

# Annual Compliance Report

03 February 2024 to 02 February 2025 EPBC 2016/7797 Ormeau Quarry Expansion, 12 km north-west of Oxenford, Queensland Prepared for Boral Resources (QLD) Pty Ltd

30<sup>th</sup> April 2025

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	ı

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Position	Principal Ecologist
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Date	30th April 2025

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## **Document Control**

Document: EPBC Annual Compliance Report (Year 4), prepared by Saunders Havill Group for Boral

Resources Pty Limited, dated 30<sup>th</sup> April 2025.

#### Document Issue

Issue	Date	Prepared By	Checked By
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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 Environment Protection and Biodiversity Conservation Act 1999 (Cth)

GCCC Gold Coast City Council

ha hectares

KCH Koala critical habitat

km kilometres m metres

MNES Matters of National Environmental Significance

NCA Nature Conservation Act 1992 (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 Vegetation Management Act 1999 (Qld)

#### **Management Plans**

VDEC Offset Area Voluntary Declaration Package (Year 1 ACR – Appendix C)

BMP Bushfire Management Plan, prepared by Land and Environment Consultants (Year 1 ACR –

Appendix H)

EMP Environmental Management Plan, prepared by Saunders Havill Group, dated November, 2018

(Year 1 ACR – Appendix D)

KHMP Koala Habitat Management Plan, prepared by Saunders Havill Group, dated September 2021

(Year 1 ACR - Appendix F).

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 (Year 1 ACR - Appendix D).

VPMP Vertebrate Pest Management Plan, prepared by Saunders Havill Group, dated September 2021

(Year 1 ACR – Appendix G).

WMP Weed Management Plan, prepared by Saunders Havill Group, dated July 2021 (Year 1 ACR –

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Appendix E).



## 1. Introduction

This Annual Compliance Report (ACR) Year 4 (3 February 2024 – 2 February 2025) 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).

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 between the 3 February 2024 and 2 February 2025.

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 (3 February 2021). The end of the three-month period for the Year 4 reporting period is the 3 May 2024.

### 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



	Act referral 2016/7797].
Controlling Provision(s)	Listed threated 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

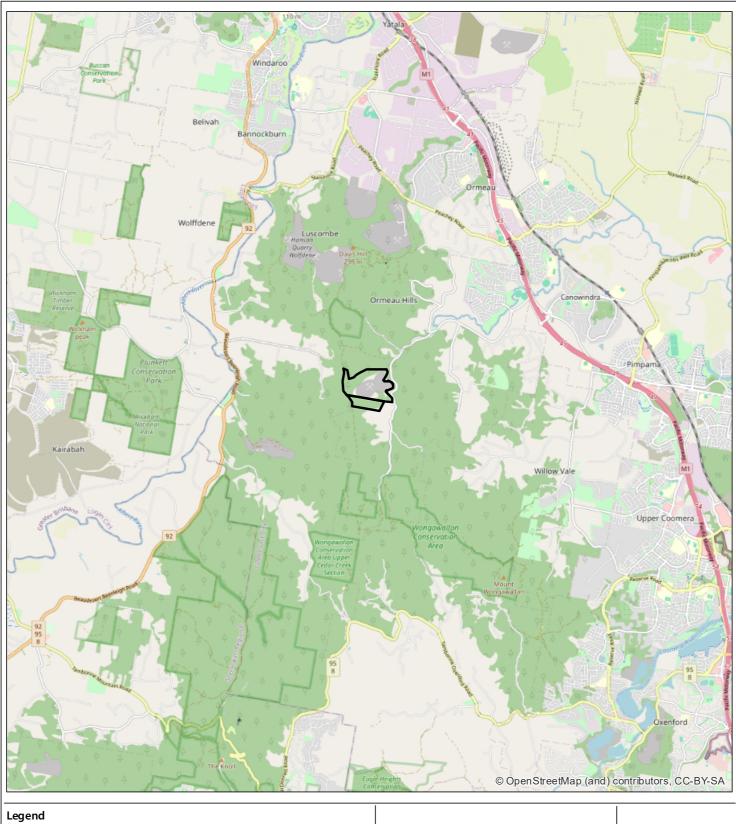
Contextually, the Project is located in south-east Queensland, approximately 12 km north-west of Oxenford within the Gold Coast City Council Local Government Area. The Project area is surrounded by a matrix of rural and rural residential allotments, remnant vegetation and other quarries in the greater 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 4 of the Project, the following development and environmental management activities occurred:

- Clearing of 2.28 ha Koala critical habitat (KCH) within impact area.
- Continued use of the Bushfire Management Plan, Weed Management Plan, Koala Habitat (Rehabilitation) Management Plan and Vertebrate Pest Management Plan for the 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 completed treatment of WONS where accessible at the offset site.
- Non-native vertebrate pest monitoring services were carried out within the offset area by Biodiversity
  Australia and Saunders Havill Group (SHG). Monitoring surveys involved the use of passive infrared
  monitoring cameras in accordance with the Vertebrate Pest Management Plan (VPMP)
  - Biodiversity Australia conducted monitoring during summer season February 2024 and January 2025. Both Canis familiaris (Domestic / Feral Dog) and Vulpes vulpes (European red fox) non-native pest species recorded.
  - SHG conducted monitoring during winter/spring season from August to September 2024.
     Vulpes vulpes (European red fox) was the only non-native pest species recorded.
- Fireland completed an inspection of all fire lines. The reconstruction of all fire lines was also contracted and commenced in October 2024 however, complaints from neighbouring land to Gold Coast City Council and other regulators enforced a temporary stoppage of fire line work. Following this, wet weather prevented additional work on reconstructing fire lines until after the ACR period. The previous year's burn plan, developed by specialist bushfire management consultants, in accordance with the Bushfire Management Plan, was reassessed and determined to be applicable to the current ACR year.







## Figure 1

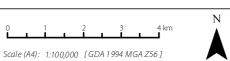
Project Site Context



File ref. 10233 E Figure 1 YR4 Project Site Context A

**Date** 11/04/2025

**Project** Upper Ormeau Road, Ormeau





HESE PLANS HAVE BEBN PRIBARED FOR THE EXCLUSIVE USE FIFTHECLIENT, SAUNDERS HAVELL GROUP CANNOT ACCEPT PPONSIBILITY FOR ANY USE OF OR RELIANCE UPON THE ONTENTS OF THESE DRAWINGS BY ANY THRD PARTY.







Project Site

QId DCDB

## Figure 2

Project Site Aerial



 File ref.
 10233 E Figure 2 YR4 Project Site Aerial A

 Date
 11/04/2025

**Project** Upper Ormeau Road, Ormeau

Scale (A4): 1:7,500 [GDA 1994 MGA Z56]





# 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 (refer **Year 1 ACR – Appendix C**). 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 (OMP) 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 (refer **Year 1 ACR – Appendix C**).

### 2.2. Vegetation Clearing

Clearing commenced on 3 February 2021, and written evidence was provided to the Department (refer **Appendix D).** During Year 4, 2.28 ha of Koala habitat was cleared, resulting in a total 15.56 ha of Koala habitat being cleared during the life of the project. Refer **Plan 1** for clearing extent.

### 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 4.

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 27 August, 9 – 13 and the 16 September 2024 (refer **Plan 3**).

#### 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 4.



#### 2.4.2 Camera trapping and observed fauna – SHG

SHG ecologists completed general meander surveys and motion sensor camera trapping during the Year 4 monitoring period. These surveys were conducted within the offset area to identify koala and non-native vertebrate pest presence.

**Plan 3** displays the camera trap locations during the Year 4 monitoring period. The fauna equipment was deployed on the 27 August 2024 and collected on the 16 September 2025, resulting in an active period of 20 nights. A total of twelve (12) fauna species were recorded as a result of on-ground field surveys and camera trapping (refer **Table 3**, **Photo set 1** and **Appendix B** for camera trap images).

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

Table 3: Observed fauna and camera trapping results – SHG surveys August/September 2024

Scientific Name	Common Name	Native/Introduced	Survey Method*
Birds			
Alectura lathami	Australian Brush Turkey	Native	СТ
Chalcophaps longirostris	Emerald Dove	Native	СТ
Leucosarcia melanoleuca	Wonga Pigeon	Native	СТ
Mammals			
Macropus rufogruiseus	Red-necked Wallaby	Native	СТ
Perameles nasuta	Long-nosed Bandicoot	Native	СТ
Phascolarctos cinereus	Koala	Native	СТ
Rattus fuscipes	Bush Rat	Native	СТ
Trichosurus vulpecula	Brush-tailed Possum	Native	СТ
Vulpes vulpes	European Red Fox	Introduced	CT & S
Wallabia bicolor	Swamp Wallaby	Native	СТ
Monotreme			
Tachyglossus aculeatus	Short-beaked Echidna	Native	СТ
Reptile			
Varanus varius	Lace Monitor	Native	СТ
*CT = camera trapping, S = direct sighting			

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Photo set 1: Koala captured on camera traps within the offset site.

#### 2.4.3 Weed mapping – SHG

SHG ecologists spatially recorded areas within the offset area containing WONS, specifically targeting *Lantana* camara (Lantana). Refer to **Plan 4** for the Year 4 weed mapping results. As shown on the specified plan, WONS are present in varying density levels across the site (refer **Photo set 2**).



Photo set 2: Dense Lantana camara patches within offset site.

#### 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 (refer **Section 2.4.2**). Two (2) targeted non-native vertebrate pest monitoring surveys were undertaken by Biodiversity Australia during Year 4 as part of the requirements under the Vertebrate Pest species Management Plan (refer **Year 1 ACR**). During the Year 4 monitoring period, as described further in **section 2.5.6**, ongoing access issues associated with weather conditions has restricted access for the pest management team. These weather events have resulted in a restricted number of monitoring stations (5) being established, being predominantly located outside of the offset area within neighbouring land (south-east). Future pest monitoring events have been requested during

September/October in the dry season. This is expected to be a permanent timing adjustment for surveys in order to remove the ongoing access issues during recent, unexpectedly extended wet seasons.

The required camera monitoring programs were completed over a period of 14 consecutive days, the February 2024 period beginning 15<sup>th</sup> February 2024 and ending 28<sup>th</sup> February 2024 and the January 2025 period beginning 10<sup>th</sup> January 2025 (refer **Appendix C** for Monitoring Reports).

During the latest monitoring period, *Vulpes vulpes* (European red fox) and *Canis familiaris* (Domestic / Feral Dog) non-native vertebrate pests were recorded. In addition, the native *Macropus rufogriseus* (red-necked wallaby) and *Alectura lathami* (Australian Brush Turkey) were detected several times across multiple camera locations.



## 2.5. Offset Area Management

Management activities have been conducted across the site in accordance with the management actions outlined in the Offset Management Plan (OMP) during the Year 4 compliance period. Weed management, bushfire management, access tracks and vertebrate pest species management were conducted across the site. The following Sections, along with **Table 5**, detail the management actions conducted during Year 4.

#### 2.5.1 Weeds of National Significance (WONS) treatment

As per the OMP requirements a Weed Management Plan (WMP) was produced by SHG in 2021. The WMP details the baseline surveys of weed cover and weed species detected within the offset area along with management actions, timeframes, and monitoring techniques (refer **Year 1 ACR**).

SHG ecologists mapped the extent of WONs across the offset area during the 2024/2025 compliance period. WONs identified and mapped were predominantly *Lantana camara* (Lantana) (refer **Plan 4**).

Bushcare services continued the treatment of WONs across the site during the current compliance period. Actions were focused on the southern portion of the site where Bushcare services deemed were safely accessible. Accessibility issues continued for Year 4, due to heavy rainfall impacting the construction of the culvert on several separate occasions (refer to **Section 4.1** for further details). Treatment methods completed in areas that could be safely accessed included chemical treatment (cut and paint) and manual removal. Weed treatment areas are demonstrated on **Plan 5**.

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

#### 2.5.2 Rehabilitation and Regeneration

Baseline mapping of the offset site was conducted in order to identify areas of potential rehabilitation and regeneration area as well as a plan specifying techniques and species to be planted.

Rehabilitation across the offset site is predominantly driven by associated weed management, with assisted regeneration utilised in more open areas, following intense weed treatment, which is to be supported by safe access for efficient management and to ensure high survival rates of any planted specimens.

#### 2.5.3 Vertebrate Pest Species Management

A Vertebrate Pest Management Plan (VPMP) was completed by SHG 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 was conducted on two separate occasions across the offset site within the Year 4 period (February 2024 and January 2025). The aim of this monitoring is to identify any feral or domestic dogs and/or evidence of dogs. During the February 2024 monitoring period two (2) *Vulpes vulpes* (European Red Fox) sightings were recorded. During the January 2025 monitoring period six (6) *Vulpes vulpes* (European Red Fox) sightings and three (3) *Canis familiaris* (Domestic / Feral Dog) sightings were recorded.

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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.

Continued monitoring efforts generally in accordance with the VPMP during Year 4 (outside of the current reporting period) were completed, although altered due to access limitations.

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

#### 2.5.4 Koala Habitat Quality

The Koala Habitat Management Plan (KHMP) developed by SHG for the offset area details strategies that will be implemented to achieve koala habitat rehabilitation aims detailed in the OMP, under Management Action 5. The management zones detailed in **Plan 2** display the management actions and techniques to be utilised within each zone. Management of WONs as detailed in **Section 2.5.1** was not able to be completed across the entirety of the offset site due to ongoing access issues. Further, rehabilitation works including proposed planting could also not be completed due to access issues.

SHG ecologists conducted annual habitat quality monitoring of koala habitat utilising the MHQA methodology at six permanent transect locations across the offset site during the Year 4 compliance period (refer **Plan 3**).

Habitat quality scores remained relatively steady between Year 1, Year 2, Year 3 and Year 4 with only minor variation.

Koala scats were recorded during SAT surveys within the current ACR year at three (3) of the transect locations, demonstrating Koalas continue to use the offset site.

#### 2.5.5 Bushfire Management

A Burn Plan was developed by Fireland, and deemed to remain applicable to the site conditions, 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 weather conditions not being suitable to complete the prescribed Bushfire Management, as determined by the bushfire specialists. To reduce potential risks to areas outside the proposed burn area, weather conditions need to be suitable to safely complete the burn. Due to weather issues, the burn was unable to be safely conducted.

Fireland completed an inspection of all fire lines. The reconstruction of all fire lines was also contracted and commenced in October 2024 however, complaints from neighbouring land to Gold Coast City Council and



other regulators enforced a temporary stoppage of fire line work. Following this, wet weather prevented additional work on reconstructing fire lines until after the ACR period.

On-ground fire management is currently awaiting suitable weather, following which actions from the current burn plan will be commenced.

#### Refer to **Appendix E** for current Burn Plan.

#### 2.5.6 Ongoing Access Track Issues

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. Ethics legislation and approval conditions for animal trapping also limits the ability to use vertebrate traps in terrain whereby regular access to ensure animal health and minimisation of distress is precluded.

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.

During the Year 2 reporting period, 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. Evidence of Boral's journey to navigate the works approval, involving numerous meetings and correspondence, and associated approval are detailed in Year 2 ACR documentation.

The approval to complete the access tracks works was received in April 2023 and Boral expedited the works for commencement in May 2023. However, heavy rainfall was received in South East Queensland during December 2023 and January 2024. This resulted in significant impacts to the construction of the crossing, resulting in damage to the crossing. **Table 4** demonstrates the rainfall received for the month compared to the long-term average.

Further, severe storms hit the Gold Coast and other Local Government areas on 25 December 2023. Heavy rainfall and strong winds hit South East Queensland, resulting in extensive damage across the Gold Coast, Logan and Scenic Rim Local Government Areas. A total of 138.6mm of rainfall was recorded overnight and a maximum wind gust of 106km/hr was recorded. This data was extracted from Gold Coast Seaway (Station ID 040764) (BOM 2024). Since this period, South East Queensland has been subject to high levels of rainfall from February to March 2024 with moderate levels of precipitation persisting throughout most of 2024 before increasing in October 2024 (refer **Table 5**).



Table 4: Rainfall received compared to the mean rainfall data – November 2023 to March 2024.

Month Year	Rainfall Received	Mean Rainfall
November 2023	173.0 mm	96.5 mm
December 2023	115.0 mm	127.8 mm
January 2024	592.0 mm	142.8 mm
February 2024	113.0 mm	158.4 mm
March 2024	111.0 mm	140.7 mm

Luscombe Alert (Station 040345) extracted from the Bureau of Meteorology 2024

Table 5: Rainfall received compared to the mean rainfall data – October 2024 to February 2025.

Month Year	Rainfall Received	Mean Rainfall
October 2024	114.0 mm	89.7 mm
November 2024	188.5 mm	81.8 mm
December 2024	260.5 mm	121.2 mm
January 2025	124.0 mm	173.0 mm

Windaroo (Station 040973) extracted from the Bureau of Meteorology 2024

On the 19 December 2023, after receiving heavy rainfall over the weekend, the crossing was inspected and the high rainfall resulted in the rainwater going down the drain, and a washout near the headwall occurred (refer **Photo set 3**).



Photo set 3: Washout at Headwall, photos dated 19 December 2023.

On the 8 January 2024, the crossing was inspected again, following heavy rainfall over the Christmas period. The heavy rainfall results in the crossing being damaged again, requiring a complete re-build once the rainfall had ceased (refer **Photo set 4**).



Photo set 4: Damage to crossing, dated 8 January 2024.

The crossing was inspected on the 18 February 2024 following significant rainfall received on the 16 February 2024. The crossing was damaged again, requiring re-construction.

Boral had construction contractors ready to commence the rebuild of this crossing from June 2024. Following construction, the design of the crossing will hold against such weather events, providing functional access to expedite the planned management actions safely and effectively.

During the Year 4 reporting period the crossing was completed at the (end of June 2024) which allowed access into the offset area by vehicle.

Fireland were commissioned to undertake an assessment of the firelines and access tracks in August 2024 following the completion of the crossing. The assessment was to understand the condition of the tracks for fire management purposes but also accessibility for implementation of offset management requirements. The previously established tracks had not been inspected nor maintained for over 10 years and the site has been subject to significant weather events over recent years.

On completion of this inspection, it was identified that significant works were required to reconstruct the fire lines and access tracks due to severe erosion and vegetation growth. As well as clearing of some regrowth vegetation, in additional local approvals.

Fireland were then engaged in September 2024 to begin reconstruction of the firelines. Works continued until October 2024 however due to a neighbour's complaint to regulatory authorities regarding reconstruction activities within the offset area, works ceased until the matter was resolved with regulatory authority. Due to the delay in resolution (e.g. regulatory inspection etc.), the work was further delayed and were ceased due to the onset of the wet season in QLD (November to April).

Works are expected to recommence May 2025, following the wet season, now that resolution with the neighbour has occurred.

#### 2.5.7 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 **Figure 3** and **Figure 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 1 ACR reporting period.



