT USUALLY APPLICABLE
	(c) SUB-BASE COURSES	95 mod	NOT USUALLY APPLICABLE
	(d) BASE COURSE	95 mod	NOT USUALLY APPLICABLE
	- HEAVY LOADED	98 mod	NOT USUALLY APPLICABLE
	- OTHER	95 mod (SEE NOTE 5*)	NOT USUALLY APPLICABLE

*REFER TO AS 3798 FOR TABLE NOTES.
 - 'MODIFIED' TO AS 1289 TEST 5.2.1.
 - 'STANDARD' TO AS 1289 TEST 5.1.1.

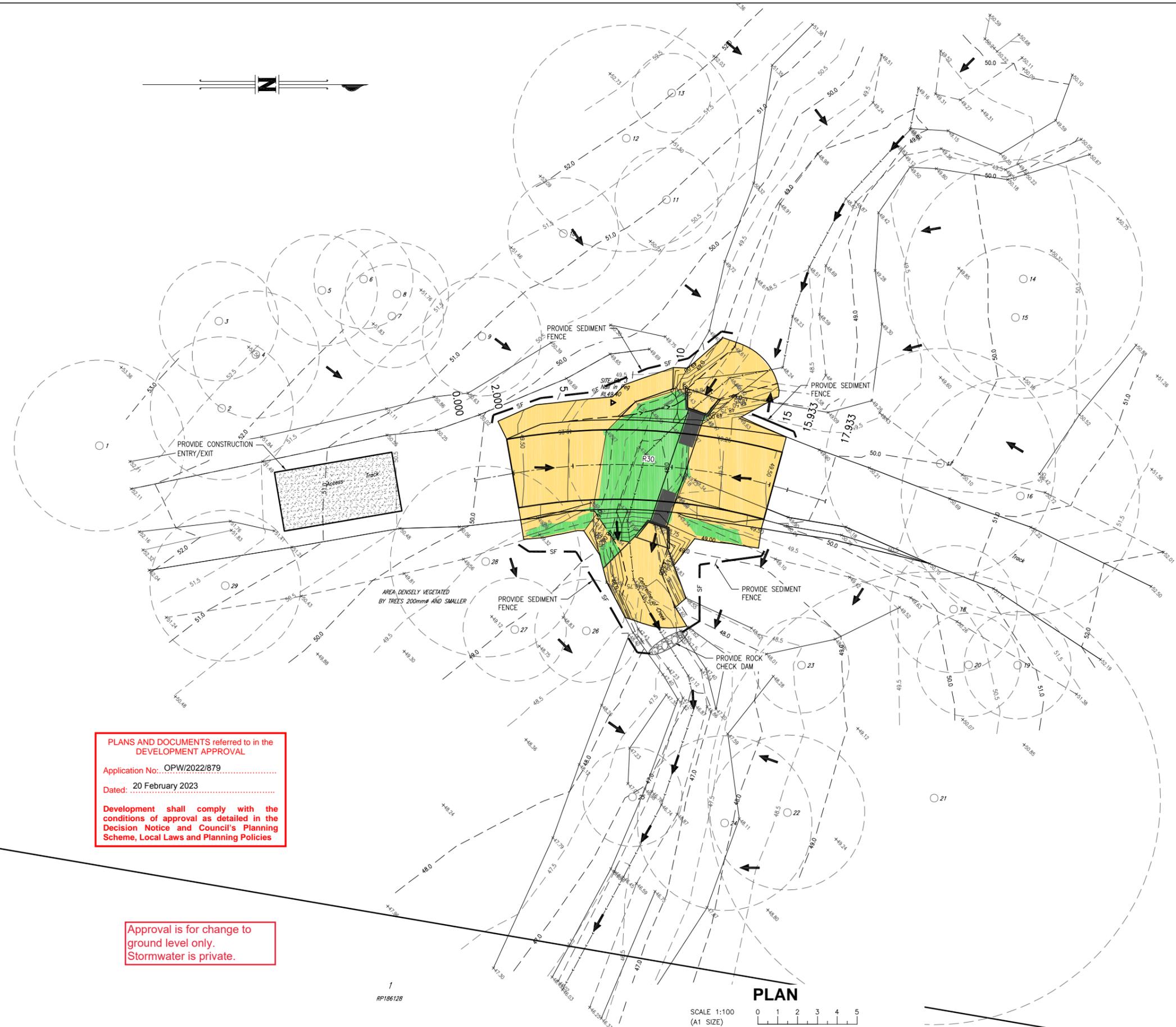
- EW12 PRIOR TO COMMENCEMENT OF WORKS THE CONTRACTOR WILL PROVIDE SCOUR AND EROSION PROTECTION INCLUDING PROVISION OF SILT TRAPS AND FENCES TO MINIMISE DEPOSITION OF MATERIAL DOWNSTREAM OF THE PROPERTY.
- EW13 NO BLASTING WILL BE PERMITTED.
- EW14 THE LOCATION OF THE SITE SHEDS, SITE OFFICE AND AMENITIES BUILDING WILL BE LOCATED TO SUIT TEMPORARY UTILITY SERVICES OR AS AGREED WITH THE MANAGER.
- EW15 TESTING FREQUENCY AS 3798 - 2007 SECTION 8.0 OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
- EW16 AT COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL ARRANGE FOR AN INDEPENDENT LICENSED SURVEYOR TO CARRY OUT A "WORKS AS CONSTRUCTED" SURVEY AND SUBMIT THE DETAIL PLAN TO THE MANAGER.
- EW17 THE LOCATION OF TEMPORARY STOCKPILES DURING CONSTRUCTION IS TO BE AGREED WITH THE MANAGER.



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL
 Application No: OPW/2022/879
 Dated: 20 February 2023
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Approval is for change to ground level only.
 Stormwater is private.

DOCUMENT CONTROL DESIGNED B.J.M. DRAWN G.G.J. CHECKED B.C.A. DATE JUNE 2022 FILE NAME Earthwks.dwg		APPROVED B. ARTHUR RPIC 4384, NER 494962 For and on behalf of WESTERA PARTNERS PTY. LTD.		 WESTERA PARTNERS STRUCTURAL + CIVIL + ENVIRONMENTAL ENGINEERS www.westerapartners.com.au ABN 52 097 417 975		SUNSHINE COAST Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5464 5067 E: sunshincoast@westerapartners.com.au		GOLD COAST Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		SURVEYOR SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744		DATUM AHD		PROJECT LOCATION BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		DRAWING STATUS FOR APPROVAL DRAWING NUMBER G21-095-E01 SHEET NUMBER 01 of 01	
REVISIONS No. DATE REVISIONS		BRISBANE Level 2 Limestone, 33 Longland St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		NORTHERN NSW Suite 24 Level 2, 11-13 Pearl St, Kingsgill T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THEM FOR WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		PROJECT TITLE EARTHWORKS PLAN		CLIENT BORAL LIMITED		REVISION B					



LEGEND	
	GEOFABRIC SCOUR PROTECTION
	AREA OF CUT MATERIAL
	AREA OF FILL MATERIAL
	BASE OF SEDIMENT BASIN
	SCOUR PROTECTION
	INLET PROTECTION
	SDB - STRAW BALE FLOW DIVERSION BANK
	DB - DIVERSION BANK
	DC - DIVERSION CHANNEL
	MB - MULCH BERM
	SF - SEDIMENT FENCE
	ROCK CHECK DAM
	CATCH DRAIN TYPE 1
	CATCH DRAIN TYPE 2
	SURFACE FLOW ARROW
	CH - CHUTE
	LEVEL SPREADER
	SD - SLOPE DRAIN
	OS - OUTLET STRUCTURE
	ON GRADE GULLY PIT
	SAG GULLY PIT
	600 x 600 FIELD INLET
	900 x 600 FIELD INLET
	1050 DIA FIELD INLET
	STORMWATER LINE
	STORMWATER HEADWALL
	STORMWATER NUMBER
	ROCK FILTER DAM
	SEDIMENT FENCE WEIR

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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Dated: 20 February 2023