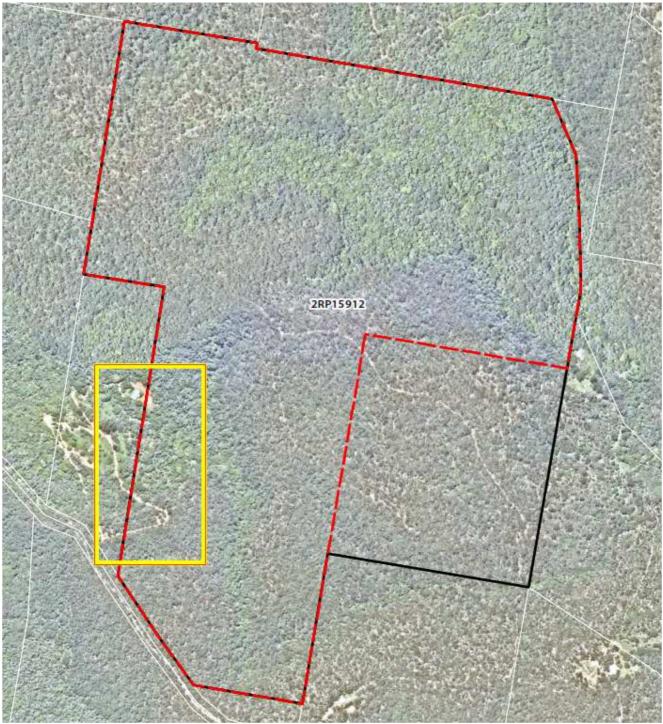
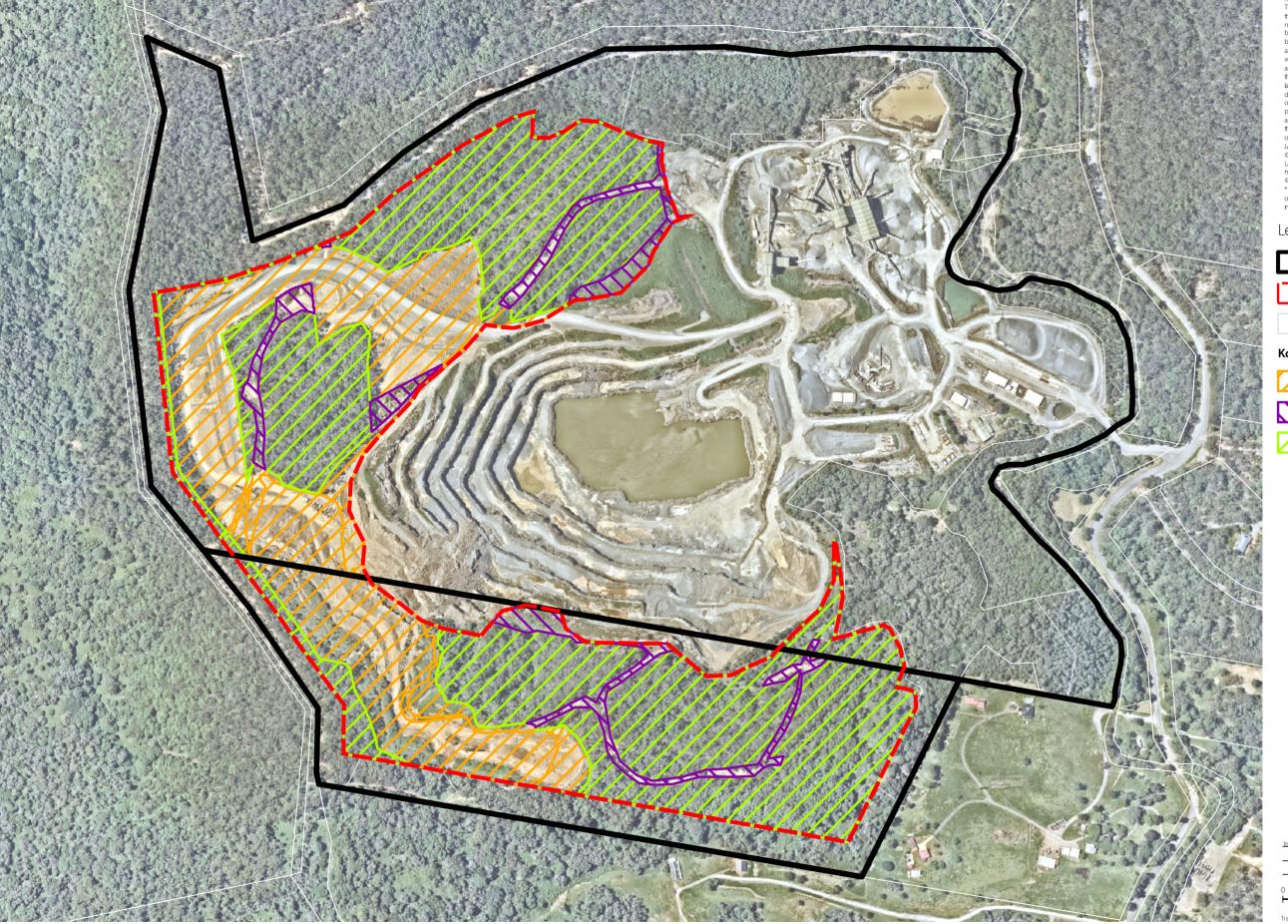


Figure 3: Location of accidental historical encroachment by neighbour, discovered during surveying of offsets site boundary.



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:
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 and 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. the Saunders Havill Group. Unless a development otherwise, this is not an approved plan. Layer Sources OState of Queensland (Department of Resources) 2025. Updated data oxillable at http://qlspatial.information.qld.gov.au/catalogue/ ONearmap, 2025

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

#### Legend

Project Site



Project Area



Qld DCDB

#### **Koala Critical Habitat Areas**



Previous years' KCH clearing total [13.28 ha]

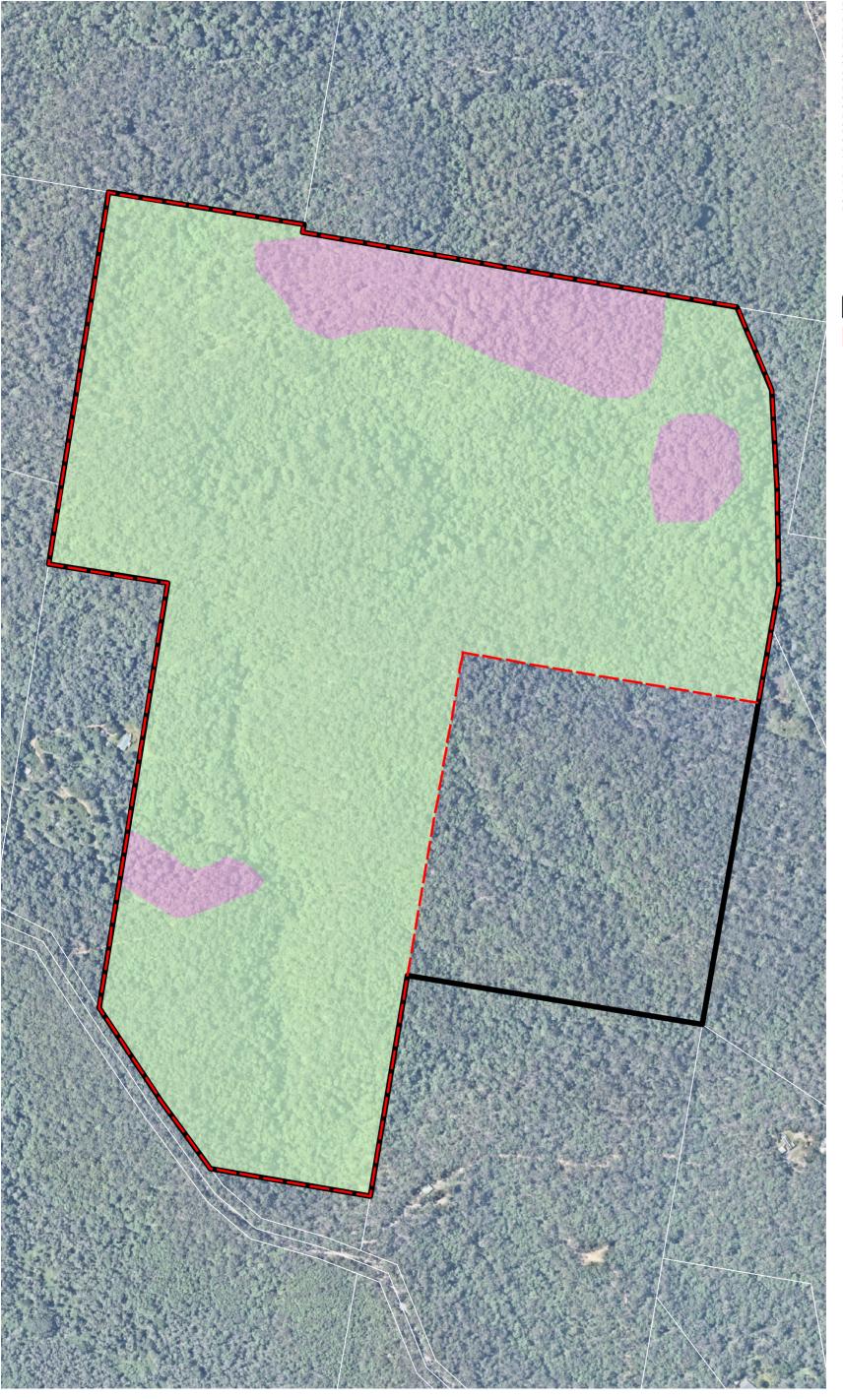


Year 4 KCH Clearing [2.28 ha] Remaining KCH [22.06 ha]





## 2. Offset Area Management Zones



Notes:
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Layar Sources

State of Queensland (Department of Resources) 2025.

Updated data available at http://qldspatialinformation.qld.gov.au/catalogue/

Nearmap. 2025

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#### Legend

Qld DCDB

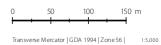
Offset Site

Offset Area

Management Zones

Remnant Vegetation Management Areas

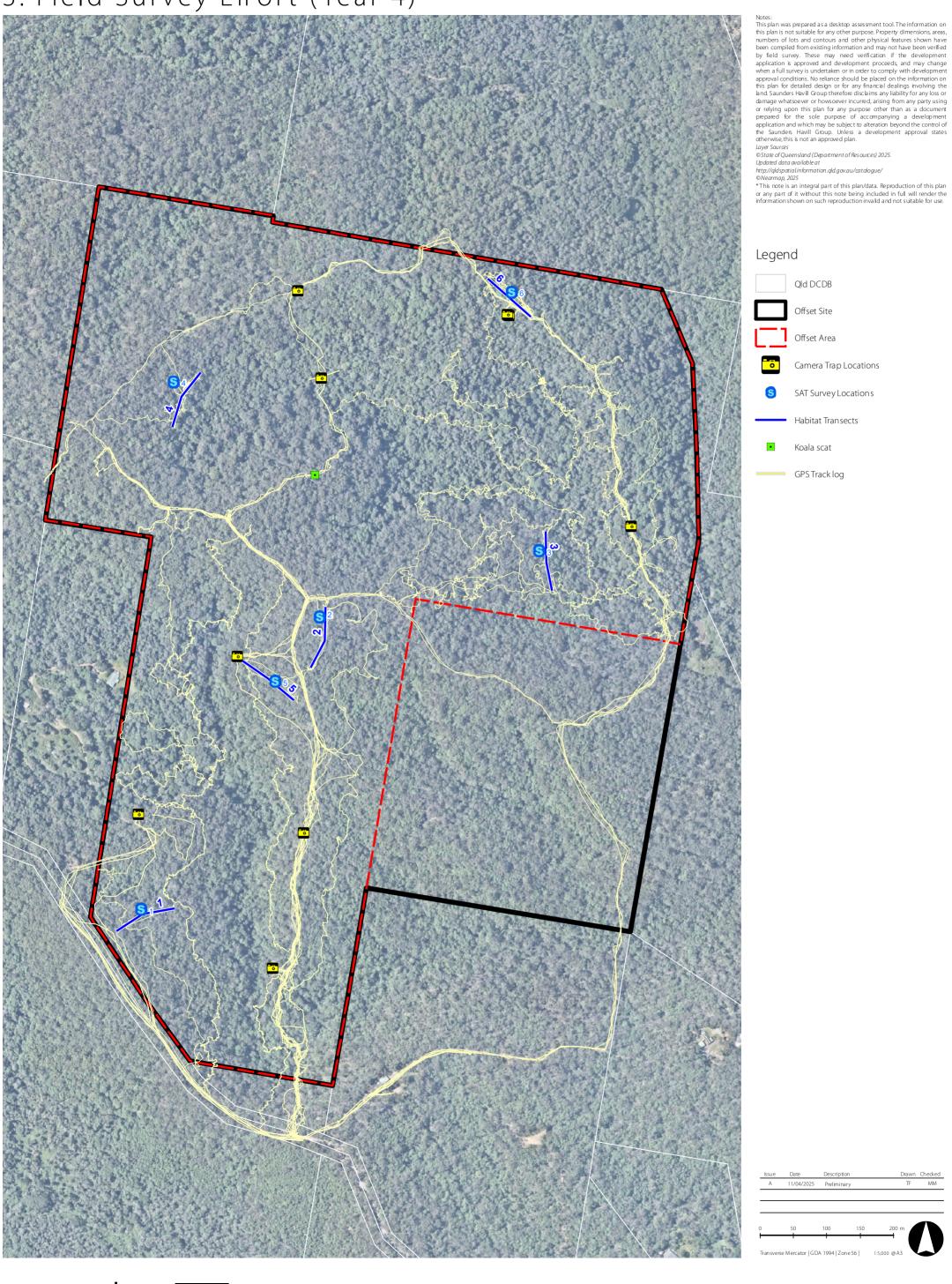
Habitat Rehabilitation Areas







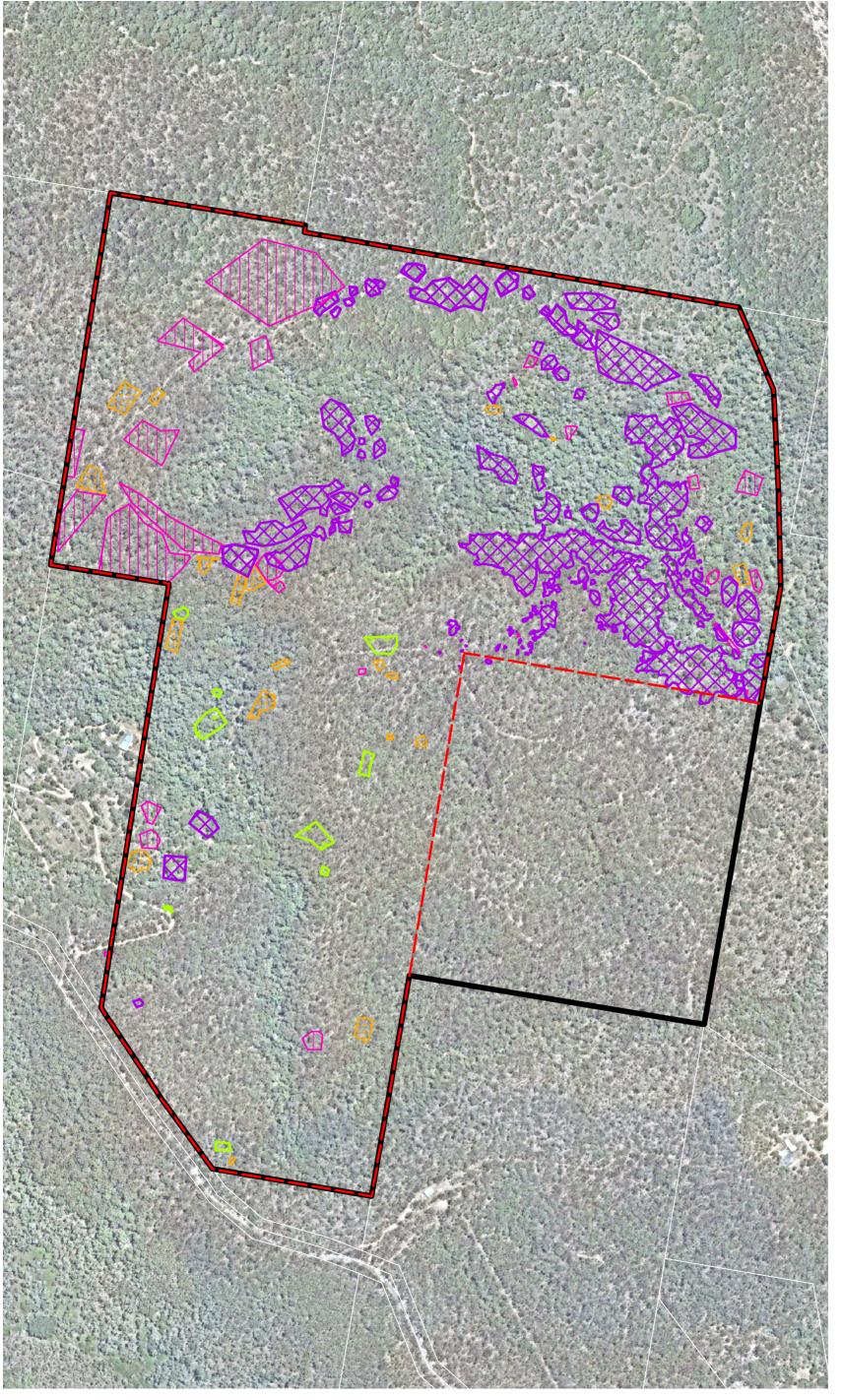
## 3. Field Survey Effort (Year 4)







# 4. Weed Mapping (Year 4)



Notes:
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Nearmap. 2025

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#### Legend

Offset Site

Offset Area Qld DCDB

#### **Weed Mapping Results**

Treated Areas (Scattered to Low Density)



Scattered Weeds



Medium Density



High Density





## 5. Offset Site Weed Treatment Areas



Notes:
This plan was prepared as a desktop assessment tool. The information on this plan is not suitable for any other purpose. Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not have been verified by field survey. These may need verification if the development application is approved and development proceeds, and may change when a full survey is undertaken or in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land Saunders Havill Group therefore disc hims 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.

Layar Sources

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Updated data available at http://qldspatialinformation.qld.gov.au/catalogue/

Nearmap. 2025

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#### Legend

Offset Site

Offset Area

Qld DCDB

Weed Treatment Areas (Years 1, 2 and 3)

Weed Treatment Areas (Year 4)





## 2.6. Offset Management Plan

A review of the OMP commitments and implementation is provided in **Table 6**.

Table 6: Offset Management Plan implementation

Management Action	Commitment	Evidence / Comments / Status
OMP 1	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.	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.  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

Management Action	Commitment	Evidence / Comments / Status
		The crossing was inspected on the 18 February 2024 following significant rainfall received on the 16 February 2024. The crossing was damaged, requiring further re-construction.
		Construction contractors were engaged by Boral to commence the rebuild of this crossing, with completion of the access track and crossing in June 2024. Following construction, the design of the crossing will hold against such weather events, providing functional access to expedite the planned management actions safely and effectively.
		Bushcare Services continued treating WONS in the southern portion the site (refer <b>Plan 5</b> ) due to the lack of suitable access during the Year 4 reporting period. Once improved access to the offset site is available further weed management can occur in northern areas.
		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 and safely.
		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.
	Rehabilitation and Regeneration Management Plan  Management measures for rehabilitation and regeneration include:  Baseline mapping to identify rehabilitation and regeneration areas and development of a rehabilitation plan specifying techniques and species to	
OMP 2	<ul> <li>be utilised will be completed within 12 months of commencement of the action.</li> <li>Rehabilitation areas are to consist of one canopy tree per 10m², three shrubs per 10m² and one groundcover per 2m². Where natura regeneration is the preferred approach, infill planting will be implemented where regeneration has been unsuccessful after three years.</li> </ul>	Treatment of WONS is currently being carried out across the offset area which are required works leading into the commencement of regeneration and infill planting. As discussed in <b>Section 2.5.6</b> , on-going access issues has resulted in Weed Management being limited to the southern and central portions of the

Management Action	Commitment	Evidence / Comments / Status
	<ul> <li>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.</li> </ul>	As such, this is considered a non-compliance and will be discussed further in <b>Section 4</b> .
DMP 3	A Voluntary Declaration will be placed over the offset area to legally secure the	The Proponent legally secured the offset via a Voluntary Declaration under the Vegetation Management Act 1999 on the 22 February 2019. In accordance witl Condition 5, the offset was legally secured prior to the official commencemen of the action on the 3 March 2021. Evidence was provided in the Year 1 ACR.
OMP 4	<ul> <li>Management measures for the control of feral or unwanted domestic dogs across the offset site include:         <ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>Install appropriate signage informing the area is under feral control.</li> </ul> </li> </ul>	Canis lupus familiaris (wild dogs), dog prints were observed across the offset are during baseline surveys. 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.  Site access during Year 1, Year 2, Year 3 and Year 4 has been highly restricted due to the main access track being severely eroded, with the above-average rainfa 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



for monitoring report).

Management Action	Commitment	Evidence / Comments / Status
		Signage will be installed as a component of the commencement of on-site trapping and pest species management for safety and in compliance with the conditions.
	Koala Habitat Quality Management Plan	
	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.	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.
	The habitat quality monitoring is to be undertaken at six (6) permanent transect relocations established during baseline habitat quality score assessments within the koala offset area.  The total area of the offset site is 77 ha consisting of non-remnant vegetation and three REs, which are sized as follows:  32.6 ha of RE12.11.3  37.5 ha of RE12.11.5	
OMP 5		Annual habitat quality monitoring of Koala habitat utilising the MHQA methodology was conducted at six permanent transect locations across the offset area in September 2024. 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 <b>Plan 3</b> ).
	habitat quality score of eight (8)). The habitat quality monitoring is to be reported in	Year 4. Habitat quality of all Assessment Units remained constant with Year 3 results.  Koala scats were recorded during SAT surveys at three (3) of the transect
	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.	
OMP 6	Bushfire Management Plan  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	across the site to reduce risk of bushfire.
	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.	A Burn Plan was developed for the site by Fireland in January 2024 in accordance

Management
Action

Evidence / Comments / Status

Management measures will be outlined in the BMP for the control of bush fire across Burn Plan forming a component of these management measures. the offset area but will include:

- 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 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.

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 unsuitable weather conditions and issues in October 2024 with complaints made to regulators by neighbours due to their uncertainty about the nature of the fire management works. These approvals and the issues with obtaining them is detailed under **Section 2.5.6** and within **Section 4**.

Table 7: Modified Habitat Quality Assessment Scores – Year 4

Condition characteristics	Max. score	Score (RE12.11.3)	Score (RE12.11.5)	Score (RE12.11.10)	Score(non-remnant)
Site Condition (30%)					
Recruitment of woody perennial species	5	5	5	5	5
Native plant species richness - trees	5	5	5	2.5	2.5
Native plant species richness - shrubs	5	2.5	2.5	2.5	2.5
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	5	3
Tree canopy cover	5	5	5	5	5
Shrub canopy cover	5	5	3	5	3
Native perennial grass cover	5	5	3	1	5
Organic litter	5	5	5	5	5



Condition characteristics	Max. score	Score (RE12.11.3)	Score (RE12.11.5)	Score (RE12.11.10)	Score(non-remnant)
Large trees	15	5	15	5	5
Coarse woody debris	5	5	5	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	72.5	84.5	70.16	59.5
Site condition score (out of 3)	3	2.18	2.54	2.10	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
<b>Ecological corridors</b>	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	40	45	40	40
Species stocking rate score (out of 4)	4	2.29	2.57	2.29	2.29
Unit Scores Total	(rounded)	7.03	7.68	6.96	6.64

Table 8: Comparison of MHQA Scores between baseline, Year 1, Year 2, Year 3 and Year 4

<b>Biocondition Score</b>	Baseline	Year 1 (2021)	Year 2 (2022)	Year 3 (2023)	Year 4 (2024)	Comment
RE 12.11.3						

EPBC 2016/7797 27 Saunders havill group

<b>Biocondition Score</b>	Baseline	Year 1 (2021)	Year 2 (2022)	Year 3 (2023)	Year 4 (2024)	Comment	
Site Condition	2.13	2.12	2.12	2.18	2.8	Baseline survey transects	
Site Context	2.57	2.57	2.57	2.57	2.57	were completed in different locations, resulting in	
						variations to the MHQA scores. However, the Year 1, Year, Year 3 and Year 4 locations were consistent.	
Species Stocking Rate	2.57	2.57	2.57	2.29	2.29	The Year 1 and Year 2 site condition remained steady, while there has been a slight decrease in overall score recorded in Year 3 and Year 4.	
			RE 12.1	1.5			
Site Condition	2.26	2.33	2.45	2.54	2.54	Baseline survey transects	
Site Context	2.57	2.57	2.57	2.57	2.57	were completed in different locations, resulting in	
Species Stocking Rate	2.57	2.57	2.29	2.57	2.57	variations to the MHQA scores. However, Year 1, Year 2, Year 3 and year 4 locations were consistent.	
						Site condition has remained stable in Year 4 to levels recorded during Year 3.	
			RE 12.1	1.10			
Site Condition	2.15	1.97	1.95	2.10	2.10	Baseline survey transects	
Site Context	2.57	2.57	2.57	2.57	2.57	were completed in different locations, resulting in	
						variations to the MHQA scores.	
Species Stocking Rate	2.57	2.57	2.29	2.29	2.29	However, Year 1, Year 2, Year 3 and Year 4 locations were consistent, and site	



<b>Biocondition Score</b>	Baseline	Year 1 (2021)	Year 2 (2022)	Year 3 (2023)	Year 4 (2024)	Comment
						condition has remained steady across Year 3 and Year 4.
			Non-r	emnant		
Site Condition	-	1.82	1.79	1.79	1.79	No surveys were completed
Site Context	-	2.57	2.57	2.57	2.57	during Baseline surveys, thus results from the Year 1
Species Stocking Rate	e -	2.29	2.57	2.29	2.29	surveys are used as the baseline comparison. This transect will monitor the rehabilitation efforts within the non-remnant areas. Year 1, Year 2, Year 3 and year 4 locations remain consistent with a slight decrease in site condition to levels recorded during Year 1.
						Further, no scats were observed during Year 4 surveys, resulting in a decrease in scoring for the species stocking rate during Year 3 and Year 4.



# 3. EPBC Conditions and Compliance

**Table 9** 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 9: 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.		Plan 1 shows the clearing of Koala critical habitat that has occurred within the impact area.  A total of 15.56 ha has been cleared in total which includes 2.28 ha cleared during Year 4.
3	The person taking the action must implement the Offset Strategy.	Compliant	The Project is compliant with implementing the Offset Management Plan, refer <b>Table 5</b> .
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.



<b>Condition Number</b>	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;	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;	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.	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 Proj with this con			liant	Evidence
	to ensure the protection of EPBC Act listed species on the project site. The Environmental Management Plan must include:					
<b>7</b> a	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 (Brachychiton 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 <b>Year 1 ACR</b> .
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 SHG are responsible for maintaining accurate records of all activities associated with the action.  No request from the Department was made during the Year 4 reporting period.



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 4 was 2 February 2025, the ACR is due to be published to Boral's website by no later than the 3 May 2025 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 during the Year 4 reporting period.
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 during the Year 4 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;		No revisions to the management plans were made during the Year 4 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 during the Year 4 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 during the Year 4 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 during the Year 4 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 during the Year 4 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 during the Year 4 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 during the Year 4 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 during the Year 4 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	Not applicable	No revisions to the management plans were made during the year 4 reporting period.



Condition Number	Condition	Is The Project compliant with this condition?	Evidence
	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.	Not applicable	The action commenced on 3 February 2021.
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 and Rehabilitation

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, Year 2, Year 3 and Year 4 attributed to ongoing access issues. Areas of weed management has been completed in the southern portion of the offset site where access was gained by the 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, and was being actively driven by Boral. in Year 2 to attempt to progress the installation of minor tracks to provide for management purposes. Approval was granted from Gold Coast City Council in April 2023, with works commencing in May 2023.

As discussed in **Section 2.5.1** and **Section 2.5.6**, Boral has attempted to provide safe access for the contractors by expediting construction for May 2023 as soon as the approval was received in April 2023. However, additional operational works requirements by local council caused several months delay in allowing the works to occur and in conjunction with the significant rainfall that occurred in November, December 2023, January, February, March, October, November, December 2024 and January 2025, the crossing has been impacted in three separate occasions, resulting in multiple re-constructions of the crossing. This crossing has continued to affect vehicle access into the site to allow contractors to safely and effectively work. However, following further reconstruction required in February 2024, the crossing was rebuilt mid 2024.

Construction contractors were engaged by Boral to commence the rebuild of this crossing, with completion of the access track and crossing in June 2024. Following construction, the design of the crossing will hold against such weather events, providing functional access to expedite the planned management actions safely and effectively.

As demonstrated in **Plan 5**, areas of the southern portion of the offset area were treated by Bushcare Services. A large area of WONS was treated during Year 4, 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, 2, 3 and 4, combined with extreme rain events, rendering access even more difficult, has led to Boral preparing to complete the remainder of the site weed and planting objectives following the reconstruction of the crossing, via increased numbers of contractors a revision of weed treatment timeframes over the 24-month period.

However, as the entire offset area was not treated, this is a non-compliance under the OMP specifications (Condition 6). It is acknowledged that

Further, due to the ongoing access issues and the offset area not being entirely treated for WONs, this has resulted in a flow on affect to rehabilitation and regeneration efforts. Areas that require infill planting have also not been completed due the offset area not being able to provide vehicle access to support transfer of

seedlings and sufficient water to support early stages of regenerative growth. As rehabilitation was not commenced within three years of commencement of the action, this is considered a minor non-compliance under the requirements of the EPBC Act OMP (Condition 6).



### 4.2. Bushfire Management

A Bushfire Management Plan has been completed for the offset site, provided in the Year 1 ACR. 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 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 throughout previous reporting years.

The inaccessibility of the site resulted in on-ground Bushfire Management actions, identified within the BMP, not commencing during the Year 2 reporting period, where the BMP stated a prescribed burn in FMU2 should have been completed, which was unable to safely be completed. This was considered a minor non-compliance under Condition 6.

The BMP stipulated that a prescribed burn of FMU 5 be completed in 2024. 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 Burn Plan incorporates a burn map, complexity ratings, pre-burn works order, a risk assessment and contingency maps.

The prescribed burn for FMU 5 was not completed during the Year 4 reporting period, due to unsuitable weather conditions, which followed complications with the reconstruction of the fire lines on the offset site. Complaints by neighbours due to lack of understanding of works implementation of these fire lines, led to the enforcement of cessation of activity by Gold Coast City Council and other regulators in October 2024. Following, resolution with the neighbour and cessation of the wet season, leading into more suitable fire management conditions,, works are expected to recommence from May 2025.

Refer to **Appendix E** for Burn Plan to be implemented.



# 5. Appendices

#### Appendix A

EPBC Approval (EPBC 2016/7797)

#### Appendix B

SHG camera trapping images

#### Appendix C

Non-native Vertebrate Pest Monitoring Reports Year 4 – Biodiversity Australia

#### Appendix D

Weed Management Record Sheets Year 4 – Bushcare Services

#### Appendix E

Burn Plan/Fire - Fireland

#### 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

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name and position James Barker
Assistant Secretary

Assessments and Governance Branch

date of decision

signature

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 Attachment A.
- 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.
- 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:
  - 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;
  - b. detail of the proposed legal mechanism and timeframes for securing the offset area(s);
  - c. a map of the offset area(s) in relation to other habitats and biodiversity corridors;
  - d. information about how the offset area(s) provide connectivity with other **koala habitat** and biodiversity corridors;
  - e. a description of the current condition (prior to any management activities) of the offset area(s), including baseline survey data;
  - f. 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;
  - g. performance and completion criteria for evaluating the management of the offset area(s), and detailed criteria that will trigger corrective actions;
  - h. a detailed program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;
  - i. 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: <a href="https://www.ehp.qld.gov.au/wildlife/koalas/koala-ecology.html">www.ehp.qld.gov.au/wildlife/koalas/koala-ecology.html</a>.

**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.

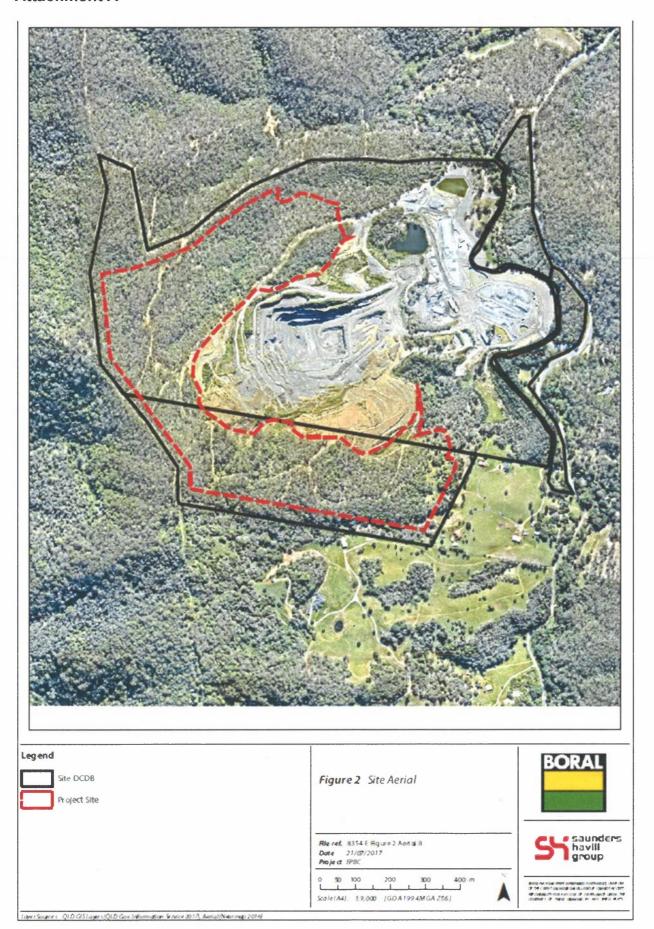
**Minister**: the Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and includes a delegate of that Minister.

**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 <u>Appendix A.</u>

#### **Attachment A**



# Appendix B

SHG camera trapping images

















Common Brushtail Possum European Red Fox

# Appendix C

Non-native Vertebrate Pest Monitoring Reports Year 4 – Biodiversity Australia





# LEADING THE WAY IN ENVIRONMENTAL MANAGEMENT



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## **Document Control Page**

#### **Version Control**

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0.1	Draft	Jessica Hobart	Tiffany Sieuwerts	04/03/2024
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#### **Distribution Control**

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#### 1. Introduction

Biodiversity Australia Pty Ltd (Bio Aus) was contracted by Boral to conduct Vertebrate Pest Management at Ormeau Quarry's offset area. Biodiversity Australia was engaged to assess and manage wild dogs (*Canis lupus familiaris*) within the site. As such, a monitoring program was undertaken during which, the monitoring of wild dogs was the focus of feral animal control. The report contains the methodology and results of these works.

#### 1.1 Objectives

The objectives of the project were to:

- Establish the approximate size of the feral canid populations within Ormeau Quarry's offset area; and
- Provide data-based recommendations for future pest animal management at Ormeau Quarry's offset area.

#### 1.2 Site Location and Description

The Ormeau Quarry offset is located on Upper Ormeau Road, Ormeau, approximately 10km from Pimpama township (Figure 1). Boral's offset area for the Ormeau Quarry is approximately 38 hectares. The site is surrounded by state forest, with established housing to the east. Tamborine National Park lies to the southwest of the site. Monitoring efforts were focused within areas stipulated within *Vertebrate Pest Management Plan* (2021).

The site itself consist of steep inclines and escarpments, with open eucalypt woodland and forests dominating. The site is consistent with the state mapping, with the following RE's present;

- RE 12.11.3 (Least Concern): Eucalyptus siderophloia, E. propinqua +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. acmenoides open forest on metamorphics +/- interbedded volcanics
- RE 12.11.5 (Least Concern): Corymbia citriodora subsp. variegata woodland to open forest +/- Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics
- RE 12.11.24 (Least Concern): Eucalyptus carnea or E. tindaliae, Corymbia intermedia +/- E. siderophloia or E. crebra woodland on metamorphics +/interbedded volcanics

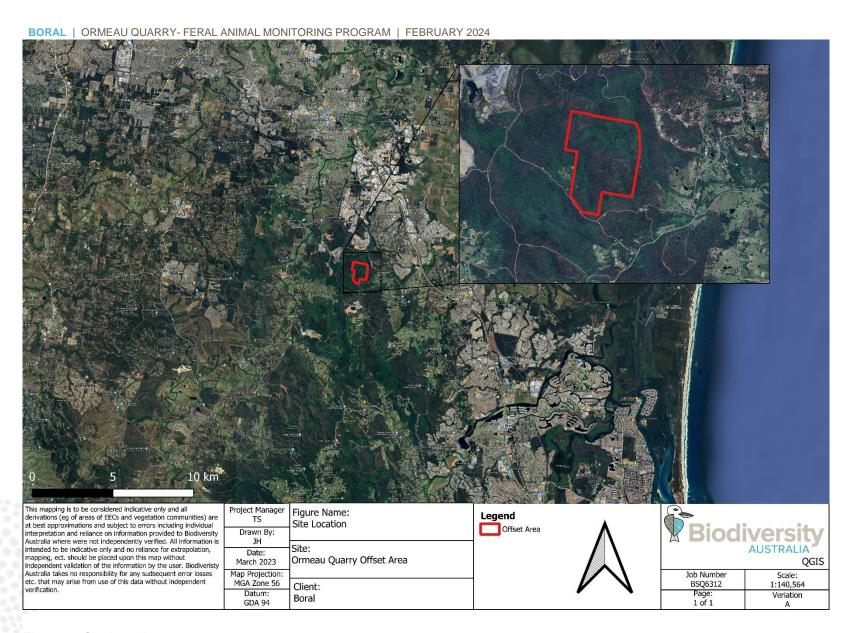


Figure 1 - Site Location



#### 1.3 Target Species

#### 1.3.1 Wild dog (Canis lupus familiaris)

The term wild dog encapsulates any wild-living dogs including dingoes, feral dogs and hybrids. Dingoes were initially brought to Australia by Asian seafarers, approximately 4000 years ago (Glen et al., 2007). Domestic dogs then arrived in Australia as domestic pets of European settlers. It was from here that domestic dogs escaped to or were released into the wild. It is not possible to distinguish between pure dingoes and hybrids purely by colour or appearance. To determine this, DNA tests can be conducted using hair follicles or the ear tips of humanely killed wild dogs.