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1
RP186128

PLAN

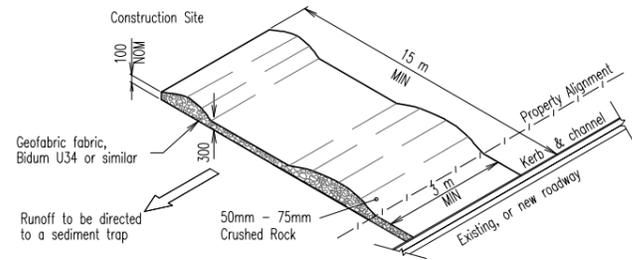


		DOCUMENT CONTROL		APPROVED		SUNSHINE COAST		GOLD COAST		SURVEYOR		DATUM		PROJECT		DRAWING STATUS	
		DESIGNED G.G.J.				Suite 2, Norval Corporate Centre, 13 Norval Ct, Maroochydore T: 07 5391 3777 F: 07 5466 5067 E: sunshinecoast@westerapartners.com.au		Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		Schlencker Surveying QLD PHONE (07) 5573 6744		AHD		BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		FOR APPROVAL	
B 15.11.2022 DS HEADWALL SCOUR REVISED		DRAWN G.G.J.				BRISBANE		NORTHERN NSW		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		TITLE		EROSION AND SEDIMENT CONTROL PLAN		DRAWING NUMBER	
A 19.10.2022 LAYOUT REVISED		CHECKED B.C.A.		B. ARTHUR RPE/C 4394, NER 494962 For and on behalf of WESTERA PARTNERS PTY. LTD.		Level 2 Limestone, 33 Longland St, Newcastle T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		Level 24 Suite 24 Level 2, 11-13 Pearl St, Kingscliff T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		CLIENT		BORAL LIMITED		SHEET NUMBER		REVISION	
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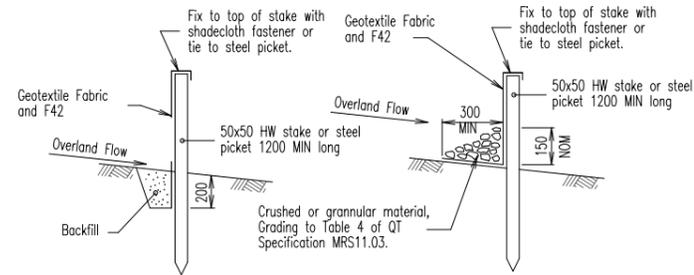
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: OPW/2022/879
 Dated: 20 February 2023

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

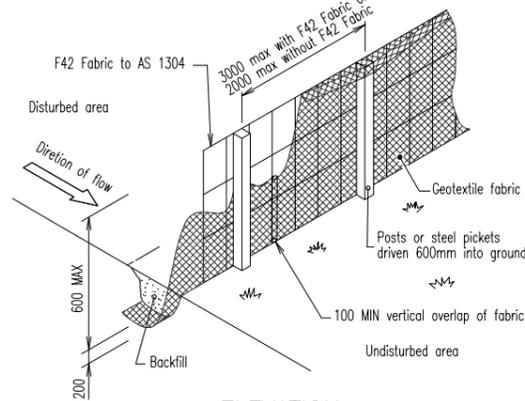


CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP



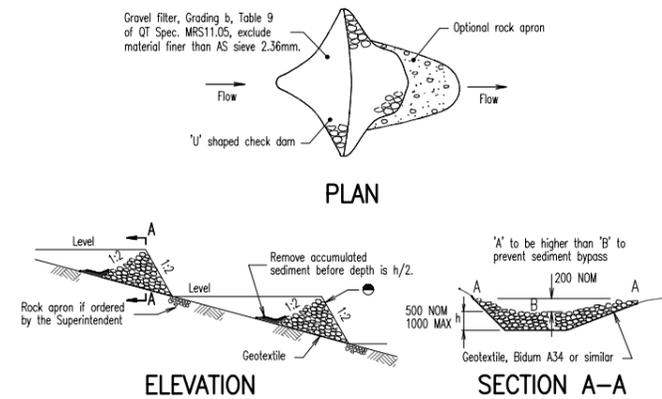
ALTERNATIVE 1

ALTERNATIVE 2



ELEVATION

SEDIMENT FENCE DETAILS



ELEVATION

SECTION A-A

CHECK DAMS

DOCUMENT CONTROL		APPROVED		SUNSHINE COAST		GOLD COAST		SURVEYOR		DATUM		PROJECT		DRAWING STATUS	
DESIGNED G.G.J.				Suite 2, Nonval Corporate Centre, 13 Nonval Ct, Maroochydore T: 07 5391 3777 F: 07 5646 5867 E: sunshinecoast@westerapartners.com.au		17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		SCHLENCKER SURVEYING QLD		AHD		68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509		FOR APPROVAL	
DRAWN G.G.J.				BRISBANE		NORTHERN NSW		PHONE (07) 5573 6744		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		TITLE		DRAWING NUMBER	
CHECKED B.C.A.		B. ARTHUR RPE/C 4384, NER 494962 For and on behalf of WESTERA PARTNERS PTY. LTD.		Level 2 Limestone, 33 Longland St, Newcastle T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		Suite 24 Level 2, 11-13 Pearl St, Kingscliff T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		EROSION AND SEDIMENT CONTROL DETAILS		G21-095-ESC02		CLIENT		SHEET NUMBER	
DATE JUNE 2022		FILE NAME Erosion_Det.dwg		www.westerapartners.com.au ABN 52 097 417 975				BORAL LIMITED		02 OF 03		REVISION			

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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GENERAL NOTES

- THE CONSULTING ENGINEER AND/OR COUNCIL INSPECTOR MAY ISSUE INSTRUCTIONS TO THE CONTRACTOR REGARDING EROSION AND SEDIMENT CONTROL THAT MAY VARY TO THE MEASURES SHOWN ON THIS DRAWING DUE TO CONSTRUCTION METHODOLOGIES AND VARYING SITE CONDITIONS.
- A SITE SPECIFIC GEOTECHNICAL INVESTIGATION SHALL BE CARRIED OUT PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE GEOTECHNICAL INVESTIGATION SHALL BE COMPLETED IN ACCORDANCE WITH GOLD COAST CITY COUNCILS SOIL SAMPLING AND TESTING GUIDELINE FOR EROSION POTENTIAL. THE EROSION AND SEDIMENT CONTROL MEASURES ON THIS DRAWING MAY BE ALTERED TO SUIT THE RESULTS OF THE GEOTECHNICAL INVESTIGATION AS DIRECTED BY THE CONSULTING ENGINEER.
- THIS ESCP DOES NOT OUTLINE ACID SULPHATE SOIL (ASS) MANAGEMENT REQUIREMENTS. IF ENCOUNTERED, ASS SHALL BE MANAGED IN ACCORDANCE WITH AN APPROVED ASS MANAGEMENT PLAN.
- TREATMENT AND DOSING RATES FOR APPROVED FLOCCULATING AGENTS TO BE DETERMINED FOLLOWING GEOTECHNICAL INVESTIGATION OF ON SITE SOILS.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT CONTROL DEVICES IN A FUNCTIONAL ORDER.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED AND A REVISED EROSION AND SEDIMENT CONTROL PROGRAM (ESCP) MUST BE SUBMITTED FOR APPROVAL BY THE SUPERINTENDENT AND INSPECTING ENGINEER IF CONSTRUCTION METHODOLOGIES OR SITE CONDITIONS VARY FROM THOSE CONSIDERED WITHIN THE ESCP. A REVISED ESCP IS ALSO REQUIRED IN THE EVENT THAT THE IMPLEMENTED WORKS FAIL TO ACHIEVE THE STATED "OBJECTIVE" OF THE ESCP, THE LOCAL GOVERNMENT ESC STANDARD, OR THE STATE'S ENVIRONMENTAL PROTECTION REQUIREMENTS.
- IN CIRCUMSTANCES WHERE IT IS CONSIDERED NECESSARY TO PREPARE AN AMENDED ESCP, AND WHERE THE DELIVERY OF SUCH AN AMENDED ESCP IS NOT IMMINENT, THEN ALL NECESSARY NEW OR MODIFIED EROSION AND SEDIMENT CONTROL WORKS MUST BE IN ACCORDANCE WITH THE I.E.C.A. TECHNICAL NOTES AND DRAWINGS AS DIRECTED BY THE SUPERINTENDENT AND INSPECTING ENGINEER. UPON APPROVAL OF THE AMENDED ESCP, ALL WORKS MUST BE IMPLEMENTED IN ACCORDANCE WITH THE AMENDED PLAN.
- ALL CONSTRUCTION AND MAINTENANCE IS TO BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL AUTHORITIES SPECIFICATIONS AND THE I.E.C.A. TECHNICAL NOTES AND DRAWINGS TO THE SATISFACTION OF THE SUPERINTENDENT AND LOCAL AUTHORITY. THIS ESCP IS BASED ON THE WORKS OUTLINED IN THE CIVIL ENGINEERING DRAWINGS BY WESTERA PARTNERS DATED MAY 2022, PROJECT No. G21/095.