Wild dogs cause significant damage to the agricultural industry through their predation on livestock and are a restricted invasive animal under the *Biosecurity Act 2014*. They preferentially feed on small and medium-sized mammals, including native mice, dunnarts, bandicoots and wallabies, but they will prey upon a variety of native and exotic animals, including insects, kangaroos and livestock. They are implicated in the decline of several native species. As opportunistic feeders they may also enter sites where human activity has made food easily available, such as rubbish disposal areas.

Control methods for wild dogs include baiting, trapping, exclusion fencing, shooting and the use of guard animals. Donkeys and alpacas are often used to ward off wild dogs on cattle or sheep farms.



### 2. Methodology

Passive infrared monitoring cameras were used to obtain baseline data on levels of pest animal abundance, distribution, and activity throughout the Ormeau Quarry Offset site. Monitoring cameras were placed along within the same vicinity as 2023 camera monitoring activities, including along tracks and high traffic areas. Camera traps were utilised for 14 consecutive days at five locations. Passive infrared (PIR) camera traps were installed in selected areas, mapped using a GIS system, and given a unique identifier (Figure 2).

Cameras were installed on the 15<sup>th</sup> of February 2024 and left in place for fourteen (14) days. Camera outputs were formally assessed at the end of the monitoring period, and the following data collected:

- Species;
- Number of animals seen;
- Sex of animals (where this could be determined);
- Direction of travel and activity observed;
- Camera trap number; and
- Time of day.

Data collected during the monitoring provided insight on wild dog travel routes and indicated activity levels will be used to assist in trap placement and key areas for control. Opportunistic data on other feral animal species, particularly foxes and feral cats collected throughout the data analysis component of camera monitoring will also be used to contribute to understanding of feral animal activity levels both prior to and following control efforts.



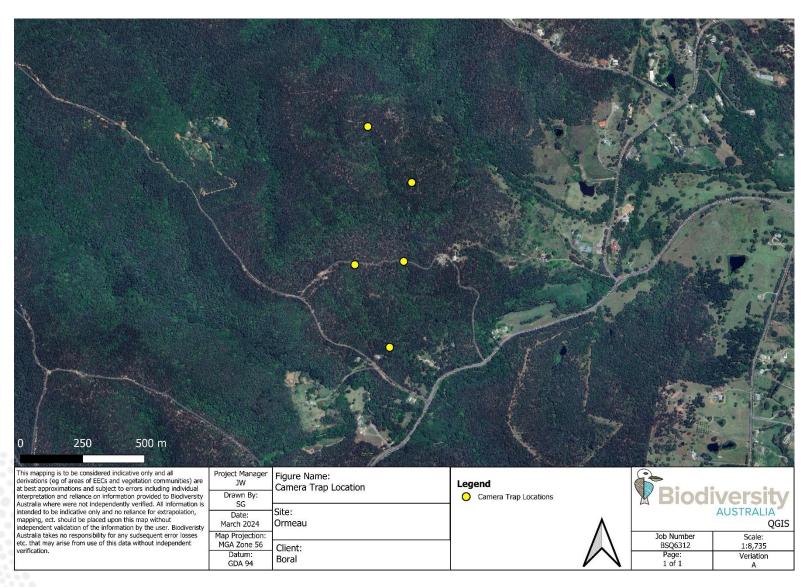


Figure 2 - Camera Trap Locations



#### 3. Results

Cameras were utilised for 14 consecutive days (15<sup>th</sup> February – 28<sup>th</sup> February 2024) at five different locations. Table 1 displays all fauna captured within each camera trap. Appendix 1 displays some Fauna that were captured.

No feral dogs or cats were observed throughout the monitoring period, with the European Red Fox (*Vulpes vulpes*) being the only feral species observed.

Opportunistic monitoring of native animals was also captured; Red-necked Wallaby (*Macropus rufogriseus*) (19), and Australian Brush-turkey (*Alectura lathami*) (1).

Table 1: Camera monitoring results

Days	Camera 1 (ID: 3.01)	Camera 2 (ID: 3.02)	Camera 3 (ID: 3.03)	Camera 4 (ID: 3.04)	Camera 5 (ID: 3.05)
	-27.808120727539062, 153.2247888555829	-27.8111924, 153.2260508	-27.8052403, 153.226953	-27.8032194, 153.2251578	-27.8080883, 153.2266251
1	Nil	1 Red Fox	Nil	Nil	Nil
2	Nil	1 Red Fox	Nil	Nil	Nil
3	Nil	Nil	Nil	Nil	Nil
4	Nil	Nil	1 Red-necked Wallaby	Nil	2 Red-necked Wallaby
5	1 Red-necked Wallaby	1 Red-necked Wallaby	1 Red-necked Wallaby	Nil	Nil
6	Nil	Nil	Nil	Nil	Nil
7	1 Red-necked Wallaby	1 Red-necked Wallaby	Nil	1 Unidentified animal	1 Red-necked Wallaby
8	Nil	Nil	Nil	Nil	Nil
9	Nil	Nil	Nil	Nil	1 Red-necked Wallaby
10	Nil	1 Brush Turkey	Nil	Nil	1 Red-necked Wallaby
11	Nil	Nil	Nil	Nil	Nil
12	Nil	1 Red-necked Wallaby	Nil	Nil	1 Red Fox 4 Red-necked Wallaby (1 with Joey)
13	Nil	1 Brush Turkey	Nil	Nil	1 Red-necked Wallaby
14	1 Red-necked Wallaby	Nil	Nil	Nil	1 Red-necked Wallaby 1 Swamp Wallaby

### 4. Discussion

The 2024 camera locations followed the 2023 camera locations that were agreed upon, due to inaccessibility to large portions of the offset area. The northern portion of the offset area was inaccessible due to no fire trails, tracks or bridges for access. The Biodiversity Australia Senior Pest Officer followed the Management Plan where possible, however final locations as per Fig 2 were decided upon based on inaccessibility restraints and suggestions from the Quarry Environmental Officer.

Monitoring site locations generated a different composition of feral and native animals. Camera 4 lacked animal presence, other than a single unidentifiable photo. Camera 2 and 5 presented Red Fox observations, being particularly abundant around Camera 2. Camera 5 showed the most animal presence, with thirteen (13) fauna observations in total. No feral cats or dogs were captured throughout this monitoring period.



### 5. Recommendations

For consistency and to address trapping success it is recommended to follow the camera locations as per Fig 2 above. However, if accessibility improves locating a camera in the south-eastern area as per the 2022 proposed camera sites in the Vertebrate Pest Management Plans would be suggested. This includes the installation of fire trails and tracks, and a bridge over waterways.



# 6. Appendix 1 – Camera Trap Photos

Please note the full set of monitoring photos are available upon request.

#### CAMERA 1



Photo 1 - Red-necked Wallaby

#### CAMERA 2



Photo 2 - European Red Fox



Photo 3 - Australian Brush-turkey

#### CAMERA 3



Photo 4 - Red-necked Wallaby

#### CAMERA 4



Photo 5 - Unidentified Fauna

#### CAMERA 5



Photo 6 - European Red Fox



Photo 7 - Red-necked Wallabies



Photo 8 - Swamp Wallaby





# LEADING THE WAY IN ENVIRONMENTAL MANAGEMENT



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### **Document Control Page**

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### 1. Introduction

Biodiversity Australia Pty Ltd (Bio Aus) was contracted by Boral (The Client) to conduct Vertebrate Pest Management at Ormeau Quarry's Offset Area (The Site). Biodiversity Australia was engaged to undertake these works in line with the Saunders Havill Group *Vertebrate Pest Management Plan* (VPMP) (2021). As such, a monitoring program was undertaken to determine the feral/unwanted species present within the offset area. This program is conducted on a yearly basis, with 2025 being the third year of works.

A total of five (5) Passive infrared (PIR) cameras were installed within January 2025, as per the VPMP. Due to access issues in the north and west of The Site, three (3) of these PIR cameras were installed outside of The Site. Access issues include damage/obstructions to tracks and bridges present within The Site, due to major storms that have occurred within Southeast Queensland (SEQ).

#### 1.1 Objectives

For the offset area to remain compliant, the projects objective is to assess three target species and monitor their presence within The Site. The VPMP rates them from low to high priority, as below:

- High Priority Feral and unwanted domestic dogs
- Medium Priority Red Foxes
- Low Priority Feral Cats

#### 1.2 Site Location and Description

The Site is located on Upper Ormeau Road, Ormeau, approximately 10km from Pimpama township (Figure 1). Boral's offset area for The Site is approximately 38 hectares. The Site is surrounded by state forest, with established housing to the east. Tamborine National Park lies to the southwest of the site. Monitoring efforts were focused within areas stipulated within *Vertebrate Pest Management Plan* (2021).

The Site itself consist of steep inclines and escarpments, with open eucalypt woodland and forests dominating. The Site is consistent with the state mapping, which is displayed in Table 1.

Table 1: Regional Ecosystems Present Onsite

RE	Description
RE 12.11.3 (Least Concern)	Eucalyptus siderophloia, E. propinqua +/- E. microcorys, Lophostemon confertus, Corymbia intermedia, E. acmenoides open forest on metamorphics +/- interbedded volcanics.
RE 12.11.5 (Least Concern)	Corymbia citriodora subsp. variegata woodland to open forest +/- Eucalyptus siderophloia/E. crebra, E. carnea, E. acmenoides, E. propinqua on metamorphics +/- interbedded volcanics.
RE 12.11.24 (Least Concern)	Eucalyptus carnea or E. tindaliae, Corymbia intermedia +/- E. siderophloia or E. crebra woodland on metamorphics +/- interbedded volcanics.





Figure 1: Offset Area Location



### 1.3 Target Species

As per the VPMP, three target species are priority within the Site, to monitor and determine presence, as detailed below.

#### 1.3.1 High Priority - Wild & Unwanted Domestic Dogs (Canis lupus familiaris)

The term wild dog encapsulates any wild-living dogs including dingoes, feral dogs and hybrids. Dingoes were initially brought to Australia by Asian seafarers, approximately 4000 years ago. Domestic dogs then arrived in Australia as domestic pets of European settlers. It was from here that domestic dogs escaped to or were released into the wild. It is not possible to distinguish between pure dingoes and hybrids purely by colour or appearance. To determine this, DNA tests can be conducted using hair follicles or the ear tips of humanely killed wild dogs.

Wild dogs cause significant damage to the agricultural industry through their predation on livestock and are a restricted invasive animal under the *Biosecurity Act 2014*. They preferentially feed on small and medium-sized mammals, including native mice, dunnarts, bandicoots and wallabies, but they will prey upon a variety of native and exotic animals, including insects, kangaroos and livestock. They are implicated in the decline of several native species. As opportunistic feeders they may also enter sites where human activity has made food easily available, such as rubbish disposal areas.

Unwanted Domestic Dogs refers to all dogs in which are owned and registered house pets. Due to poor, damaged or ill-equipped fencing, domestic dogs are often found roaming within areas close to their residence. Although domesticated, these dogs still cause significant damage to native wildlife, similar to wild dogs.

#### 1.3.2 Medium Priority – Red Fox (Vulpes vulpes)

Vulpes vulpes (Red fox) is an active canid with a reddish-brown coat and white underparts except for a black tipped nose and black lower legs. Depending on geographic distribution, they can vary in size from 45 to 90 cm in body length and from three to 14 kg in body mass. Red foxes are one of the largest land dwelling, carnivorous mammals in Australia. They are adapted to a wide variety of habitats from deserts to urban environments.

Red foxes in Queensland are primarily carnivorous scavengers and predators, however, are also opportunistic feeders and can consume an enormous variety of animal and plant material. Foxes will consume rabbits, rodents, frogs, birds, insects, fruit, vegetables and grain.

Red foxes will predate upon livestock, mainly lambs and goat kids, and native animals. These pest animals

#### 1.3.3 Low Priority – Feral Cats (Felis catus)

Feral cats (*Felis catus*) differ little in appearance from their domestic counterparts, however when in good condition feral cats have greater muscle development, particularly around the head, neck and shoulders. Coat colour is not uniform either ranging from ginger, tabby, tortoiseshell, grey and black. Coat colour is selected by the habitat, with populations trending towards those coat colours providing the greatest camouflage within the habitat.

These cats are mostly nocturnal with peak hunting activity occurring at dusk and dawn. Eyeshine from this species is a distinctive green colour making it easily distinguishable from other species of this size. During the day they will take refuge within hollow logs, dense clumps of grass, piles of debris, rabbit burrows and hollow limbs in standing trees.

Feral cats have expanded beyond areas of early colonisation and since the 19<sup>th</sup> and 20<sup>th</sup> centuries they were released on farms to combat plague proportions of European rabbits. Feral cats now have a cosmopolitan distribution across Australia and thrive under all climatic conditions.



Studies on the species diets show that 375 feral cats on Maquaire Island can consume 56 000 European rabbits and 58 000 sea birds per year and Legge et al (2020) state that feral cats are implicated in the extinction of 25 mammal species and causing population declines in many other species including *Pezoporus occidentalis* (night parrot) and *Psephotellus pulcherrimus* (paradise parrot).

### 2. Methodology

In accordance with the VPMP, five (5) Passive infrared (PIR) cameras were installed across The Site for eighteen (18) consecutive days (10<sup>th</sup> January – 28<sup>th</sup> January 2025) by a suitably qualified Senior vertebrate pest officer. In line with the VPMP, camera traps were installed within the same vicinity as February 2024 and 2023, to ensure consistency with the data. PIR Camera trap locations were mapped using a GIS system, and given an identification number (Figure 2). Locations were set along established dirt tracks, animal tracks, edges of vegetation and waterways.

Camera outputs were formally assessed at the end of the monitoring period, and the following data collected:

- Species:
- Number of animals seen;
- Sex of animals (where this could be determined);
- Direction of travel and activity observed;
- Camera trap number; and
- Time of day.

Data collected during the monitoring provides insight on pest animal travel routes and indicated activity that the offset area is utilised for. Opportunistic data on other feral animal species and native species is collected throughout the data analysis, will also be used to contribute to understanding of feral animal activity levels both prior to and following control efforts.

### 3. Limitations

In accordance with the VPMP, camera location consistency is required, in order to analyse the movement patterns and activities of the targeted pest species each year compared to the last year. Inaccessibility has been an ongoing issue with The Site, due to inaccessible tracks and bridges, and major storm damage to The Site. The camera trap locations used for the 2025 monitoring, followed the 2023 and 2024 camera locations, in which were agreed upon by The Client. The Biodiversity Australia Senior Vertebrate Pest Officer followed the VPMP where possible, however final locations as per Figure 2, were decided upon based on inaccessibility restraints and agreements made with the Quarry Environmental Officer.



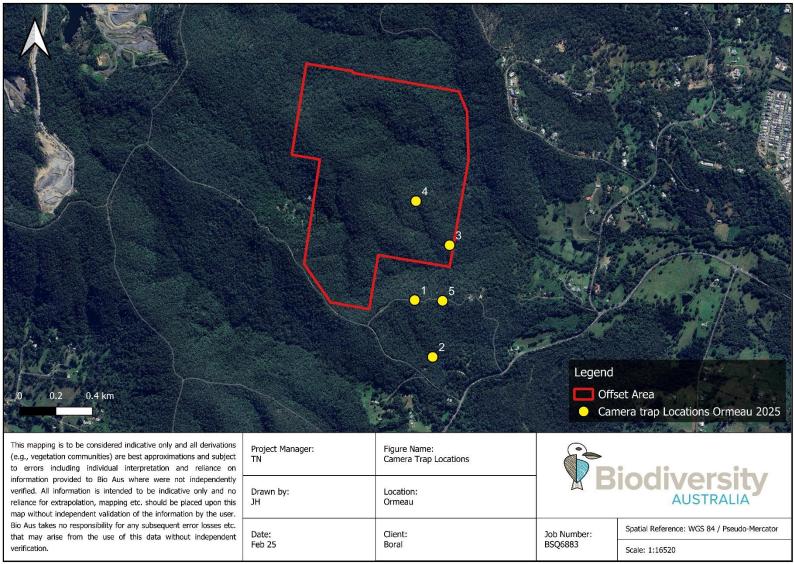


Figure 2: Camera Trap Locations in 2025



### 4. Results

A total of two (2) of the targeted species were observed throughout the 2025 camera monitoring program for The Site. These results are displayed in Table 2.

Table 2: Pest Animal Monitoring Results (Pests Only)

Day	Time of Day (Day or Night)	Camera Trap #	Species	Number Observed	Sex (if determined)	Behaviour Observed
3	Night	2	Red Fox	1	-	Traversing on Track
7	Night	2	Domestic Dog	1	Female	Traversing on Track
7	Night	2	Red Fox	2	-	Traversing on Track
8	Day	2	Domestic Dog	1 Female		Traversing on Track
11	Night	2	Domestic Dog	1	Female	Traversing on Track
11	Night	2	Red Fox	1	-	Traversing on Track
12	Night	2	Red Fox	1	-	Traversing on Track/Sniffing Scents
14	Night	2	Red Fox	1	-	Traversing on Track
17	Night	5	Red Fox	1	-	Traversing on Track

### 4.1 Wild and Domestic Dogs

Within the 2025 Ormeau Offset Area Monitoring program, one (1) domestic dog was observed within The Site. This dog was confirmed domesticated, due to its breed, appearance and the presence of a collar (Appendix 7.1). It is unknown however if this dog is currently owned or missing/abandoned. As detailed in Table 2, this individual was caught on Camera 2, a total of three days, two of which are consecutive. Compared to the baseline survey and previous two years of Biodiversity Australia conducting monitoring, this is the first dog to be captured via monitoring program within The Site. Tracks and signs (e.g. scat) have been observed in previous years and within the baseline data (Saunders Havill Group 2021).



#### 4.2 Red Foxes

Within the 2025 Ormeau Offset Area Monitoring program, seven (7) red foxes were observed within The Site (Appendix 7.2). As detailed in Table 2, these individuals were predominately sighted on camera trap 2, with one sighting on camera trap 5. All behaviour appeared to be traversing the tracks, along with some scenting (sniffing track and air). Compared to 2024 pest monitoring results, 2025 captured an additional four (4) sightings of red foxes within the offset area (Figure 3). This could indicate a potential increase of the red fox population in The Site. This potential increase in the population is likely due to the wet weather SEQ has been experiencing, which would in turn increase the native prey species that the red fox predate on, including bandicoot and wallaby species. Both years had Red Fox sightings at Camera Traps 2 and 5, with Camera Trap 2 being the most abundant both 2024 and 2025 (Figure 3).