LAND CLEARING

- ANY BULK CLEARING AND GRUBBING OF THE SITE MUST BE IMMEDIATELY FOLLOWED BY SPECIFIED STABILISATION MEASURES (e.g. TEMPORARY GRASSING OR MULCHING) PRIOR TO COMMENCEMENT OF EACH STAGE OF CONSTRUCTION WORKS.
- DISTURBANCE TO NATURAL WATERCOURSES (INCLUDING BED AND BANKS) AND THEIR ASSOCIATED RIPARIAN ZONES MUST BE LIMITED TO THE MINIMUM PRACTICABLE.
- NO LAND CLEARING SHALL BE UNDERTAKEN UNLESS PRECEDED BY THE INSTALLATION OF ADEQUATE DRAINAGE AND SEDIMENT CONTROL MEASURES.
- LAND CLEARING MUST BE LIMITED TO 5M FROM THE EDGE OF PROPOSED CONSTRUCTED WORKS, 2M OF ESSENTIAL CONSTRUCTION TRAFFIC ROUTES, AND A TOTAL OF 10M WIDTH FOR CONSTRUCTION ACCESS, UNLESS OTHERWISE APPROVED BY THE SUPERINTENDENT.
- PRIOR TO LAND CLEARING, AREAS OF PROTECTED VEGETATION MUST BE CLEARLY IDENTIFIED AND PROTECTED FROM CONSTRUCTION ACTIVITY FOR THE PURPOSE OF MINIMISING THE RISK OF UNNECESSARY LAND CLEARING.
- LAND CLEARING SHALL BE LIMITED TO THE MINIMUM PRACTICABLE DURING PERIODS WHEN SOIL EROSION DUE TO WIND, RAIN OR SURFACE WATER IS POSSIBLE.

SITE ACCESS

- PRIOR TO THE COMMENCEMENT OF SITE WORKS, THE LOCATION OF THE SITE ACCESS POINT MUST BE VERIFIED WITH THE SUPERINTENDENT.
- SITE EXIT POINTS MUST BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED, PUBLIC ROADWAYS.
- THE PUBLIC ROAD AT THE SITE ENTRY/EXIT POINT MUST BE KEPT CLEAN OF SEDIMENT. DIRTY ROADS MUST BE BROOMED IMMEDIATELY, NOT WASHED OFF INTO COUNCILS STORMWATER SYSTEM.
- STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS MUST DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.
- WHEEL – WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.

SOIL AND STOCKPILE MANAGEMENT

- STOCKPILES OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED, MUST BE:
 - APPROPRIATELY PROTECTED FROM WIND, RAIN, CONCENTRATED SURFACE FLOW AND EXCESSIVE UP-SLOPE STORMWATER SURFACE FLOWS.
 - LOCATED AT LEAST 2M FROM ANY HAZARDOUS AREA, RETAINED VEGETATION, OR CONCENTRATED DRAINAGE LINE.
 - LOCATED UP-SLOPE OF AN APPROPRIATE SEDIMENT CONTROL SYSTEM.
 - PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 28 DAYS.
 - PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 10 DAYS DURING THOSE MONTHS THAT HAVE A HIGH EROSION RISK.
 - PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 5 DAYS DURING THOSE MONTHS THAT HAVE A EXTREME EROSION RISK.
- A SUITABLE FLOW DIVERSION SYSTEM MUST BE ESTABLISHED IMMEDIATELY UP-SLOPE OF A STOCKPILE OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED, IF THE UP-SLOPE CATCHMENT AREA DRAINING TO THE STOCKPILE EXCEEDS 1500M2.

SITE MANAGEMENT

- SEDIMENT (INCLUDING CLAY, SILT, SAND, GRAVEL, SOIL, MUD, CEMENT AND CERAMIC WASTE) DEPOSITED OFF THE SITE AS A DIRECT RESULT OF AN ON-SITE ACTIVITY, MUST BE COLLECTED AND THE AREA APPROPRIATELY CLEANED/REHABILITATED AS SOON AS REASONABLE AND PRACTICABLE, AND IN A MANNER THAT GIVES APPROPRIATE CONSIDERATION TO THE SAFETY AND ENVIRONMENTAL RISKS ASSOCIATED WITH THE SEDIMENT DEPOSITION.
- ADEQUATE WASTE COLLECTION BINS MUST BE PROVIDED ON-SITE AND MAINTAINED SUCH THAT POTENTIAL AND ACTUAL ENVIRONMENTAL HARM RESULTING FROM SUCH MATERIAL WASTE IS MINIMISED.
- CONCRETE WASTE AND CHEMICAL PRODUCTS, INCLUDING PETROLEUM AND OIL-BASED PRODUCTS, MUST BE PREVENTED FROM ENTERING AN INTERNAL WATER BODY, OR AN EXTERNAL DRAIN, STORMWATER SYSTEM, OR WATER BODY.
- ALL FLAMMABLE AND COMBUSTIBLE LIQUIDS, INCLUDING ALL LIQUID CHEMICALS IF SUCH CHEMICALS COULD POTENTIALLY BE WASHED OR DISCHARGED FROM THE SITE, ARE STORED AND HANDLED ON-SITE IN ACCORDANCE WITH RELEVANT STANDARDS SUCH AS AS1940 THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
- TRENCHES NOT LOCATED WITHIN ROADWAYS MUST BE BACKFILLED, CAPPED WITH TOPSOIL, AND COMPACTED TO A LEVEL AT LEAST 75MM ABOVE ADJOINING GROUND LEVEL AND APPROPRIATELY STABILISED.
- ALL STORMWATER, SEWER LINE AND OTHER SERVICE TRENCHES, NOT LOCATED WITHIN ROADWAYS, MUST BE MULCHED AND SEEDED, OTHER OTHERWISE APPROPRIATELY STABILISED WITHIN 7 DAYS AFTER BACKFILL.
- NO MORE THAN 150M OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH MUST BE OPEN AT ANY ONE TIME.
- SITE SPOIL MUST BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.

DRAINAGE CONTROL

- ALL DRAINAGE CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED ESCP.
- WHEREVER REASONABLE AND PRACTICABLE, STORMWATER RUNOFF EXPOSING THE SITE FROM EXTERNAL AREAS, AND NON-SEDIMENT LADEN (CLEAN) STORMWATER RUNOFF ENTERING A WORK AREA OR AREA OF SOIL DISTURBANCE, MUST BE DIVERTED AROUND OR THROUGH THAT AREA IN A MANNER THAT MINIMISES SOIL EROSION AND THE CONTAMINATION OF THAT WATER FOR ALL DISCHARGES UP TO THE SPECIFIED DESIGN STORM DISCHARGE.
- DURING THE CONSTRUCTION PERIOD, ALL REASONABLE AND PRACTICABLE MEASURES MUST BE IMPLEMENTED TO CONTROL FLOW VELOCITIES IN SUCH A MANNER THAN PREVENTS SOIL EROSION ALONG DRAINAGE PATHS AND AT THE ENTRANCE AND EXIT OF ALL DRAINS AND DRAINAGE PIPES DURING ALL STORMS UP TO THE RELEVANT DESIGN STORM DISCHARGE.
- TO THE MAXIMUM DEGREE REASONABLE AND PRACTICABLE, ALL WATERS DISCHARGED DURING THE CONSTRUCTION PHASE MUST DISCHARGE ONTO STABLE LAND, IN A NON-EROSIVE MANNER, AND AT A LEGAL POINT OF DISCHARGE.
- WHEREVER REASONABLE AND PRACTICABLE, "CLEAN" SURFACE WATERS MUST BE DIVERTED AWAY FROM SEDIMENT CONTROL DEVICES AND ANY UNTREATED, SEDIMENT-LADEN WATERS.
- DURING THE CONSTRUCTION PERIOD, ROOF WATER MUST BE MANAGED IN A MANNER THAT MINIMISES SOIL EROSION THROUGHOUT THE SITE, AND SITE WETNESS WITHIN ACTIVE WORK AREAS.
- DEWATERING DURING EXCAVATION MUST BE CARRIED OUT IN ACCORDANCE WITH GCCC AND I.E.C.A. STANDARD DRAWINGS AND SPECIFICATIONS. ALL WATER DISCHARGED FROM SITE MUST BE TREATED FOR SEDIMENT AND BE APPROPRIATELY MANAGED IN A MANNER THAT DOES NOT CAUSE ENVIRONMENTAL HARM, FLOODING, DAMAGE OR NUISANCE TO NEIGHBOURING PROPERTIES.