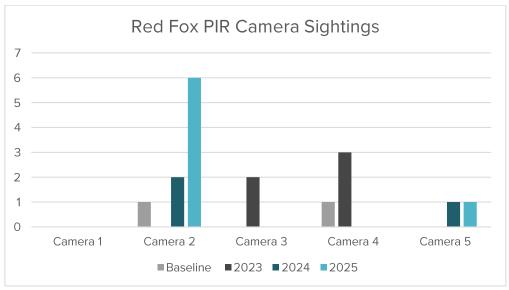


Figure 3: Red Fox Observations to Date

#### 4.3 Feral Cats

The 2025 Ormeau Offset Area Monitoring program; no Feral Cats were observed within The Site. To date, this species has not been observed within The Site.

#### 4.4 Opportunistic Sightings

No non-target pest species as per the VPMP were observed within The Site. Opportunistic sightings of native animals were captured throughout the camera trapping program (Appendix 7.3). A total of fourteen (14) Red-necked Wallabies (*Macropus rufogriseus*) and Swamp Wallabies (*Wallabia bicolor*) (2) were observed. Appendix 7.3 displays some of these captured sightings.



### 5. Recommendations

Recommendations of future works for The Site are detailed in Table 3, which coincide with management actions as per the VPMP.

Action Item	Recommendation
Ormeau Offset Area Tracks & Fences	<ul> <li>Biodiversity Australia recommend that track/bridge issues and damages within the Ormeau Offset Area are addressed to allow for original camera trapping locations to recommence as per the Vertebrate Pest Management Plan (2021).</li> <li>A Fence Audit is recommended, to determine any holes, or damages to the Ormeau Offset Area</li> </ul>
	Fencing, which would allow the movements of the target pest species into the Offset Area.
Wild & Unwanted Domesticated Dog	<ul> <li>It is recommended that the continuation of camera monitoring is conducted, to monitor if the population of wild/unwanted domesticated dogs increases in coming years. It is recommended that these works occur outside of wet weather, so there is an increased chance of capturing any wild dogs or unwanted domesticated dogs traversing or utilising Ormeau Offset Area.</li> </ul>
	<ul> <li>A trapping program for the individual unwanted domesticated dog is detailed in the Red Fox section below, as these two programs will run in conjunction.</li> </ul>
Red Fox	<ul> <li>Biodiversity Australia recommends that a trapping program targeting red foxes occurs, to decrease the population of the pest species presence onsite, and therefore its effect to native wildlife within the Ormeau Offset Area.</li> </ul>
	<ul> <li>Within this program, a single dog cage trap will be installed also, in an attempt to trap the single unwanted domestic dog that is present onsite.</li> </ul>
Feral Cat	<ul> <li>Biodiversity Australia recommends that a continuation of camera monitoring is conducted, to monitor any new potential Feral Cats that may begin to utilise Ormeau Offset Area.</li> </ul>



### 6. References

Saunders Havill Group (2021), Vertebrate Pest Management Plan – Offset Management Plan, Saunders Havill Group for Boral Resources Pty Ltd, February 2025.

Leggge, S Woinarski, J. C. Z Dickman, C.R Doherty, T.S McGregor, H Murphy, B.P (2020) Cat ecology, impacts and management in Australia. Journal of Wildlife Research, vol 47, issue 8, doi: https://doi.org/10.1071/WRv47n8\_ED

Queensland Department of Agriculture and Fisheries (2023) European fox: Vulpes vulpes. Access 11 July 2024. Available at: <a href="https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0019/73810/european-red-fox.pdf">https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0019/73810/european-red-fox.pdf</a>

Queensland Department of Agriculture and Fisheries (2023) Feral cat: Felis catus. Access 11 July 2024. Available at: https://www.daf.qld.gov.au/\_\_data/assets/pdf\_file/0004/61987/feral-cat.pdf

Queensland Government (2024) Wild Dog I Busniess Queensland. Accessed 11 July 2024. Available at: <a href="https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/biosecurity/animals/invasive/restricted/wild-dog">https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/biosecurity/animals/invasive/restricted/wild-dog</a>



### 7. Appendix

### 7.1 A-1: Unwanted Domesticated Dog





### 7.2 A-2: Red Fox (Camera 2)





### 7.3 A-3: Opportunistic Sightings (Native Species)



Red-necked Wallaby



Photo 7 - Red-necked Wallabies



# Appendix D

Weed Management Record Sheets Year 4

- Bushcare Services





Client:	Boral	Project:	Ormeau EPBC Weed Control Aug 24	Time Allocated:	
Date of Work:	28/08/24	Team Size:	4	Supervisor:	Jack Thatcher

Start Time: 6:30 Finish Time: 15:30 Total Working Hours: 34

(30-minute lunch break is assumed)

Vehicle Rego: 498ZMR

	Tasks to Be Undertaken/ Completed			
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Hand weed and cut paint lantana and asparagus	1000	M2	34
2				
3				
4				
5				

	Team Members / Hours Worked on Site													
	Name	Hours			Name	Hours			Name	Hours			Name	Hours
1	Jack Thatcher	8.5		2	Hayden Stewart	8.5		3	Blaine Williams	8.5		4	Odin Mircic	8.5
5				6				7				8		

	WHS – Toolbox Talk									
-	1 Steep slopes	2	Falling branches	3	Isolated work area					
4	4 Public	5	Rubbish, barbed wire	6	Manual handling					



### Herbicide Use

#### Application 1:

Equipment Used	Equipment Used Chemicals Used (active ingredient/trade name)  Active Ingredient Trade Name		Quantity applied		Rate:	Plants treated	Method	
			Trade Name		ml, g, other)	Nate.	riaits tieateu	Method
	$\boxtimes$	Glyphosate	Weedmaster duo	QTY	1000mL	1:1	Lantana, basket asparagus	CSP
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
Total Volume of mixture (litres):								

#### Application 2:

Equipment Used	d Chemicals Used (active ingredient/trade name)  Active Ingredient Trade Name		active ingredient/trade name)	Quantity applied (ml, g, other)		Rate:	Plants treated	Method
			Trade Name				riants treated	IVIETIOU
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
		Т	otal Volume of mixture (litres):					

### Application 3:

<b>Equipment Used</b>	Che	micals Used (activ	ve ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	Method
	Ac	tive Ingredient	Trade Name	(ml, g, other)		Nate.	Traits treated	Wiethou
	☐ Glyphosate			QTY				
	☐ Other			QTY				
		Dye		QTY				
		Adjuvant		QTY				
	Total Volume of mixture (litres):							

#### **Environmental Conditions:**

⊠ Clear	□ Dry	Wind speed (km/hr):	11
☐ Overcast	⊠ Mild	Wind direction (N, E, S, W):	N
☐ Showers	☐ Humid	Temperature (°C):	30

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

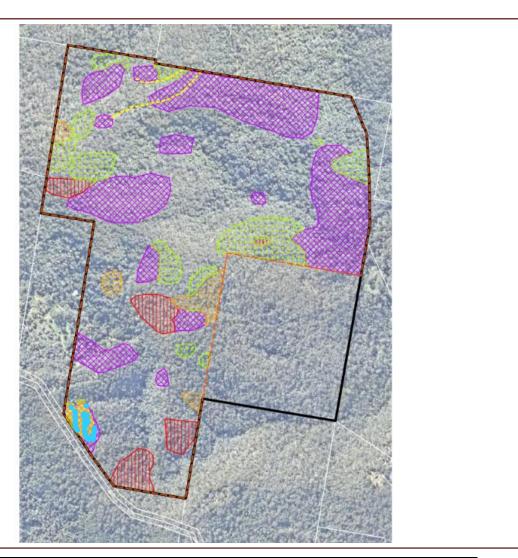


### **Site Notes**

Fauna notes: (significant sightings)		
	Flowering:	
Flora notes:	Fruiting:	
	Germinating:	
	Threatened or significant:	
Provide general comments on the	work undertaken (constrair	nts, wins etc)
Treated dense infestation of lantana	a and sporadic asparagus wi	ith manual removal or cut and paint where applicable
What should be the focus for next t	ime?	
Continue working through dense la	ntana infestation	
Any recommendations for the man	agement of the site?	
Are there any site-specific issues th	at our client should be awa	re of (detail and add photos if necessary)?



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 - lantana clumps after treatment





Photo 2 – lantana clumps after treatment





Photo 3 - treated asparagus and lantana



Photo 4 -			



Photo 6 -



### **Internal Reporting**

Use this section to detail any iss	sues, concerns, wins or requests		
Use this section to log acc			
(if any item is ticked yes, an appro	opriate report must be submitted)		
Vehicle Damage:	Ye	es 🗆	No ⊠
Accident / Incident:	Ye	es 🗆	No ⊠
Equipment Maintenance Required:	Ye	es 🗆	No ⊠
Does anything need restocking?	Ye	es 🗆	No ⊠
Supervisor to Sign: This report represents a true	e and accurate reflection of works undertaken:		
JUllan	28/08/24		
Supervisor Signature	Date		
Bushcare Administration to Sign: This r	eport has been checked and approved		
Administration Signature	Date		



Client:	Boral	Project:	Ormeau EPBC Weed Control Aug 24	Time Allocated:	
Date of Work:	29/08/2024	Team Size:	4	Supervisor:	Jack Thatcher

Start Time: 6:30 Finish Time: 15:30 Total Working Hours: 34

(30-minute lunch break is assumed)

Vehicle Rego: 498ZMR

	Tasks to Be Undertaken/ Completed			
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Treated lantana, asparagus, and prickly pear along Cliff Barrons Rd frontage	12000	M2	34
2				
3				
4				
5				

	Team Members / Hours Worked on Site													
Name Hours Name Hour						Hours			Name	Hours			Name	Hours
1	Jack Thatcher	8.5		2	Hayden Stewart	8.5		3	Blaine Williams	8.5		4	Odin Mircic	8.5
5				6				7				8		

	WHS - Toolbox Talk								
:	1	Steep slopes	2	Falling branches	3	Public			
4	4	Insects, ticks, bull ants	5	Isolation	6	Barbed wire			



### Herbicide Use

#### Application 1:

Equipment Used		Chemicals Used (	active ingredient/trade name)	Qı	antity applied	Rate:	Name Assessed	Method
	Active Ingredient		Trade Name		(ml, g, other)		Plants treated	Ivietnou
	⊠ Glyphosate		Weedmaster duo	QTY	1500mL	1:1	Lantana, asparagus, prickly pear	CSP
	□ Other			QTY				
		Dye		QTY				
		Adjuvant		QTY				
Total Volume of mixture (litres):								

#### Application 2:

Equipment Used	uipment Used Chemicals Used ( Active Ingredient		active ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	Method
			Trade Name	(ml, g, other)			Trants treated	Wiethou
	☐ Glyphosate			QTY				
	☐ Other			QTY				
		Dye		QTY				
	☐ Adjuvant			QTY				
	Total Volume of mixture (litres):							

### Application 3:

Equipment Used	Che	micals Used (activ	ve ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	Method
	Ac	tive Ingredient	Trade Name	(ml, g, other)		nate.	Tiants treated	Wiethou
	☐ Glyphosate			QTY				
		Other		QTY				
		Dye		QTY				
	☐ Adjuvant			QTY				
	Т	otal Volume of mixture (litres):						

#### **Environmental Conditions:**

☑ Clear	□ Dry	Wind speed (km/hr):	7
☐ Overcast	⊠ Mild	Wind direction (N, E, S, W):	WNW
☐ Showers	☐ Humid	Temperature (°C):	31

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

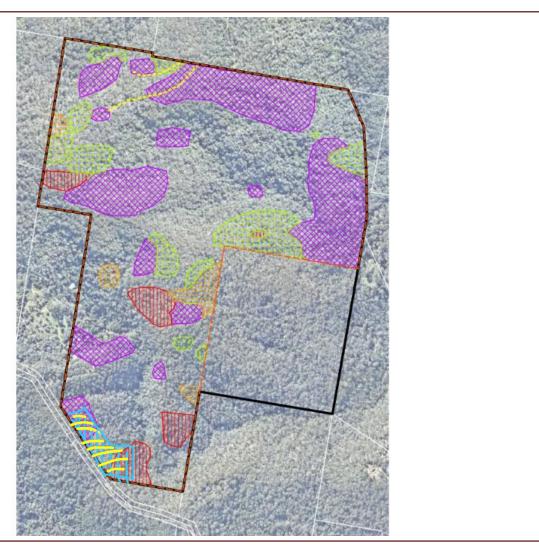


### **Site Notes**

Fauna notes: (significant sightings)		
	Flowering:	
Flora notes:	Fruiting:	
Fiora notes.	Germinating:	
	Threatened or significant:	
Provide general comments on the	work undertaken (constrain	its, wins etc)
Treated lantana and asparagus by h	and pulling or CSP technique	es.
A large prickly pear was found and t	reated by frilling	
	,	
What should be the focus for next t	ime?	
Continue working through the zone	. There are large clumps of I	antana further down the slope from today's work area.
8. 2.0	5 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	,
A		
Any recommendations for the man	agement of the site?	
Are there any site-specific issues th	at our client should be awa	re of (detail and add photos if necessary)?



Mud Map:



Legend										
		Rubbish								
	Slashing		Hand Weed		Other					
Define Other:										

## Bushcare Services – Daily Record Sheet v 1.3 Photo Record

Photo 1 - manually removed lantana





Photo 2 – Manually removed lantana





Photo 3 - asparagus crown (left) treated by cutting into and treated with herbicide



Photo 4 – prickly pear with frill marks on each section





Photo 6 -



### **Internal Reporting**

Use this section to detail any is	sues, concerns, wins or requests	
Use this section to log ac	cess reporting documents	
(if any item is ticked yes, an appro	opriate report must be submitted)	
Vehicle Damage:	Yes	□ No ⊠
Accident / Incident:	Yes	□ No ⊠
Equipment Maintenance Required:	Yes	□ No ⊠
Does anything need restocking?	Yes	□ No ⊠
Supervisor to Sign: This report represents a tru	e and accurate reflection of works undertaken:	
Hilledon	29/08/2024	
Supervisor Signature	Date	
Bushcare Administration to Sign: This	report has been checked and approved	
Administration Signature	Date	



Client:	Boral	Project:	Ormeau EPBC Weed Control Aug 24	Time Allocated:	
Date of Work:	24/09/2024	Team Size:	4	Supervisor:	Jack Thatcher

Start Time: 06:30 Finish Time: 15:30 Total Working Hours: 34

(30-minute lunch break is assumed)

Vehicle Rego: 498ZMR

	Tasks to Be Undertaken/ Completed			
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	CSP and handweed lantana, cat's claw and asparagus	30000	M2	22
2	Pull cat's claw to ground for later foliar spray	10000	M2	12
3				
4				
5				

	Team Members / Hours Worked on Site													
Name Hours Name Hours Name Hours Name									Hours					
1	Jack Thatcher	8.6		2	Nicholas Kent	8.5		3	Luke Chandler Cooper	8.5		4	Cassidee Stretton	8.5
5		6				7				8				

	WHS - Toolbox Talk									
1	Steep slippery slopes	2	Rubbish/ barbed wire	3	Neighbouring properties					
4	Falling branches	5	Spiked flora	6	Wildlife/ ticks/ jumping ants					



### Herbicide Use

#### Application 1:

Equipment Used		Chemicals Used (a	active ingredient/trade name)	Qı	antity applied	Rate:	Plants treated	Method
	Active Ingredient		Trade Name	(ml, g, other)		nate.	Plants treated	
	☐ Glyphosate Weedmaster duo		QTY	1000mL	1:1	Lantana, basket asparagus, cat's claw	CSP	
	□ Other		QTY					
		Dye		QTY				
	☐ Adjuvant		QTY					
Total Volume of mixture (litres): 2								

#### Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name)			Quantity applied		Rate:	Plants treated	Method
	Active Ingredient		Trade Name		(ml, g, other)	nate:	riants treateu	IVIETIOU
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
	Total Volume of mixture (litres):							

### Application 3:

Equipment Used	Che	Chemicals Used (active ingredient/trade name)			Quantity applied		Plants treated	Method
	Ac	tive Ingredient	Trade Name		(ml, g, other)	Rate:	riants treated	Wictiloa
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
	Total Volume of mixture (litres):							

#### **Environmental Conditions:**

☑ Clear	☐ Dry	Wind speed (km/hr):	15
☐ Overcast	⊠ Mild	Wind direction (N, E, S, W):	NE
☐ Showers	☐ Humid	Temperature (°C):	25

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

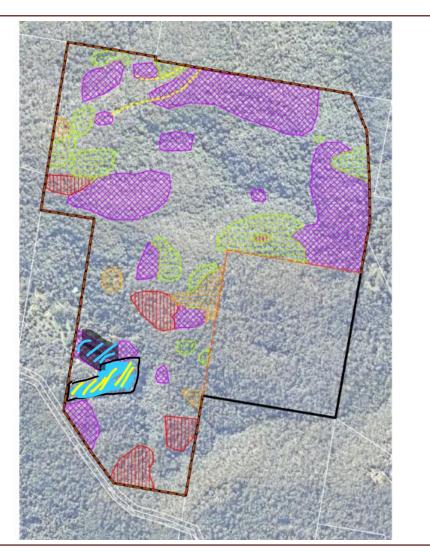


### **Site Notes**

Fauna notes: (significant sightings)					
	Flowering:				
Flora notes:	Fruiting:				
Fiora notes.	Germinating:	Macadamia, Brachychiton ormeau			
	Threatened or significant:	Macadamia, Brachychiton ormeau			
Provide general comments on the	work undertaken (constraii	nts, wins etc)			
Treated WONS: Lantana camara, ba	sket asparagus, and cat's cl	aw by either pulling or cut, scrape and painting with 1:1 glyphosate.			
Smaller cat's claw in trees was pulle	d down to be sprayed at a l	ater date.			
·	• •				
What should be the focus for next t	ime?				
Spray cat's claw on the ground. Con	tinue with lantana treatme	nt from edge of today's work zone.			
Any recommendations for the man	agement of the site?				
Access track for easier access throu	gh site				
	5 0.00				
Are there any site-specific issues that our client should be aware of (detail and add photos if necessary)?					
Are there any site-specific issues that our thent should be aware or (detail and add photos it fiecessary):					



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 - Lantana after treatment





Photo 2 – Cats claw after treatment





Photo 3 -		Photo 4 -
	) 1	



Photo 5 -		Photo 6 -
	J 1	



## **Internal Reporting**

Use this section to detail any iss	sues, concerns, wins or requests					
Use this section to log acc	cess reporting documents					
(if any item is ticked yes, an appro	opriate report must be submitted)					
Vehicle Damage:		Yes 🗆	No ⊠			
Accident / Incident:		Yes 🗆	No ⊠			
Equipment Maintenance Required:						
Does anything need restocking?						
Supervisor to Sign: This report represents a true	e and accurate reflection of works undertaken:					
Thatara	24/09/2024					
Supervisor Signature	Date					
Bushcare Administration to Sign: This r	eport has been checked and approved					
Administration Signature	Date					
Auministration signature	Date					



Client:	Boral	Project:	Ormeau EPBC Weed Control Aug 24	Time Allocated:	
Date of Work:	26/09/2024	Team Size:	4	Supervisor:	Jack Thatcher