EROSION CONTROL

- ALL EROSION CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED ESCP.
- THE APPLICATION OF LIQUID-BASED DUST SUPPRESSION MEASURES MUST ENSURE THAT SEDIMENT-LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.
- ALL TEMPORARY EARTH BANKS, FLOW DIVERSION SYSTEMS, AND EMBANKMENTS ASSOCIATED WITH CONSTRUCTED SEDIMENT BASINS MUST BE MACHINE-COMPACTED, SEEDED AND MULCHED FOR THE PURPOSE OF ESTABLISHING A TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING.
- THE CONSTRUCTION AND STABILISATION OF EARTH BATTERS STEEPER THAN 6:1 (H:V) MUST BE STAGED SUCH THAT NO MORE THAN 3 VERTICAL-METRES OF ANY BATTER IS EXPOSED TO RAINFALL AT ANY INSTANT.
- SYNTHETIC REINFORCED EROSION CONTROL MATS AND BLANKETS MUST NOT BE PLACED WITHIN, OR ADJACENT TO, RIPARIAN ZONES AND WATERCOURSES IF SUCH MATERIALS ARE LIKELY TO CAUSE ENVIRONMENTAL HARM TO WILDLIFE OR WILDLIFE HABITATS.

SEDIMENT CONTROL

- ALL SEDIMENT CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED ESCP.
- OPTIMUM BENEFIT MUST BE MADE OF EVERY OPPORTUNITY TO TRAP SEDIMENT WITHIN THE WORK SITE, AND AS CLOSE AS PRACTICABLE TO ITS SOURCE.
- SEDIMENT TRAPS MUST BE INSTALLED AND OPERATED TO BOTH COLLECT AND RETAIN SEDIMENT.
- THE POTENTIAL SAFETY RISK OF A PROPOSED SEDIMENT TRAP TO SITE WORKERS AND THE PUBLIC MUST BE GIVEN APPROPRIATE CONSIDERATION, ESPECIALLY THOSE DEVICES LOCATED WITHIN PUBLICLY ACCESSIBLE AREAS.
- ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT FROM THE SITE.
- SUITABLE ALL-WEATHER MAINTENANCE ACCESS MUST BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
- SEDIMENT CONTROL DEVICES MUST BE DE-SILTED AND MADE FULLY OPERATIONAL AS SOON AS REASONABLE AND PRACTICABLE AFTER A SEDIMENT-PRODUCING EVENT, WHETHER NATURAL OR ARTIFICIAL, IF THE DEVICE'S SEDIMENT RETENTION CAPACITY FALLS BELOW 75% OF ITS DESIGN RETENTION CAPACITY.
- MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM SEDIMENT CONTROL DEVICES DURING MAINTENANCE OR DECOMMISSIONING, MUST BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
- AS-CONSTRUCTED PLANS MUST BE PREPARED FOR ALL CONSTRUCTED SEDIMENT BASINS AND ASSOCIATED EMERGENCY SPILLWAYS. SUCH PLANS MUST APPROPRIATELY VERIFY THE BASIN'S DIMENSIONS, LEVELS AND VOLUMES, AND MUST BE SUBMITTED TO THE SUPERINTENDENT WITHIN 14 CALENDAR DAYS OF THE CONSTRUCTION OF EACH BASIN.
- SEDIMENT BASINS AND CONTROL DEVICES MUST BE MAINTAINED AND FULLY OPERATIONAL THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL EACH DEVICE'S CATCHMENT AREA ACHIEVES 70% GROUND COVER ON ALL SOIL SURFACES.
- SETTLED SEDIMENT MUST BE REMOVED FROM SEDIMENT BASINS WHEN THE VOLUME OF THE SEDIMENT EXCEEDS THE DESIGNATED SEDIMENT STORAGE VOLUME, OR THE DESIGN MAXIMUM SEDIMENT STORAGE ELEVATION.
- IN AREAS WHERE RUNOFF TURBIDITY IS TO BE CONTROLLED, EXPOSED SURFACES ARE TO BE EITHER MULCHED, COVERED WITH EROSION CONTROL BLANKETS OR TURFED IF EARTHWORKS ARE EXPECTED TO BE DELAYED FOR MORE THAN 14 DAYS.
- STRAW BALE SEDIMENT TRAPS ARE A SECONDARY OPTION WHICH GENERALLY SHOULD NOT BE USED IF OTHER OPTIONS ARE AVAILABLE.
- SEDIMENT FENCE
 - NOT TO BE LOCATED IN AREAS OF CONCENTRATED FLOW.
 - NORMALLY LOCATED ALONG THE CONTOUR WITH A MAXIMUM CATCHMENT AREA 0.6 HA PER 100M LENGTH OF FENCE.
 - ONLY WOVEN FABRICS ARE TO BE USED, NON-WOVEN FABRICS ARE TO BE AVOIDED UNLESS OTHERWISE DIRECTED BY THE SUPERVISING ENGINEER.
 - WHERE FENCES NEED TO BE LOCATED ACROSS THE CONTOUR THE LAYOUT SHALL BE AS DIRECTED BY THE MANAGER.
 - FENCES ARE REQUIRED 2M MIN FROM THE TOE OF CUT AND FILL BATTERS, WHERE NOT PRACTICAL ONE FENCE CAN BE AT THE TOE WITH A SECOND FENCE 1M MIN AWAY. FENCE SHOULD NOT BE LOCATED PARALLEL WITH TOE IF CONCENTRATION OF FLOW WILL OCCUR BEHIND THE FENCE.
- ALL STORMWATER INLET STRUCTURES IN THE IMMEDIATE DOWNSTREAM VICINITY OF THE WORK AREA SHALL HAVE APPROVED INLET PROTECTION TO PREVENT INGRESS OF WATER BORNE SEDIMENTS.
- SANDBAGS TO BE INSTALLED AT REGULAR INTERVALS ON ROAD PROFILE TO REDUCE EROSION & STEM FLOWS BY ACTING AS SMALL CHECK DAMS.
- EXTRA CATCH DRAINS MAY BE CONSTRUCTED BY CONTRACTOR IN ACCORDANCE WITH THESE DRAWINGS & I.E.C.A. TECHNICAL NOTES & DRAWINGS.

SITE MONITORING AND MAINTENANCE

- ALL WATER QUALITY DATA, INCLUDING DATES OF RAINFALL, DATES OF TESTING, TESTING RESULTS AND DATES OF WATER RELEASE, MUST BE KEPT IN AN ON-SITE REGISTER. THE REGISTER IS TO BE MAINTAINED UP TO DATE FOR THE DURATION OF THE APPROVED WORKS AND BE AVAILABLE ON-SITE FOR INSPECTION BY THE LOCAL AUTHORITY ON REQUEST.
- AT NOMINATED INSTREAM WATER MONITORING SITES, A MINIMUM OF 3 WATER SAMPLES MUST BE TAKEN AND ANALYSED, AND THE AVERAGE RESULT USED TO DETERMINE QUALITY.
- SEDIMENT BASIN WATER QUALITY SAMPLES MUST BE TAKEN AT A DEPTH NO GREATER THAN 200MM ABOVE THE LEVEL OF SETTLED SEDIMENT.
- ALL ENVIRONMENTALLY RELEVANT INCIDENTS MUST BE RECORDED IN A FIELD LOG THAT MUST REMAIN ACCESSIBLE TO ALL RELEVANT REGULATORY AUTHORITIES.
- ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THEIR OPERATIONAL LIVES.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE FULLY OPERATIONAL AND MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THE MAINTENANCE PERIOD AS SPECIFIED BY THE LOCAL AUTHORITY.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE REMOVED AFTER THE SITE HAS BEEN ADEQUATELY STABILISED OR AS DIRECTED BY THE SUPERINTENDENT.
- ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED:
 - AT LEAST DAILY (WHEN WORK IS OCCURRING ON-SITE);
 - AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON-SITE);
 - WITHIN 24 HOURS OF EXPECTED RAINFALL; AND
 - WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE RUNOFF ON-SITE).
- WASHING/FLUSHING OF SEALED ROADWAYS MUST ONLY OCCUR WHERE SWEEPING HAS FAILED TO REMOVE SUFFICIENT SEDIMENT AND THERE IS A COMPELLING NEED TO REMOVE THE REMAINING SEDIMENT (E.G. FOR SAFETY REASONS). IN SUCH CIRCUMSTANCES, ALL REASONABLE AND PRACTICABLE SEDIMENT CONTROL MEASURES MUST BE USED TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT INTO RECEIVING WATERS. ONLY THOSE MEASURES THAT WILL NOT CAUSE SAFETY AND PROPERTY FLOODING ISSUES SHALL BE EMPLOYED. SEDIMENT REMOVED FROM ROADWAYS MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
- SEDIMENT REMOVED FROM SEDIMENT TRAPS AND PLACES OF SEDIMENT DEPOSITION MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
- MAINTENANCE MOWING OF ALL ROAD SHOULDERS, TABLE DRAINS, BATTERS AND OTHER SURFACES LIKELY TO EXPERIENCE ACCELERATED SOIL EROSION MUST AIM TO LEAVE THE GRASS LENGTH NO SHORTER THAN 50MM WHERE REASONABLE AND PRACTICABLE.
- MAINTENANCE MOWING MUST BE DONE IN A MANNER THAT WILL NOT DAMAGE THE PROFILE OF FORMED, SOFT EDGES, SUCH AS THE CREST OF EARTH EMBANKMENTS.

SITE REHABILITATION

- ALL DISTURBED AREAS IDENTIFIED AS VERY LOW, LOW, MEDIUM, HIGH OR EXTREME RISK MUST BE SUITABLE WITHIN 30, 30, 20, 10 OR 5 DAYS RESPECTIVELY, OR PRIOR TO ANTICIPATED RAINFALL, WHICHEVER IS THE GREATER, FROM THE DAY THAT SOIL DISTURBANCES ON THE AREA HAVE BEEN FINALISED.
- A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION WITHIN 30 DAYS DURING THOSE MONTHS WHEN THE EXPECTED RAINFALL IS LESS THAN 30mm; MINIMUM 70% COVER WITHIN 30 DAYS IF BETWEEN 30 AND 45mm; MINIMUM 70% COVER WITHIN 20 DAYS IF BETWEEN 45 AND 100mm; MINIMUM 75% COVER WITHIN 10 DAYS IF BETWEEN 100 AND 225mm; AND MINIMUM 80% COVER WITHIN 5 DAYS IF GREATER THAN 225mm.
- DURING TIMES OF DECLARED WATER RESTRICTIONS, REFER TO GOLD COAST CITY COUNCIL'S 'DROUGHT CONDITIONS SPECIFICATION V2' FOR A DEEMED TO COMPLY SOLUTION TO ACHIEVING 70% GROUND COVERAGE.
- THE TYPE OF GROUND COVER APPLIED TO COMPLETED EARTHWORKS IS COMPATIBLE WITH THE ANTICIPATED LONG-TERM LAND USE, ENVIRONMENTAL RISK, AND SITE REHABILITATION MEASURES.
- UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT OR WHERE DIRECTED BY THE APPROVED REVEGETATION PLAN, TOPSOIL MUST BE PLACED AT A MINIMUM DEPTH OF 75mm ON SLOPES 4:1 (H:V) OR FLATTER, AND 50mm ON SLOPES STEEPER THAN 4:1.
- TEMPORARY SITE STABILISATION PROCEDURES MUST COMMENCE AT LEAST 30 DAYS PRIOR TO THE NOMINATED SITE SHUTDOWN DATE. AT LEAST 70% STABLE COVER OF ALL UNSTABLE AND/OR DISTURBED SOIL SURFACES MUST BE ACHIEVED PRIOR TO COMPLETION OF WORKS. THE STABILISATION WORKS MUST NOT RELY UPON THE LONGEVITY OF NON-VEGETATES EROSION CONTROL BLANKETS, OR TEMPORARY SOIL BINDERS.
- ALL UNSTABLE OR DISTURBED SOIL SURFACES MUST BE ADEQUATELY STABILISED AGAINST EROSION (MINIMUM 70%) PRIOR TO COMMENCEMENT OF USE, OR SURVEY PLAN ENDORSEMENT.

		DOCUMENT CONTROL	APPROVED	SUNSHINE COAST Suite 2, Nonval Corporate Centre, 13 Nonval Ct, Maroochydore T: 07 5391 3773 F: 07 5466 5887 E: sunshincoast@westerapartners.com.au		GOLD COAST Level 3 17 Walsh St, Southport T: 07 5571 1599 F: 07 5571 1330 E: goldcoast@westerapartners.com.au		SURVEYOR SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744		DATUM AHD	PROJECT LOCATION BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509	DRAWING STATUS FOR APPROVAL	
		DESIGNED G.G.J.		WESTERA PARTNERS STRUCTURAL + CIVIL + ENVIRONMENTAL ENGINEERS		BRISBANE Level 2 Limestone, 33 Langford St, Newstead T: 07 3852 4333 F: 07 3852 4777 E: brisbane@westerapartners.com.au		NORTHERN NSW Suite 24 Level 2, 11-13 Pearl St, Kingscliff T: 02 4474 8047 F: 02 4474 8049 E: nsw@westerapartners.com.au		USE FIGURED DIMENSIONS ONLY. DO NOT SCALE. IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALE DRAWINGS (A1-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS & WORKS EXECUTED FROM THEM IS VESTED IN WESTERA PARTNERS AND USE OF THERE FORE WITHOUT PERMISSION IS STRICTLY PROHIBITED IT IS THE BUILDERS RESPONSIBILITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS.		DRAWING NUMBER G21-095-ESC03	
		DRAWN G.G.J.										DRAWING NUMBER G21-095-ESC03	
		CHECKED B.C.A.										SHEET NUMBER 03 OF 03	
No.	DATE	REVISIONS	FILE NAME	Erosion_Notes.dwg							REVISION		

Our reference: OPW/2022/893
Your reference: 2766

Decision notice—approval (with conditions)

(Given under section 63(2) of the *Planning Act 2016*)

Date of decision notice: 2 March 2023

Applicant details

Applicant name: Boral Property Group Pty Ltd
Applicant contact details: C/- New Ground
PO BOX 713
MERMAID BEACH QLD 4218

Application details

Application number: OPW/2022/893
Approval sought: Operational Works
Details of proposed development: Tree works development – in accordance with OPW/2022/879

Location details

Street address: Lot 2 Cliff Barrons Road, Ormeau Hills Qld 4208
Real property description: Lot 1 RP174509

Decision

Date of decision: 28 February 2023
Decision details: Under Delegated Authority, the supervisor of the environmental assessment branch of Council has resolved to approve the development application in full with conditions

Referral agency(s) for the application

Not applicable – no part of the application required referral.

Details of the approval

Development permit: Operational works - Vegetation clearing

Conditions

The conditions that have been imposed by Council, as Assessment manager, are enclosed.

Further development permits

Notwithstanding the above, other approvals/development permits may be required.

Properly made submissions

Not applicable—No part of the application required public notification.

Currency period for the approval (section 85 of the *Planning Act 2016*)

In accordance with section 85 of the *Planning Act 2016*, this approval has a currency period of two years.

Approved plans and drawings

Approved plans and drawings are attached and are identified in the conditions imposed by Council as the Assessment manager.