Start Time: 06:30 Finish Time: 15:30 Total Working Hours: 34

(30-minute lunch break is assumed)

Vehicle Rego: 498ZMR

	Tasks to Be Undertaken/ Completed										
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)							
1	Foliar spray cat's claw	10000	M2	18							
2	CSP and handweed lantana and basket asparagus	15000	M2	16							
3											
4											
5											

	Team Members / Hours Worked on Site													
Name Hours Name Hours Name Name Name										Hours				
1	Jack Thatcher	8.5		2	Hayden Stewart	8.5		3	Blaine Williams	8.5		4	Odin Mircic	8.5
5				6				7				8		

WHS - Toolbox Talk										
1	Steep slopes	2	Spiked flora	3	Public/neighbours					
4	Herbicides	5	Falling branches	6	Isolated working					



## Herbicide Use

## Application 1:

Equipment Used	ed Chemicals Used (active ingredient/trade name)		Qı	Quantity applied Rate:		Plants treated	Method	
	Ac	tive Ingredient	Trade Name		ml, g, other)	nate.	Plants treated	ivietnoa
	$\boxtimes$	Glyphosate	Weedmaster duo	QTY	1000mL	1:1	Lantana, basket asparagus	CSP
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
Total Volume of mixture (litres):								

## Application 2:

Equipment Used		Chemicals Used (	active ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	
	Ac	tive Ingredient	Trade Name		(ml, g, other)	1,000		
		Glyphosate		QTY			Cat's claw	FS
	$\boxtimes$	Other	ADAMA cutlass 500	QTY	300mL	60mL/10L		
	$\boxtimes$	Dye	Tru blu	QTY	300mL	60mL/10L		
	$\boxtimes$	Adjuvant	Brushwet	QTY	120mL	20mL/10L		
Total Volume of mixture (litres):								

## Application 3:

Equipment Used	Che	micals Used (activ	ve ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	Method
	Ac	tive Ingredient	Trade Name		(ml, g, other)	Nate.	Fidilis treateu	
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
Total Volume of mixture (litres):								

## **Environmental Conditions:**

⊠ Clear	□ Dry	Wind speed (km/hr):	9
☐ Overcast	⊠ Mild	Wind direction (N, E, S, W):	N
☐ Showers	☐ Humid	Temperature (°C):	26

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

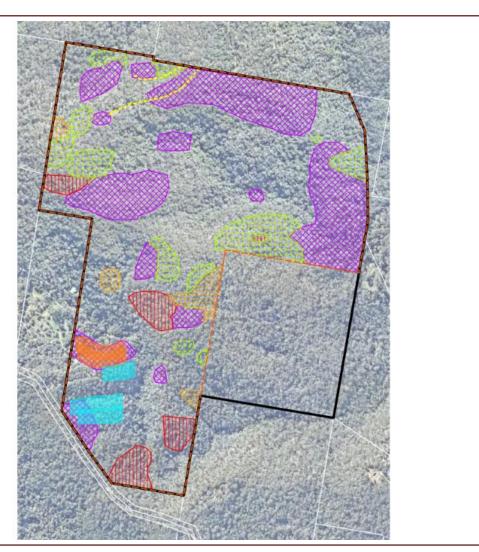


## **Site Notes**

Fauna notes: (significant sightings)		
	Flowering:	
Flora notes:	Fruiting:	
riora riotes.	Germinating:	
	Threatened or significant:	
Provide general comments on the	work undertaken (constrain	its, wins etc)
Foliar sprayed cat's claw on ground	that was prepared two days	s ago, 24/09/2024.
Continued with removal of WONS to	hrough the site.	
	-	
What should be the focus for next t	time?	
Continue with lantana treatment. R	oadside and driveway fronta	ages have been complete. The gully downhill from cliff barrons Rd is the next most
accessible zone with lantana. Large	clumps of lantana remain be	elow the cat's claw area and would ideally be managed with hedgers.
	·	, , ,
Any recommendations for the man	agement of the site?	
Are there any site-specific issues th	at our client should be awa	re of (detail and add photos if necessary)?



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 - treated cats claw





Photo 2 – treated cat's claw





Photo 3 -	Photo 4 -



Photo 5 -		Photo 6 -
	J 1	



## **Internal Reporting**

Use this section to detail any iss	sues, concerns, wins or requests		
Use this section to log acc	cess reporting documents		
(if any item is ticked yes, an appro			
Vehicle Damage:	Ye	s 🗆	No ⊠
Accident / Incident:	Ye	s 🗆	No ⊠
Equipment Maintenance Required:	Ye	s 🗆	No ⊠
Does anything need restocking?	Ye	s 🗆	No ⊠
Supervisor to Sign: This report represents a true	e and accurate reflection of works undertaken:		
Staller	26/09/2024		
Supervisor Signature	Date		
Bushcare Administration to Sign: This r	eport has been checked and approved		
	• •		
Administration Signature	Date		



Client:	Boral	Project:	Ormeau EPBC Weed Control Aug 24	Time Allocated:	
Date of Work:	30/10/24	Team Size:	4	Supervisor:	Jack Thatcher

Start Time: 0630 Finish Time: 1530 Total Working Hours: 34

(30-minute lunch break is assumed)

Vehicle Rego: 498ZMR

	Tasks to Be Undertaken/ Completed			
	Detail Work Area, Output and Outcomes	Output	Units	Time Taken (hours)
1	Treated lantana using motorised hedgers and hand tools with glyphosate	4000	M2	34
2				
3				
4				
5				

	Team Members / Hours Worked on Site													
	Name	Hours			Name	Hours			Name	Hours			Name	Hours
1	Jack Thatcher	8.5		2	Hayden Stewart	8.5		3	Odin Mircic	8.5		4	CJ Rakuraku	8.5
5				6				7				8		

WHS – Toolbox Talk								
1	Steep slopes	2	Manual handling	3	Motorised machinery			
4	Herbicides	5	Hot, humid weather	6	Spiked flora			



## Herbicide Use

## Application 1:

Equipment Used	Chemicals Used (active ingredient/trade name)  Active Ingredient Trade Name		Quantity applied		Rate:	Plants treated	0.0 - 4 h d	
			Trade Name	(ml, g, other)		nate.	riants treateu	Method
	$\boxtimes$	Glyphosate	Weedmaster duo	QTY	500mL	1:1	Lantana	CSP
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
Total Volume of mixture (litres):								

## Application 2:

Equipment Used	Chemicals Used (active ingredient/trade name Active Ingredient Trade Name		active ingredient/trade name)	Qı	uantity applied	Rate:	Plants treated	Method
			Trade Name	(ml, g, other)			riants treated	IVIETIOU
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
		Т	otal Volume of mixture (litres):					

## Application 3:

Equipment Used	Che	micals Used (activ	ve ingredient/trade name)	Quantity applied (ml, g, other)		- Rate:	Plants treated	Method
	Act	tive Ingredient	Trade Name					Wicthou
		Glyphosate		QTY				
		Other		QTY				
		Dye		QTY				
		Adjuvant		QTY				
	T	otal Volume of mixture (litres):						

## **Environmental Conditions:**

☑ Clear	☐ Dry	Wind speed (km/hr):	11
☐ Overcast	□ Mild	Wind direction (N, E, S, W):	ENE
☐ Showers	⊠ Humid	Temperature (°C):	24

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

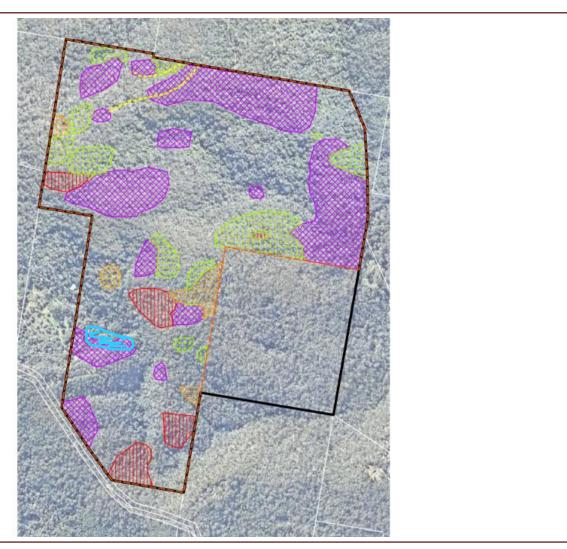


## **Site Notes**

Fauna notes: (significant sightings)		
	Flowering:	
Flora notos:	Fruiting:	
riora notes:	Germinating:	
	Threatened or significant:	
Provide general comments on the	work undertaken (constrain	nts, wins etc)
We used hedgers to break down lar	ge lantana clumps that were	e otherwise too large to be treated effectively. Stumps were followed up with cut, scrape,
painting. Smaller lantana was treate	ed using hand tools in the sa	me way.
What should be the focus for next t	ime?	
Continue with lantana treatment		
Any recommendations for the man	agement of the site?	
Are there any site-specific issues th	at our client should be awa	re of (detail and add photos if necessary)?



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 -





Photo 3 -



Photo 4 -





Photo 5 -



Photo 6 -			



## **Internal Reporting**

Use this section to detail any iss	Use this section to detail any issues, concerns, wins or requests					
Use this section to log acc	cess reporting documents					
(if any item is ticked yes, an appro	priate report must be submitted)					
Vehicle Damage:		Yes 🗆	No ⊠			
Accident / Incident:	Yes 🗆	No ⊠				
Equipment Maintenance Required:	Yes 🗆	No ⊠				
Does anything need restocking?		Yes □	No ⊠			
Supervisor to Sign: This report represents a true	e and accurate reflection of works undertaken:					
Malde	30/10/2024					
Supervisor Signature	Date					
Bushcare Administration to Sign: This r	eport has been checked and approved					
F Campbell	31/10/2024					
Administration Signature	Date					

# Appendix E

Burn Plan Year 4 - Fireland





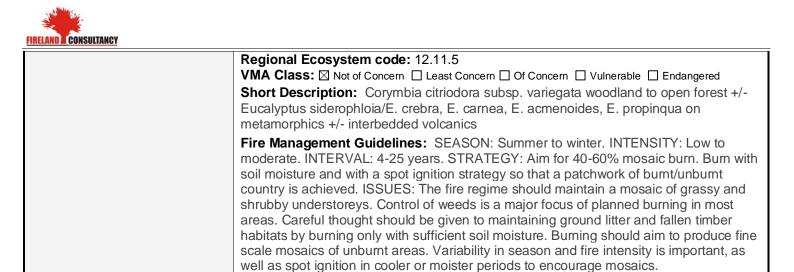
# S27 - C OPERATIONAL PRESCRIBED BURN PLAN

BURN NAME	Boral_	HRB_1.25	Lot/Plan/s No.	2/RP15812	
Burn No.	1.25		(all approvals	2/RP15912	
	FMU 2	)	obtained)  Yes		
Lagation	Ormea		Dood Commont		
Location	Offfiea	au	Road Segment No.		
LGA	GCCC	;	Proposed Timing	April - December	
ECC details			TASMIS number		
Permit Number			Actual Date		
Prescribed Burn Plan	nner Matt Ferguson			March 2024	
		Name & position		Signature & date	
		Burn Planning checklist co	omplete	☑ Yes ☐ No	
Burn Plan Reviewer		Matt Ferguson		April 28 25	
		Joshua Bull		M	
		Name & position		Signature & date	
		Burn Plan Review checklis	st complete	☐ Yes ☐ No	
	Dan Fran Noview Greenhiete 100 100				
ATTACHMENTS — may not be attached to this document					
☐ Burn permit (Mandatory)			☐ Map of notified re	esidents (if applicable)	
Burn map (Mandato			☐ Media advice (if	` '' '	
Complexity Rating		ory)	☐ Risk assessmen		
Pre Burn Works ord			□ Contingency ma     □ Contingency ma	` ,	
☐ Vegetation & Habita			Other (if so what		
I 吕 - "":	4 1 4	\/		<i>'</i>	

Vegetation & Habitat Map (if applicable) Traffic management plan (if applicable)



		<b>SITUATIOI</b>	V (SMEACS	)	
PLANNING					
Complexity Rating:	(CR - 2), (	complexity [64	·].		
SITE CHARACTERISTICS (re	fer to Oper	ational Burn N	<b>Л</b> ар)		
Area to be treated	На	Percentage aim	40-60%	Last Fire type Unknown	10+ Years since last fire
Description of site (Topography, slope and aspect)		steep slopes, sl ange located on		o flat grass land along drain	age line. Section
FUEL CHARACTERISTICS					
Vegetation type (General description of vegetation & fuel type, height, fuel variability)	Flat area he	eavily grassed.		eartially shrubby with predon	
Overall fuel hazard score	☐ Low [	Moderate	⊠ High □	Very High	15-20t/Ha
VALUES MANAGEMENT					
Vegetation Management Act class			st Concern 🗵	Of Concern 🛚 Vulnerable	e ☐ 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: ☑ Yes Known identified location: ☑ No ☐ Yes Value at threat from planned fire activities: ☐ No ☑ Yes – include in values assessment  Species: Glossy black cockatoo Presence identified as likely: ☑ Yes Known identified location: ☑ No ☐ Yes				
	Regional E VMA Class Short Desc Lophostem metamorph Fire Manag to moderate years main understorey RE structur rainforest s grasses and ISSUES: Fi species low grassy syst habitat. It is intensity fire intensity fire follow-up be germinating threatened coronata an	cosystem codes: Not of Concern cription: Eucaly on confertus, Colics +/- interbedo gement Guideling. Unplanned octains a healthy go. STRATEGY: A ce (eucalypt over pecies). Any mod shrubs should requent fire is not in the profile of the em is especially a sessential that we so occur periodic es will create the um soon after a grant species. plant species (end Sophora frase	e: 12.11.3a  Description siderople orymbia interriled volcanics nes: SEASO casional high prassy system Aim for 40-60 estorey with operation of the understo important for cally through disturbance high intensity This 'of conduct. G., Acomis a peri) which request	ern  Of Concern  Vulnerable hloia, E. propinqua +/- E. m nedia, E. acmenoides open on: Summer to winter. INTE intensity wildfire will occur. a. 8-20 years for shrubby ele mosaic burn. Needs distripen understorey of predomi ll that is relatively open with for fire management to retain tain understorey integrity, k rey so that other species can species such as the easter of the sole source of fire in the time, however frequent low required to keep the understored the considered the sole source of the understore wildfire can be considered the sole source of the understore of the under	Endangered icrocorys, forest on  NSITY: Plan for low INTERVAL: 4-8 ements of urbance to maintain nantly non-a mixture of in RE structure. Reeping more mesic an compete. A rn bristlebird and its this ecosystem. High to moderate storey diverse. A to reduce number of rare and amii, Marsdenia ement.



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



	/alues Assessment be used to assess values w	vithin (or adjacent) to the burn area that may be threat	ened (adversely) from the planned fire event
Value Type	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.
- NI	Fire Sensitive		Undertake burn with good soil moisture conditions.
N	vegetation	Fire incursion	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.
С	Cultural site	Ground disturbance from machinery	Exclude machinery from area.

Control Lines				
Control lines Refer to Operational Map	Name of control line	Location	Type /width (A - B - C - D)	
Type Description <b>A</b> – Heavy appliance	ТВА	Western control line	C/4	
(Urban fire truck or water tanker	ТВА	North west control	C/4	
etc.)	ТВА	North east control	C-D/4	
<b>B</b> – Medium appliance (Echo or Isuzu etc.)	ТВА	Southern control	C/4	
C – 4WD vehicle access (Land Cruiser or Patrol etc.)				
<b>D</b> – 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	<ul><li>✓ Yes (If <b>yes</b>, has the <i>Pre burn works order</i> sheet been populated?)</li><li>☐ No</li></ul>			

IF FOUND



MISSION								
Aim & Objectives	Fire mitigation	, treat 40-	60%	burnable fuel	load.			
(Outline the general intent of the proposed burn and the specific objectives. Consider fuel load, fuel structure & mosaic effect)	Burn ridge line	Burn ridge lines and allow fire to back down into riparian gullies						
Expected duration of burn/Timeline	2-4 days							
		EXEC	CUT	TION				
PREFFERED FIRE/FUEL PARA	AMETERS							
Weather conditions	Max temp	32°		Max wind sp & preferred direction	peed	20 km Any	Min RH Max RH	25% 80%
Flame height	1-3 m (average)	Coolon c cm (m craige)						
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	⊠ Ground	☐ Aerial		Slingshot [	Othe	er (if other what	)	
Ignition pattern	Ignition from h	ighpoints	and	from fire sensi	tive ve	getation to mee	et objectives.	
(Describe the ignition method and sequence of lighting) (Procedure may be modified on the day of the burn, based on conditions and test burn)								
SUGGESTED RESOURCES								
Machinery/plant items	Fireland	Cour		RFSQ		QFES	Other La	ınd
Type Number req.		/Util	ity				manage	er
	4 x LA							
Totals:								
Specialist personnel (List function & name)	Fauna Spotte	er.						
Contingency resources (List additional resources required if breakout occurs)	Fireland, witl Pozzie track		rs 4	light attacks				
Water points	Type				Lo	cation		
(Refer to operational map) (Describe the type e.g. hydrant, dam, static etc. & the location/s-grid reference)	Creek TBA	Point CN	l (we	st of)				



## **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	(e.g. Vulnerable persons)	(Smoke impacts - health)	(Task – liaise with management to close windows)
P - Person			(Constraint – Only burn with a northerly wind)
C – Cultural			Any <u>tasks</u> to be transferred to the 'Pre burn
U - Utility			works order sheet.
В		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	Boral carpark in event of incident			
(Refer to Operational Burn Ma	) House (Vacant) g	eneral		
(Describe the location)	Calf Cufficient			
Catering (Describe location, time and	Self Sufficient.			
supplier)				
Fuel	Ormeau			
(Describe location and type)				
NEIGHBOUR & LAND OWN	IER NOTIFICATION	S		
<ul> <li>☑ Firecom must be notified prior to lighting up, and at the completion of the day.</li> <li>☐ All land owners must give consent for works to be carried out on their land.</li> <li>☑ 72 hours notice must be given to adjoining land owners/occupiers.</li> </ul>				
Agency / Neighbour	Contact No.	Advised Date / Time	Notes	
City of Gold Coast	media@goldcoas t.qld.gov.au			
QFES media	QFESMedia@qfe s.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@goldco ast.qld.gov.au			
City of Gold Coast	media@goldcoas t.qld.gov.au			
Patrol				
(outline patrol responsibilities, timeframe & resources)				
Other	Inductions/Gate keys/Radios required.			
(Include any other logistical arrangements. Gate keys?)	Boral Procedures as required.			
COMMAND AND COMMUNICATIONS				
ORGANISATIONAL STRUCTURE & COMMUNICATIONS				
OKGANISA HUNAL STRUC	JI UKE & CUMMUNI	CATIONS		



FIRELAND & CONSULIANCE				
Fire command	Network/Channe	el FC - UHF char	nnel 1	
Fire-ground	Network/Channe	etwork/Channel		
Aviation	Network/Channe	etwork/Channel		
Position	Name	Call Sign	Channel/s	Mobile
Incident Controller				
□Sector □ Crew leade Name TBA	er			
□Sector □ Crew leade Name TBA	er			
□Sector □ Crew leade Name TBA	er			
□Sector □ Crew leade Name TBA	er			
□Sector □ Crew leade Name	er			
Safety advisor				
Contingency communications (Describe arrangements i 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.