Appeal rights

Applicant	<p>You have appeal rights in relation to this decision. An appeal may be made against, as applicable:</p> <ul style="list-style-type: none">• the refusal of part of the development application; or• a provision of the development approval; or• if a development permit was applied for, the decision to give a preliminary approval. <p>An appeal must be started within 20 business days after this notice is given to you.</p> <p>An appeal may be made to the Planning and Environment Court or, for certain matters which are identified in section 1(2) of Schedule 1 of the <i>Planning Act 2016</i>, to a development tribunal.</p> <p>An appeal is started by lodging a notice of appeal with the registrar of the Planning and Environment Court or a development tribunal, as applicable. The notice of appeal must be in the approved form, succinctly state the grounds of the appeal and be accompanied by the required fee.</p> <p>An appellant to the Planning and Environment Court must give a copy of the notice of appeal, within 10 business days after the appeal is started, to the persons identified in section 230(3) of the <i>Planning Act 2016</i>. A person who is appealing to the Planning and Environment Court must comply with the rules of the court that apply to the appeal.</p> <p>An extract of Chapter 6, Part 1 and Schedule 1 of the <i>Planning Act 2016</i> is attached to this notice, which sets out further information about the appeal rights.</p>
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For further information please contact Karen Vigoya, Environmental Planner on p: 07 5582 8866 or via email mail@goldcoast.qld.gov.au who will be pleased to assist.

Yours faithfully



Mark Spears

Supervisor - Environmental Assessment

For the Chief Executive Officer

Council of the City of Gold Coast

Enclosed: Conditions imposed by Council as Assessment manager

Attached: Stamped approved plans and drawings

Development Conditions imposed by Council as Assessment Manager																
General																
1	<p>Timing</p> <p>a All conditions of this development approval must be complied with at no cost to Council at all times unless otherwise stated in another condition.</p> <p>b Where the timing in a condition is prior to commencement of the use and a Building Format Plan is lodged for approval, the timing in the condition changes from being prior to commencement of the use to being prior to the earlier of the commencement of the use and approval of the plan of subdivision. This timing requirement prevails despite any inconsistency with the timing requirement in another condition.</p>															
2	<p>Approved drawings</p> <p>Undertake and maintain the development generally in accordance with the following drawings:</p> <table border="1"> <thead> <tr> <th>Drawing Title</th> <th>Author</th> <th>Date</th> <th>Drawing No.</th> <th>Ver</th> </tr> </thead> <tbody> <tr> <td><i>Vegetation Management Plan</i></td> <td><i>New Ground</i></td> <td><i>2/11/2022</i></td> <td><i>2766</i></td> <td><i>1</i></td> </tr> <tr> <td><i>Supplementary Data: Individual Tree Survey Data</i></td> <td><i>New Ground</i></td> <td><i>-</i></td> <td><i>2766</i></td> <td><i>-</i></td> </tr> </tbody> </table> <p>The conditions of this approval are to be read in conjunction with the attached stamped approved drawings. Where a conflict occurs between the conditions of this approval and the stamped approved drawings, the conditions of this approval shall take precedence.</p>	Drawing Title	Author	Date	Drawing No.	Ver	<i>Vegetation Management Plan</i>	<i>New Ground</i>	<i>2/11/2022</i>	<i>2766</i>	<i>1</i>	<i>Supplementary Data: Individual Tree Survey Data</i>	<i>New Ground</i>	<i>-</i>	<i>2766</i>	<i>-</i>
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3	<p>Approved Plans</p> <p>Undertake and maintain the development generally in accordance with the following plans:</p> <table border="1"> <thead> <tr> <th>Plan Title</th> <th>Author</th> <th>Date</th> <th>Plan Reference No.</th> <th>Ver</th> </tr> </thead> <tbody> <tr> <td><i>Vegetation Management Plan</i></td> <td><i>New Ground</i></td> <td><i>2/11/2022</i></td> <td><i>2766</i></td> <td><i>1</i></td> </tr> </tbody> </table>	Plan Title	Author	Date	Plan Reference No.	Ver	<i>Vegetation Management Plan</i>	<i>New Ground</i>	<i>2/11/2022</i>	<i>2766</i>	<i>1</i>					
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4	<p>Scope of works</p> <p>Undertake the vegetation clearing in accordance with the following scope of works:</p> <table border="1"> <thead> <tr> <th>Vegetation ID No.</th> <th>Quantity and species</th> <th>Approved works</th> <th>Justification of works</th> </tr> </thead> <tbody> <tr> <td>Trees 1 to 29</td> <td>Mixture of species</td> <td>To be retained and not damaged</td> <td>Outside area of works</td> </tr> </tbody> </table> <p>The conditions of this approval are to be read in conjunction with the attached stamped approved drawings. Where a conflict occurs between the conditions of this approval and the stamped approved drawings, the conditions of this approval shall take precedence.</p>	Vegetation ID No.	Quantity and species	Approved works	Justification of works	Trees 1 to 29	Mixture of species	To be retained and not damaged	Outside area of works							
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Trees 1 to 29	Mixture of species	To be retained and not damaged	Outside area of works													
Environmental and Landscaping																
5	<p>Vegetation management</p> <p>a Implement the vegetation management measures identified in the plan listed below at no cost to Council:</p>															

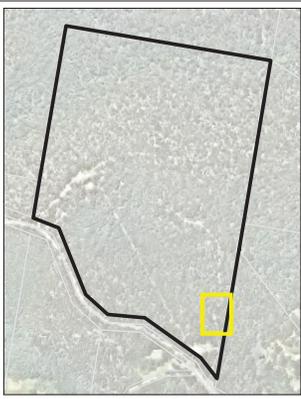
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	<i>Vegetation Management Plan</i>	<i>New Ground</i>	<i>2/11/2022</i>	<i>2766</i>	<i>1</i>						
	b Undertake works generally in accordance with an operational works approval and City Plan Policy SC6.8 – Environmental management plans and the Vegetation management code.										
6	Tree pruning and work a Topping, lopping, spur or spike climbing of any tree must not occur. b Pruning may only occur in a manner consistent with the <i>Australian Standard AS4373 - 2007 – Pruning of Amenity Trees</i> . c Undertake all other work on the trunk, foliage or root systems of the trees marked on the drawings listed below in a manner consistent with <i>Australian Standard AS4373 - 2007 - Pruning of Amenity Trees</i> .										
7	Root pruning and barriers a Ensure root pruning utilises a high pressure, needle point water jet prior to insertion of proprietary root barriers. b Ensure root barriers are installed to a minimum depth of 900mm along the side closest to the structure specified in the approved scope of works condition to prohibit or deter growth of roots towards the structure.										
8	No damage to retained vegetation Ensure all other existing vegetation is retained and not disturbed or damaged during implementation of the approved works.										
Construction Management											
9	Erosion and sediment control a Undertake works generally in accordance with the Healthy waters code of the City Plan and include in particular: <ul style="list-style-type: none"> i Sediment control structures e.g. sediment fence must be placed at the base of all materials imported on site to mitigate sediment run-off. ii A perimeter bund and/or diversion drain must be constructed around the disturbed areas to prevent any outside clean stormwater from mixing with polluted/contaminated stormwater. iii All polluted/contaminated water from the site, including dewatering discharge, must be treated to achieve the water quality objectives in Table 8.2.1 of the Queensland Water Quality Guidelines (DERM September 2009) prior to discharging from the site. iv Inspections for erosion and sediment control measures are to occur in accordance with the compliance procedures in City Plan Policy SC6. 11 – Land development guidelines, section 6. 										
10	Supervision of works During construction of any works the following professionals must be appointed to supervise the below described actions:										
	<table border="1"> <thead> <tr> <th colspan="2">Environmental Assessment</th> </tr> <tr> <th>Expertise required of the suitably qualified</th> <th>Actions to be overseen by the professional</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>					Environmental Assessment		Expertise required of the suitably qualified	Actions to be overseen by the professional		
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	professional																
	Minimum AQF Level 5 Arborist	Construction and fencing works within the Tree Protection Zone (TPZ) of subject trees to be retained Supervision of works within Tree Protection Zone (TPZ) of trees to be retained															
11	<p>Certification of works</p> <p>Provide Council with certificates prepared by qualified experts from the disciplines listed below, confirming as follows:</p> <table border="1"> <thead> <tr> <th colspan="5">Environmental Assessment</th> </tr> <tr> <th>Certified document</th> <th>Certification date</th> <th>Plan/ Drawing</th> <th>Expert discipline</th> <th>Requesting Council Section</th> </tr> </thead> <tbody> <tr> <td><i>Vegetation management plan</i></td> <td><i>Upon practical completion of works</i></td> <td>2766</td> <td><i>AQF Level 5 Arborist</i></td> <td><i>Environmental Assessment</i></td> </tr> </tbody> </table> <p>The certification is to confirm:</p> <ul style="list-style-type: none"> i The works on site were undertaken in accordance with the approved Vegetation management plan ii Vegetation identified to be retained has been retained without damage. iii Any recommended actions to remediate damage to any retained vegetation. iv The TPZ fencing was maintained at all times. No works occurred within this area unless supervised by Project Arborist - Certificate Level 5. 		Environmental Assessment					Certified document	Certification date	Plan/ Drawing	Expert discipline	Requesting Council Section	<i>Vegetation management plan</i>	<i>Upon practical completion of works</i>	2766	<i>AQF Level 5 Arborist</i>	<i>Environmental Assessment</i>
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12	<p>Availability of approved plans, drawings and reports</p> <p>Retain a copy of this decision notice and stamped approved plans, drawings and reports on site at all times during construction. Any contractors undertaking approved work (including tree removal or relocations) must be directly provided with a copy of these conditions and instructed as to the need to comply with them.</p>																