This section to be used to assess specific threats that exist that could adversely affect individuals from the activity.			
Threat (from the activity)	Consequence	Mitigation – Task/Constraint	
(e.g. Hazard tree)	Personal harm	(Task – Identify hazardous trees)	
		(Task – Exclude hazardous trees)	
		(Constraint – Burn with high soil moisture)	
		Any tasks to be transferred to the 'Pre burn	
		works order sheet.	
Hazardous trees	Personal harm	Crew briefing.	
Track condition and vehicle movement	Roll vehicle	Crew briefing, JSEA, Training	
	Threat (from the activity)  (e.g. Hazard tree)  Hazardous trees  Track condition and	Threat (from the activity)  (e.g. Hazard tree)  Personal harm  Hazardous trees  Personal harm  Track condition and  Roll vehicle	

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	

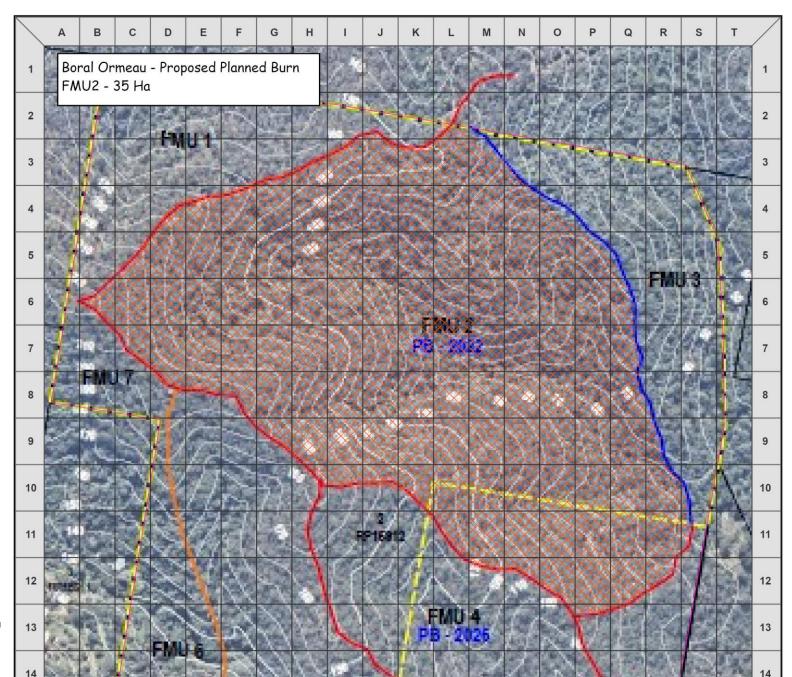
BRIEFING UNDERTAKEN			
Date	Time	Incident Controller's signature (IC)	
INCIDENT CONTROLLER HANDOVER BRIEFING			



Date	Time	Outgoing IC signature	Incoming IC name & signature
DEBRIEFING I	UNDERTA	KEN	
Date	Time	Incident controller's signature (IC)	

# **SAFETY BRIEFING – to be completed all burn days**





# Appendix F

Gold Coast City Council approval



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

You have appeal rights in relation to this decision. An appeal may be made against, as applicable:

- 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.

An appeal must be started within 20 business days after this notice is given to you.

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 *Planning Act 2016*, to a development tribunal.

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.

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 *Planning Act 2016.* A person who is appealing to the Planning and Environment Court must comply with the rules of the court that apply to the appeal.

An extract of Chapter 6, Part 1 and Schedule 1 of the *Planning Act 2016* is attached to this notice, which sets out further information about the appeal rights.

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

M. Spears

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 Timing

- 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.
- 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.

# 2 Approved drawings

Undertake and maintain the development generally in accordance with the following drawings:

Drawing Title	Author	Date	Drawing No.	Ver
Vegetation Management Plan	New Ground	2/11/2022	2766	1
Supplementary Data: Individual Tree Survey Data	New Ground	-	2766	1

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.

# 3 Approved Plans

Undertake and maintain the development generally in accordance with the following plans:

Plan Title	Author	Date	Plan Reference No.	Ver
Vegetation Management Plan	New Ground	2/11/2022	2766	1

# 4 Scope of works

Undertake the vegetation clearing in accordance with the following scope of works:

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

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.

# **Environmental and Landscaping**

## 5 Vegetation management

Implement the vegetation management measures identified in the plan listed below at no cost to Council:

Plan Title	Author	Date	Plan Reference No.	Ver
Vegetation Management Plan	New Ground	2/11/2022	2766	1

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 *Australian Standard AS4373 2007 Pruning of Amenity Trees.*
- 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 *Australian Standard AS4373 2007 Pruning of Amenity Trees*.

# 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:
  - 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:

<b>Environmental Assessment</b>	
Expertise required of the suitably qualified	Actions to be overseen by the professional

р	professional	
	/linimum 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 Certification of works

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

Environmental Assessment				
Certified document	Certification date	Plan/ Drawing	Expert discipline	Requesting Council Section
Vegetation management plan	Upon practical completion of works	2766	AQF Level 5 Arborist	Environmental Assessment

#### The certification is to confirm:

- 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.

# 12 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.

# **Advice Notes**

#### A Compliance with conditions

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.

# B Indigenous cultural heritage legislation and duty of care requirement

The Aboriginal Cultural Heritage Act 2003 ('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:

- 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.

Those proposing an activity involving surface disturbance beyond that which has already occurred at the proposed site must observe this duty of care.

Details of how to fulfil this duty of care are outlined in the duty of care guidelines gazetted with the ACHA.

The applicant should contact DSDSATSIP's Cultural Heritage Coordination Unit on 1300 378

401 for further information on the responsibilities of developers under the ACHA.

# C Applicant responsibilities

The applicant is responsible for securing all necessary approvals and tenure, providing statutory notifications and complying with all relevant laws.

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 liming this obligation, the applicant is responsible for:

- 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 commended 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 *Environment Protection Act 1994* 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 Survey and Mapping Infrastructure Act 2003.
- 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 Weeds, pest animals and ants

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.

All landscape materials, including but not limited to, soils, mulch, grass, gravel, potted or exground plants, pavers and timber used in landscape treatments must be free from weeds, pest animals and ants.

## E Fire ant control

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 *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/fireants. F Listing of Koala under EPBC Act Koala populations in South East Queensland are listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as a matter of national significance. All necessary approvals must be obtained prior to any works commencing on the site. G **Species Management Program** 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. Further advice is found on: https://environment.des.qld.gov.au/licences-permits/plants-animals/species-management-

program/

# 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

> Application No: OPW/2022/879 20 February 2023 ons of approval as detailed in the

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL



**LOCALITY PLAN** 

Approval is for change to ound level only.

			DOCUMENT	CONTROL	APPROVED
			DESIGNED	B.J.M	044//-
С	19.10.2022	SHEETS CO4 & CO5 REMOVED FROM SET	DRAWN	B.J.M	Math
В	8.07.2022	LOCALITY PLAN UPDATED TO SHOW LOCATION OF WORKS	CHECKED	B.C.A	B. ARTHUR RPEQ 4384, NER 694962
Α	13.06.2022	EARTHWORKS & EROSION DRAWINGS ADDED	DATE	MAY 2022	For and on behalf of WESTERA PARTNERS PTY. LTD.
No.	DATE	REVISIONS	FILE NAME	Coversheet.dwg	





GOLD COAS
Level
17 Welch St, Southpo
T: 07 5571 1599   F: 07 5571 133
E: goldcoast@westerapartners.com.a
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NODTHERN NO

SURVEYOR
SCHLENCKER SURVEYING QLD
PHONE (07) 5573 6744
USE FIGURED DIMENSIONS ONLY. DO NOT SCALE, IF A DI

OR	DATUM
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07) 5573 6744	
DIMENSIONS ONLY. DO NOT SCALE, IF A DISCREPINEER AND/OR SUPERVISING AUTHORITY. DO NOT	
I-A3 SIZE PAPER). COPYRIGHT OF ALL DRAWINGS ED IN WESTERA PARTNERS AND USE OF THERE F	

LOCATION

TITLE

CLIENT

BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509 COVER SHEET

BORAL LIMITED

FOF		rus PPR(	OVAL
G21-			901
SHEET N	UMBE	R	REVISION
01	OF	2	С

#### **GENERAL NOTES**

- WESTERA PARTNERS HAS LIMITED CONTROL OR INPUT TO LOCAL GOVERNMENT OR OTHER LEGISLATED APPROVALS UNLESS SPECIFICALLY ENGAGED BY IT'S 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.
- 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.
- UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
- 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.
- THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING SUB-SOIL TESTS OF THE SUB-GRADE MATERIAL.
- ALL U.P.V.C. STORMWATER DRAINAGE PIPES ARE TO BE CLASS SN8 AND ALL R.C. AND F.R.C. PIPES ARE TO BE CLASS 3 RUBBER RING JOINTED UP TO AND INCLUDING BOO DIA. PIPES OVER 600 DIA. ARE TO BE CLASS 3 AND ARE TO HAVE AN EXTERNAL RUBBER BAND JOINT GROUTED INTERNALLY.
- 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**

- IN CASE OF DOUBT ASK!
- ALL LEVELS TO AHD, DIMENSIONS IN METERS U.N.O.
- ALL LIAISON WITH LOCAL, STATE & STATUTORY AUTHORITIES EW3 THE CONTRACTOR'S RESPONSIBILITY.
- 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.
- ANY DAMAGE CAUSED TO THE EXISTING SERVICE WILL BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.
- EARTHWORK PROCEDURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH AS 3798 - 2007 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL
- EARTHWORKS OPERATIONS ARE TO BE CARRIED OUT IN GENERAL ACCORDANCE WITH THE GEOTECHNICAL REPORT
- 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).
- THE CONTRACTOR IS TO ALLOW FOR ALL FEES AND HAULAGE COSTS ASSOCIATED WITH DISPOSAL OF MATERIAL FROM THE SITE.
- ALL COSTS ASSOCIATED WITH NOISE AND DUST SUPPRESSION FOR SITE WORKS ARE DEEMED THE CONTRACTOR'S RESPONSIBILITY.
- COMPACTION STANDARDS

		MINIMUM RELATIVE COMPACTION, %		
ITEM	APPLICATION	MINIMUM DENSITY RATIO (COHESIVE SOILS) (SEE NOTE 1*)	INDEX (COHESIONLESS SOILS)	
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 PAVEMENT -	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 - HEAVILY LOADED - OTHER	98 mod 95 mod (SEE NOTE 5*)	NOT USUALLY APPLICABLE NOT USUALLY APPLICABLE	

- 'MODIFIED' TO AS 1289 TEST 5.2.1.
- 'STANDARD' TO AS 1289 TEST 5.1.1.
- 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.
- NO BLASTING WILL BE PERMITTED.
- 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.
- TESTING FREQUENCY AS 3798 2007 SECTION 8.0 OR AS APPROVED BY THE GEOTECHNICAL ENGINEER.
- 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.
- THE LOCATION OF TEMPORARY STOCKPILES DURING CONSTRUCTION IS TO BE AGREED WITH THE MANAGE

#### **CONCRETE NOTES**

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 CONCRETE STRUCTURES CODE AND THE REFERENCED STANDARDS THEREIN.
- THE CONCRETE STRENGTH GRADE AND THE COVER TO REINFORCEMENT FOR
  - CLIMATE ZONE: TROPICAL TEMPERATE ARIQ
  - LOCATION: COASTAL NEAR COASTAL INDAND

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	-
F00TPATHS	B1	N32	40

- 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, UNLESS
- NO ADDITIVES SHALL BE ADDED OF APPLIED TO THE CONCRETE MIX WITHOUT THE APPROVAL OF THE ENGINEER.
- 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

- ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. VIBRATORS SHALL NOT BE
- 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
- WHEN THE AIR TEMPERATURE EXCEEDS 30°C, ALIPHATIC ALCOHOL SHALL BE APPLIED TO THE CONCRETE SURFACE OF SLABS IMMEDIATELY AFTER THE INITIAL SCREED AND AGAIN AFTER BULL FLOATING.
- 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.
- SIZES OF CONCRETE FLEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS IF ANY
- NO HOLES, CHASES OR EMBEDDED ITEMS OTHER THAN THOSE SHOWN ON THE TRUCTURAL 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.
- WHERE SERVICE PIPES PENETRATE CONCRETE ELEMENTS, PROVISION SHOULD BE C13 MADE TO ALLOW FOR MOVEMENT OF THE ELEMENT.
- FORMWORK SHALL BE DESIGNED, CONSTRUCTED AND STRIPPED IN ACCORDANCE WITH AS3610 FORMWORK CODE, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN
- ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION ON PLASTIC BAR CHAIRS, GENERALLY AT NOT GREATER THAN 800mm CENTRES IN BOTH DIRECTIONS.
- WELDING AND HEATING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT APPROVAL OF THE ENGINEER.
- ALL STEEL REINFORCEMENT IN CONCRETE ELEMENTS SHALL BE INSPECTED BY THE ENGINEER AND PASSED PRIOR TO POURING OF ANY CONCRETE.
- LAP REINFORCEMENT ONLY AT LOCATIONS SHOWN ON THE DRAWINGS OR AS APPROVED BY THE ENGINEER.
- 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
- BAR REINFORCEMENT SHALL BE LAPPED IN ACCORDANCE WITH THE

	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

A VAPOUR BARRIER OF 0.2mm (200um) MINIMUM THICK POLYTHENE SHEETING

# **LEGEND**

DUAL OUTLET FIRE HYDRAN

SWABBING FIRE HYDRANT

TEST/CHLORINATION POINT

PIPE MATERIAL CHANGE

WATER SERVICE PRE-TAPPED TEE

WATER SERVICE PIPE & CONDUIT

ISOLATION VALVE

AIR VALVE

**WATER** 

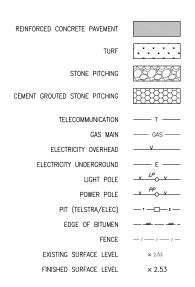
NFW

**FXISTING** 

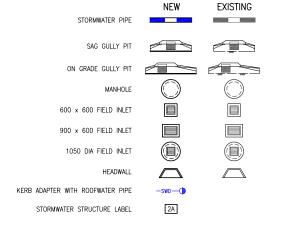
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#### **GENERAL**



#### STORMWATER DRAINAGE



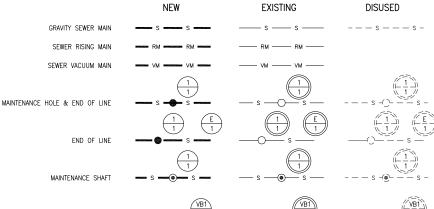
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL Application No: OPW/2022/879 Dated: .... 20 February 2023

conditions of approval as detailed in the Decision Notice and Council's Planning ne, Local Laws and Planning Policies

# **SEWERAGE**

FLOW METER

FLUSHING POINT



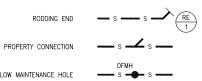
HORIZONTAL/VERTIVCAL BEND





STUB / TEMPORARY END

COMPOUND BEND



OVERFLOW MAINTENANCE HOLE ISOLATION VALVE

SCOUR VALVE AND CHAMBER GAS RELEASE VALVE FLUSHING POINT

DISCHARGE MAINTENANCE HOLE NON-RETURN/REFLUX VALVE

VENT POLE / ODOUR CONTROL UNIT

round level only.

Approval is for change to

SURVEYOR

GOLD COAST

SCHLENCKER SURVEYING QLD PHONE (07) 5573 6744

USE FIGURED DIMENSIONS ONLY. DO NOT SCALE, IF A DISCREPANCY ARISES CHECK WITH THI PROJECT ENONICER ANDDOS SUPERVISING AUTHORITY. DO NOT WORK FROM REDUCED SCALL DAMINGS (A-NOSE AS USE APPER), COPYRIGHT OF ALL DOWNIOS A WORKE SECUTED FROM THEM IS VESTED IN WESTERA PARTHEES AND USE OF THERE FORE WITHOUT PERMISSION IS STEICTLY PROMISED IT IS THE MULDERS RESPONSIBLITY TO ENSURE ALL WORKS ARE CARRIED OUT WITH DUE CARE AND DILIGENCE TO COMPLY WITH THE CONTRACT DOCUMENTS

BORAL QUARRY ORMEAU PROJECT 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509

DRAWING STATUS FOR APPROVAL DRAWING NUMBER G21-095-G02 SHEET NUMBER 02 of 02

DOCUMENT CONTROL DESIGNED B.J.M DRAWN R.IM CHECKED B.C.A 19.10.2022 APRIL 2022 DATE FILE NAME Civil\_Notes.dwg

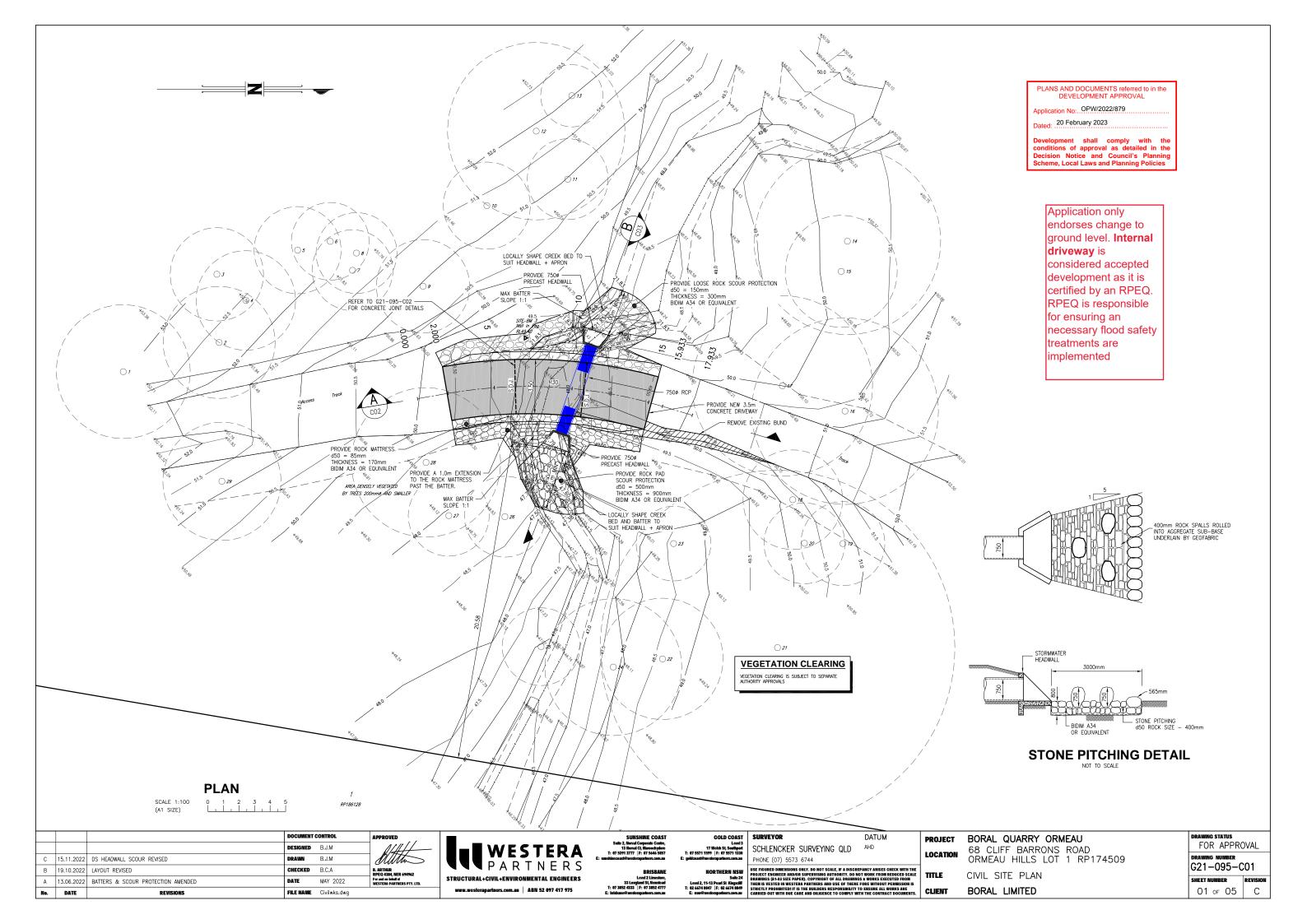
PARTNERS STRUCTURAL+CIVIL+ENVIRONMENTAL ENGINEERS www.westerapartners.com.au | ABN 52 097 417 975