Advice Notes	
A	<p>Compliance with conditions</p> <p>Once this development approval takes effect, the conditions attach to the land and are applicable in perpetuity. It is a development offence to contravene a development approval, including any of its conditions.</p>
B	<p>Indigenous cultural heritage legislation and duty of care requirement</p> <p>The <i>Aboriginal Cultural Heritage Act 2003</i> ('ACHA') is administered by the Department of Seniors, Disability Services and Aboriginal and Torres Strait Islander Partnerships (DSDSATSIP). The ACHA establishes a duty of care to take all reasonable and practicable measures to ensure any activity does not harm Aboriginal cultural heritage. This duty of care:</p> <ul style="list-style-type: none"> a Is not negated by the issuing of this development approval; b Applies on all land and water, including freehold land; c Lies with the person or entity conducting an activity; and d If breached, is subject to criminal offence penalties. <p>Those proposing an activity involving surface disturbance beyond that which has already occurred at the proposed site must observe this duty of care.</p> <p>Details of how to fulfil this duty of care are outlined in the duty of care guidelines gazetted with the ACHA.</p> <p>The applicant should contact DSDSATSIP's Cultural Heritage Coordination Unit on 1300 378</p>

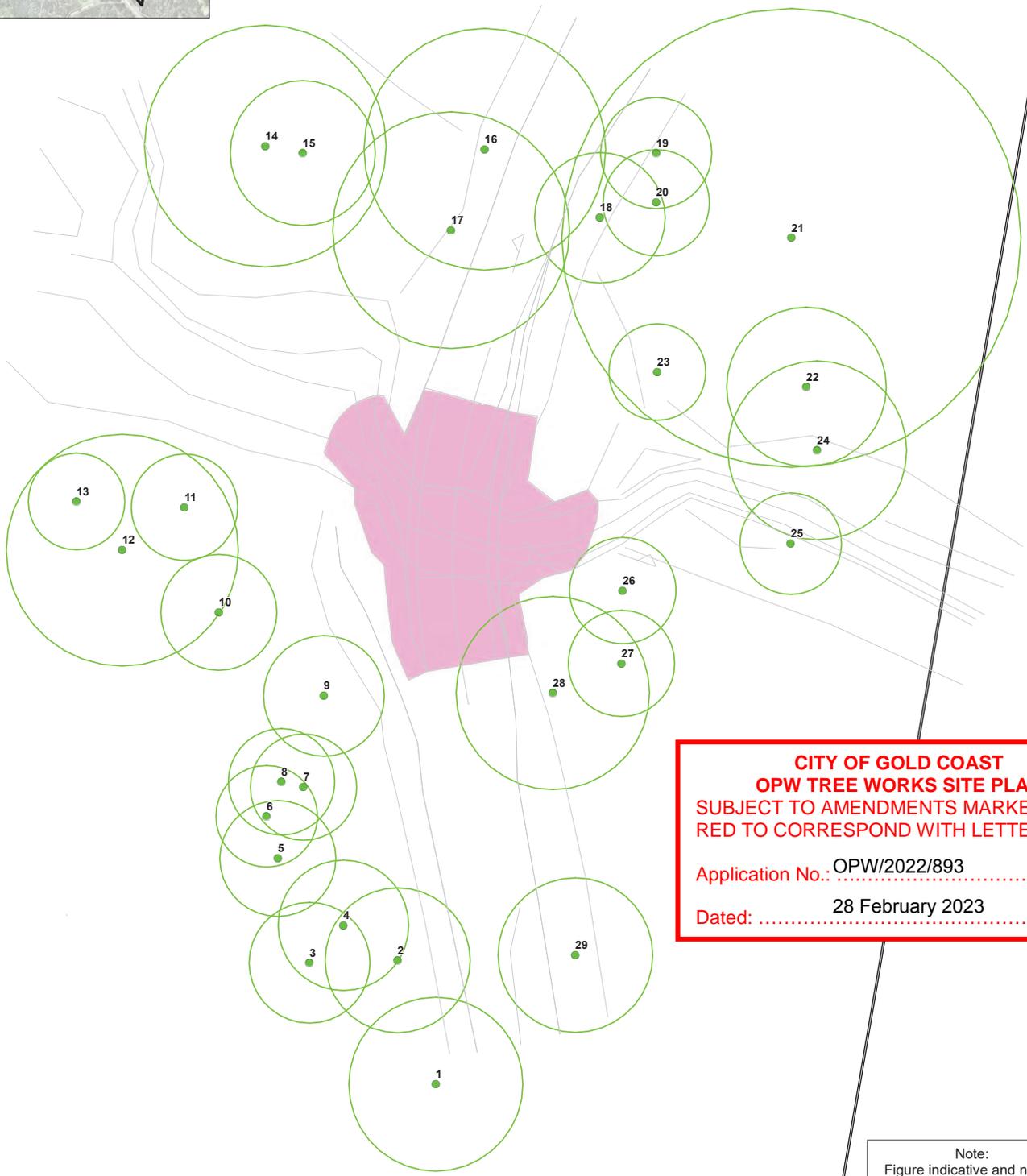
	401 for further information on the responsibilities of developers under the ACHA.
C	<p>Applicant responsibilities</p> <p>The applicant is responsible for securing all necessary approvals and tenure, providing statutory notifications and complying with all relevant laws.</p> <p>Nothing in this decision notice alleviates the need for the applicant to comply with all relevant local, State and Commonwealth laws and to ensure appropriate tenure arrangements have been made where the use of/reliance upon land other than that owned by the applicant is involved. Without limiting this obligation, the applicant is responsible for:</p> <ol style="list-style-type: none"> a Obtaining all other/further necessary approvals, licences, permits, resource entitlements etc by whatever name called required by law before the development the subject of this approval can be lawfully commenced and to carry out the activity for its duration. b Providing any notifications required by law (by way of example only, to notify the administering authority pursuant to the <i>Environment Protection Act 1994</i> of environmental harm being caused/threatened by the activity, and upon becoming aware the premises is being used for a 'notifiable activity'). c Securing tenure/permission from the relevant owner to use private or public land not owned by the applicant (including for access required by conditions of approval). d Ensuring existing survey marks, including cadastral marks at property corners, i.e pegs or cadastral reference marks in the road reserve (permanent surveys marks, buried iron pins, and various marks in concrete or bitumen structure) are not interfered with. A Consulting Cadastral Surveyor must be contacted if survey marks are disturbed or destroyed during any works in relation to this or related approvals, to investigate and determine if any further action is required. More information on interference with survey marks is available under Section 42 of the <i>Survey and Mapping Infrastructure Act 2003</i>. e Ensuring the correct siting of structures on the land. An identification survey demonstrating correct siting and setbacks of structures may be requested of the applicant to ensure compliance with this decision notice and applicable codes. f Providing Council with proof of payment of the Portable Long Service Leave building construction levy (or proof of appropriate exemption) where the total value of the building and construction works exceeds \$150,000 (excluding GST). Acceptable proof of payment is a Q.Leave –Notification and Payment Form approved by the Authority. Proof of payment must be provided before Council can issue a development permit for the Operational works. This is a requirement of section 77(1) of the Building and Construction Industry (Portable Long Service Leave) Act 1991. g Making payment of any outstanding Council rates and charges applicable to the development site prior to the lodgement of subdivision plans. h Obtaining any necessary local government/state approvals where works require the installation of temporary ground anchoring into adjacent Road Reserves. Where ground anchoring is proposed into an adjacent private property, approval from the relevant property owners(s) is required.
D	<p>Weeds, pest animals and ants</p> <p>Biosecurity Queensland of the Department of Agriculture and Fisheries leads the Government's efforts to prevent, respond to and recover from pests and diseases threatening agricultural prosperity, the environment, social amenity and human health.</p> <p>All landscape materials, including but not limited to, soils, mulch, grass, gravel, potted or ex-ground plants, pavers and timber used in landscape treatments must be free from weeds, pest animals and ants.</p>
E	<p>Fire ant control</p> <p>A significant portion of the Gold Coast is within Fire Ant Biosecurity zone 2 and must remain vigilant for the presence of fire ants. Under the <i>Biosecurity Act 2014</i> individuals and organisations whose activities involve the movement or storage of fire ant carriers have a</p>

	<p>general biosecurity obligation to take all reasonable steps to ensure they do not spread fire ants. Movement of a fire ant carrier from within the fire ant biosecurity zone may need a biosecurity instrument permit. More information is available on the Department of Agriculture and Fisheries website www.daf.qld.gov.au/plants/weeds-pest-animals-ants/invasive-ants/fire-ants.</p>
F	<p>Listing of Koala under EPBC Act</p> <p>Koala populations in South East Queensland are listed under the Environment Protection and Biodiversity Conservation Act 1999 (<i>EPBC Act</i>) as a matter of national significance. All necessary approvals must be obtained prior to any works commencing on the site.</p>
G	<p>Species Management Program</p> <p>Where an animal breeding place has been identified and activities will tamper with the breeding place in order to complete the scope of works, a Species Management Program (SMP) is required.</p> <p>Further advice is found on:</p> <p>https://environment.des.qld.gov.au/licences-permits/plants-animals/species-management-program/</p>



Legend

- Subject Site
- Extent of Works
- Tree Stem**
- Retain
- TPZ**
- Retain



**CITY OF GOLD COAST
OPW TREE WORKS SITE PLAN**
SUBJECT TO AMENDMENTS MARKED IN RED TO CORRESPOND WITH LETTER

Application No.: OPW/2022/893

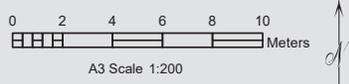
Dated: 28 February 2023

Note:
Figure indicative and not for construction purposes

File: 2768-Corona-VegetationManagement-221102



VEGETATION MANAGEMENT PLAN – PART LOT 1 RP174509



Sheet Number: 1 of 3
 Project: 2766
 Version: 1
 Date: 2/11/2022
 Sources: Cadastral boundaries: QLD DCDB DNRME 2022
 Aerial photo: NearMap 14/11/2021
 Tree plots: SCHLENCKER SURVEYING (QLD) PTY LTD 2022
 Development layout: Westera Partners (Drawing G21-095-G01, 19 Oct 2022)



TABLE.1: INDIVIDUAL TREE SURVEY DATA

TREE NO	SCIENTIFIC NAME	DBH (CM) (MULTI-STEM DIAMETER)	TREE PROTECTION ZONE (TPZ) (M)	HEIGHT (M)	CROWN DIAMETER (M)	TREE HEALTH COMMENT	FAUNA HABITAT FEATURES	PROPOSED STATUS
1	<i>Lophostemon confertus</i>	36 (20,30)	4.3	20	6	Typical	-	Retain
2	(Stag)	30	3.6	15	-	Dead	Hollow crevices (<2cm)	Retain
3	(Stag)	25	3.0	15	-	Dead	-	Retain
4	<i>Lophostemon confertus</i>	27	3.2	20	3	Typical	-	Retain
5	<i>Lophostemon confertus</i>	24	2.8	18	3	Typical	-	Retain
6	<i>Eucalyptus propinqua</i>	21	2.5	20	3	Typical	-	Retain
7	<i>Eucalyptus propinqua</i>	22	2.6	20	2	Typical	-	Retain
8	<i>Angophora leiocarpa</i>	22	2.6	20	2	Typical	-	Retain
9	<i>Eucalyptus propinqua</i>	25	3.0	20	3	Typical	-	Retain
10	<i>Eucalyptus propinqua</i>	24	2.8	20	3	Typical	-	Retain
11	<i>Eucalyptus propinqua</i>	22	2.6	20	4	Typical	-	Retain
12	<i>Angophora leiocarpa</i>	48	5.7	25	5	Typical	Hollow (~25cm diameter)	Retain
13	<i>Eucalyptus propinqua</i>	20	2.0	15	3	Typical	-	Retain
14	<i>Angophora leiocarpa</i>	50	6.0	25	7	Senescing	Hollows (<10cm diameter)	Retain
15	<i>Corymbia intermedia</i>	30	3.6	20	4	Dieback	-	Retain
16	<i>Eucalyptus microcorys</i>	50	6.0	25	8	Typical	Hollow (~20cm diameter) plus arboreal termitarium	Retain
17	<i>Eucalyptus propinqua</i>	49	5.8	25	7	Typical	-	Retain
18	<i>Corymbia intermedia</i>	27	3.2	15	3	Dieback	-	Retain
19	<i>Corymbia intermedia</i>	23	2.7	15	3	Typical	-	Retain
20	<i>Corymbia intermedia</i>	22	2.6	15	2	Typical	-	Retain
21	<i>Eucalyptus propinqua</i>	95	11.4	25	8	Typical	Habitat Tree*, Hollow (~15cm diameter)	Retain
22	<i>Lophostemon confertus</i>	33	3.9	15	4	Typical	-	Retain
23	<i>Lophostemon confertus</i>	20	2.4	12	3	Typical	-	Retain
24	<i>Lophostemon confertus</i>	37	4.4	20	6	Typical	-	Retain
25	<i>Lophostemon confertus</i>	21	2.5	13	3	Typical	-	Retain
26	<i>Lophostemon confertus</i>	22	2.6	12	4	Typical	-	Retain
27	<i>Lophostemon confertus</i>	22	2.6	12	3	Typical	-	Retain
28	<i>Eucalyptus propinqua</i>	40	4.8	20	6	Typical	Possam scratches	Retain
29	<i>Eucalyptus propinqua</i>	32	3.8	20	4	Typical	Possam scratches	Retain

Notes: Reproductive material could not be found for all trees to allow conclusive identification.

Individual tree survey targeted native trees within and overhanging the proposed development disturbance footprint with a DBH >200mm. In addition, a Protected Plants Flora Survey was undertaken in accordance with DES (2020) Protected Plants Flora Survey Guideline (Protected Plants not recorded and an exemption notification acknowledged by DES (18 July 2022). Flora within the disturbance footprint was also assessed and characterised as follows:

Vegetation Community in which proposed disturbance footprint occurs is described as Open forest resembling RE12.11.3 (20-25m high, 30-70%) with T1 strata dominated of *Eucalyptus propinqua*, *Lophostemon confertus*, *E. microcorys* and *Corymbia intermedia* with a T2 stratum (10-15m, 30-70%) of *L. confertus* and *Acacia concurrens*. Shrub layer (1-2m, 10-30%) of *Lantana camara**, *Senna pendula**, *Acacia spp.*, *Hymenosporum flavum*. Ground layer (<1m, 10-40%) of *Ghania aspera*, *Ochna serrulata**, *L.camara**, *Lepidospermum laterale*, *Schefflera actinophylla*.

Tree Protection Zone and multi-stem tree DBH were calculated in accordance with AS4970-2009

*Habitat Tree is defined by schedule 1 of the City Plan 2016 as: *A living or dead tree greater than 80 centimetres diameter at 1.4 metres that has one or more hollows within its trunk or branches greater than 10 centimetres in entrance diameter.*