Suite 24
Level 2, 11-13 Pearl St Kingsdiff
T: 02 6674 8047 | F: 02 6674 8049

DATUM

TITLE CLIENT

LOCATION CIVIL NOTES AND LEGEND BORAL LIMITED



REINFORCED CONCRETE PAVEMENT 0.50 PROVIDE ROCK MATTRESS. d50 = 85mm THICKNESS = 170mm BIDIM A34 OR EQUIVALENT PROVIDE 1 in 1 MAX BATTER SLOPE MIM PROVIDE LOOSE ROCK SCOUR PROTECTION 150 = 150mm PROVIDE 1 in 2 TYP (1 in 1 MAX) BATTER SLOPE THICKNESS = 300mm BIDIM A34 OR FOLIVALENT MIN

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

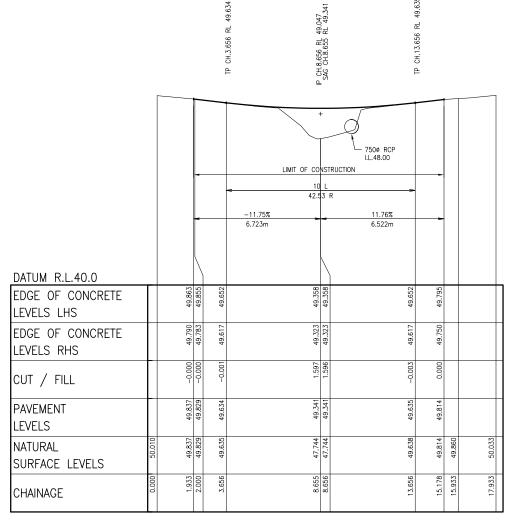
**TYPICAL CROSS SECTION** 

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

19.10.2022

DATE

LONG SECTION REVISED, TYP SECT ADDED



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



DOCUMENT CONTROL

DESIGNED B.J.M

CHECKED B.C.A

B.J.M

FILE NAME Road\_Lsec.dwg

MAY 2022

DRAWN

WESTERA PARTNERS CIVIL+ENVIRONMENTAL ENGINEERS www.westerapartners.com.au | ABN 52 097 417 975

GOLD COAST Level 3 17 Welch St, Southport T: 07 5571 1599 | F: 07 5571 1330

NORTHERN NSW
Suite 24
Level 2, 11-13 Pearl St Kingsciff
T: 02 6674 8047 | F: 02 6674 8049
E: nsw@westerapartners.com.au

SURVEYOR SCHLENCKER SURVEYING QLD

PHONE (07) 5573 6744

PROJECT LOCATION

BORAL QUARRY ORMEAU 68 CLIFF BARRONS ROAD ORMEAU HILLS LOT 1 RP174509

DRAWING STATUS FOR APPROVAL DRAWING NUMBER G21-095-C02 SHEET NUMBER

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

PLANS AND DOCUMENTS referred to in the

40mm DEEP SOFT CUT — SEMI RIGID SEALANT SLAB TO BE CUT WITHIN 3 HOURS OF CASTING 1/N12 TOP EACH SIDE OF CUT - FABRIC CONTINUOUS THROUGH CUT EVERY SECOND WIRE AT JOINT LOCATION SL82 FABRIC —— 50mm COVER MIN -16 100mm MIN SUB-BASE UNBOUND PAVEMENT, TYPE 2.3, CBR>15 (IF ORDERED) DANLEY 6mm GALVANISED PLATE -DOWELS-450 CRS (CENTRAL)
CUT CRADLE CROSS WIRES BEFORE POUR
LOCATE EVENLY EACH SIDE OF JOINT

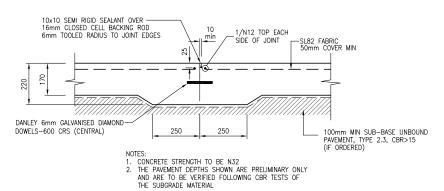
NOTES:

1. CONCRETE STRENGTH TO BE N32

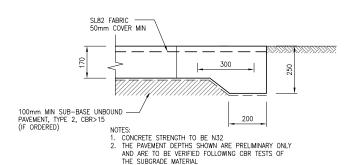
2. THE PAVEMENT DEPTHS SHOWN ARE PRELIMINARY ONLY AND ARE TO BE VERIFIED FOLLOWING CBR TESTS OF THE SUBGRADE MATERIAL

# **SAWN DOWELLED JOINT (S.D.J.)**

MARK PROPOSED JOINT LOCATIONS CLEARLY



**POUR BREAK (P.B.)** 



# TYPICAL EDGE TREATMENT

SCALE 1:100

Mu S	u
NER 694962 alf of RTNERS PTY. LTD.	STRUCTURAL+C

SUNSHINE COAST

USE FIGURED DIMENSIONS ONLY. DO NOT SCALE, IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AUDIOS SUPERVISING AUTHORITY. DO NOT WORK FROM REQUEDE SCALE DRAWING SA AND SEA PAPER, OCCUPIENT OF ALL DEARNINGS A WORKE SKEUTIER FROM THIS WESTED IN WESTERD PARTHESS AND USE OF THERE FOR WITHOUT PERMISSION IS STRICTLY PROMITED IN THE STRUCKER PROPRIETE IN THE STRUCKER PROPRIETE IN THE STRUCKER SERVICE TO COMPAY WITH THE CONTRACT DOCUMENTS.

DATUM

ACCESS ROAD LONGITUDINAL SECTION TITLE BORAL LIMITED CLIENT

02 of 05

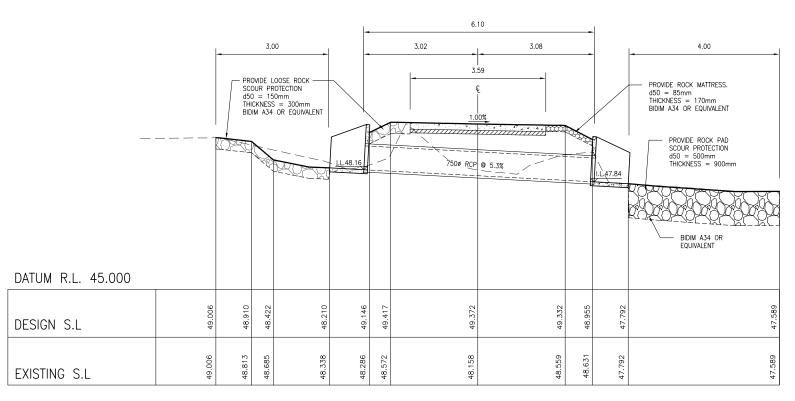
PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

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



SECTION B
1:50 SCALE @ A1 SIZE C01

					$\overline{}$
			DOCUMENT CONTROL		_   ^
			DESIGNED	B.J.M	
С	15.11.2022	DS HEADWALL SCOUR REVISED	DRAWN	B.J.M	1
В	19.10.2022	CULVERT SECTION REVISED	CHECKED	B.C.A	]:
Α	13.06.2022	US & DS SCOUR PROTECTION AMENDED	DATE	MAY 2022	1
No.	DATE	REVISIONS	FILE NAME	Culvert_Lsec.dwg	







GOLD COAST
Level 3
17 Works 3, Swellport
17 07 5571 1959 | Fr. 07 5571 1330
E: geldoastilewolsteparlenz-communication
NORTHERN NSW
Suito 24
Level 2, 11-13 Pead 51 Kingsdill
17: 02 6074 8097 | Fr. 02 6474 8094
E: newlewolsteparlenz-com.au

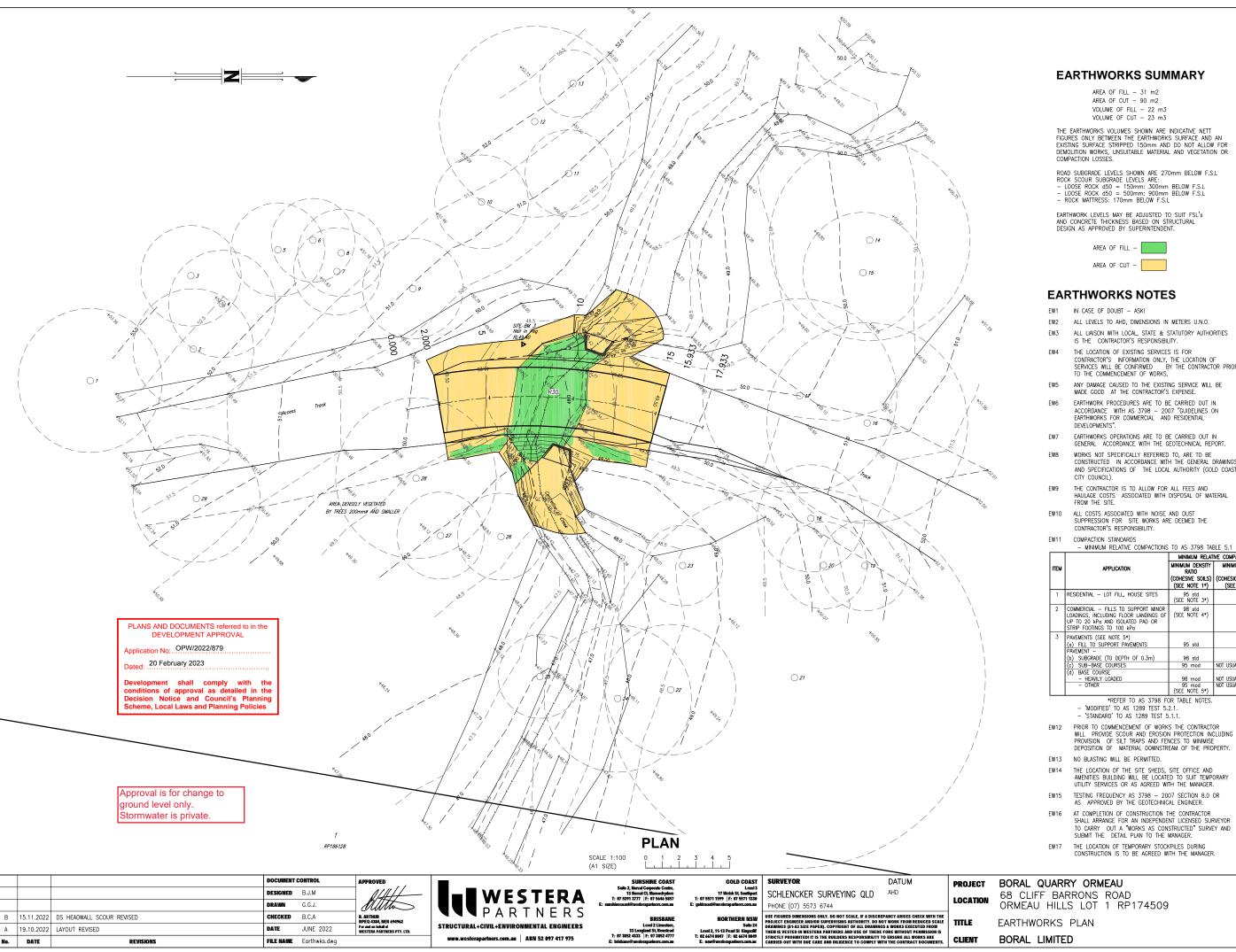
SURVEYOR	DATUM
SCHLENCKER SURVEYING Q	LD <sup>AHD</sup>
PHONE (07) 5573 6744	

	LUCATIO
RISES CHECK WITH THE FROM REDUCED SCALE IS EXECUTED FROM	TITLE
HOUT PERMISSION IS E ALL WORKS ARE ONTRACT DOCUMENTS.	CLIENT

BORAL QUARRY ORMEAU
68 CLIFF BARRONS ROAD
ORMEAU HILLS LOT 1 RP174509
STORMWATER CULVERT SECTION
BORAL LIMITED

DRAWING STATUS
FOR APPROVAL
DRAWING NUMBER
G21-095-C03
SHEET NUMBER REVISION

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CONTRACTOR'S INFORMATION ONLY, THE LOCATION OF SERVICES WILL BE CONFIRMED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.

WORKS NOT SPECIFICALLY REFERRED TO, ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL DRAWINGS AND SPECIFICATIONS OF THE LOCAL AUTHORITY (GOLD COAST

- MINIMUM RELATIVE COMPACTIONS TO AS 3798 TABLE 5.1 (REFER BELOW)

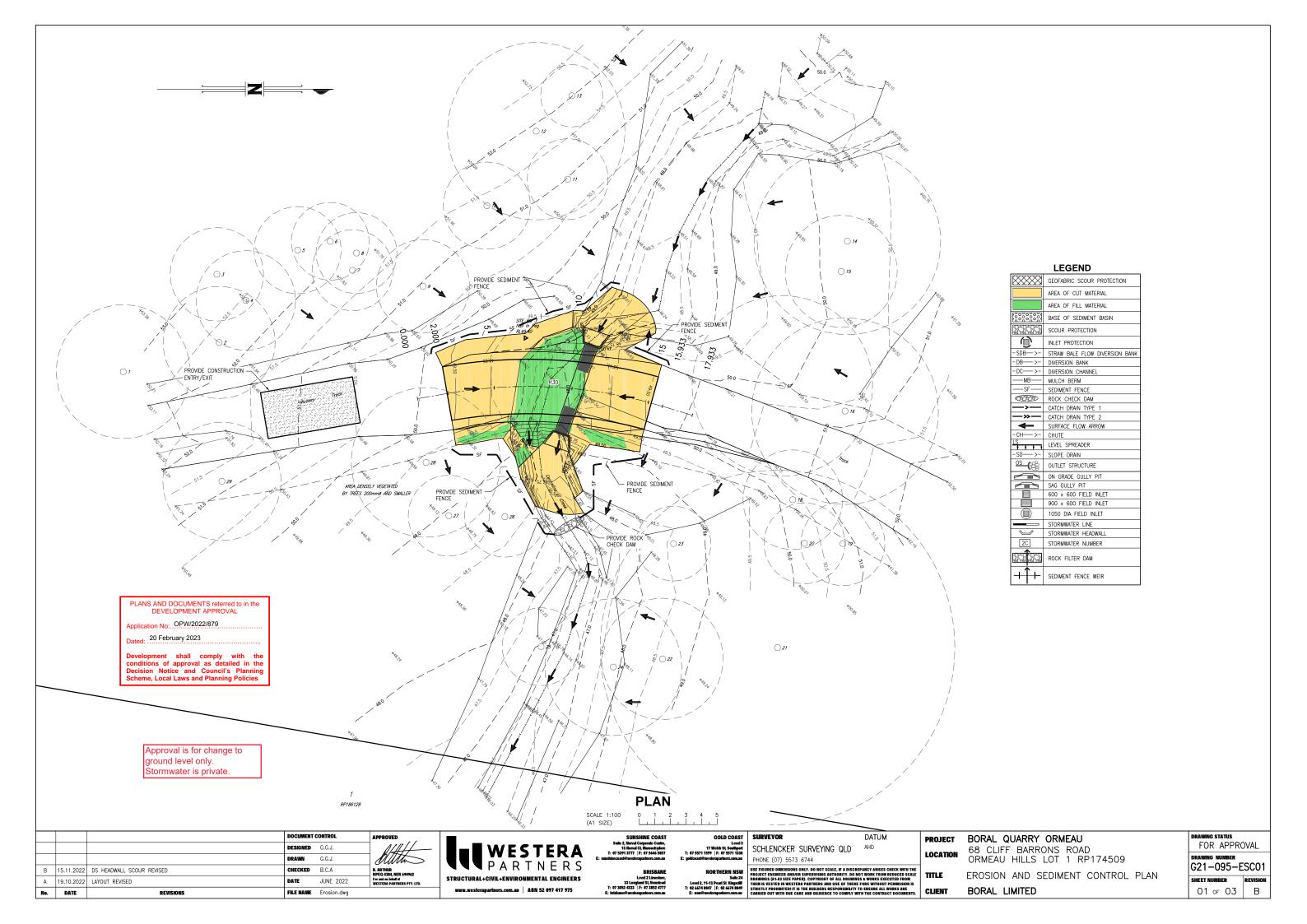
	MINIMUM RELATIVE COMPACTION, %		
APPLICATION	RATIO	MINIMUM DENSITY INDEX (COHESIONLESS SOILS) (SEE NOTE 2*)	
RESIDENTIAL - LOT FILL, HOUSE SITES	95 std (SEE NOTE 3*)	65	
COMMERCIAL — FILLS TO SUPPORT MINOR LOADINGS, INCLUDING FLOOR LANDINGS OF UP TO 20 kPa AND ISOLATED PAD OR STRIP FOOTINGS TO 100 kPa	98 std (SEE NOTE 4*)	70	
PAVEMENTS (SEE NOTE 5*) (a) FILL TO SUPPORT PAVEMENTS PAVEMENT — (b) SUBGRADE (TO DEPTH OF 0.3m)	95 std 98 std	65 80	
(c) SUB-BASE COURSES	95 mod	NOT USUALLY APPLICABLE	
(d) BASE COURSE  - HEAVILY LOADED  - OTHER	98 mod 95 mod	NOT USUALLY APPLICABLE	
	RESIDENTIAL — LOT FILL, HOUSE SITES  COMMERCIAL — FILLS TO SUPPORT MINOR LOADINGS, INCLUDING FLOOR LANDINGS OF UP TO 20 APA AND ISOLATED PAD OR STRIP FOOTINGS TO 100 APA PAVEMENTS (SEE NOTE 5*) (0) FILL TO SUPPORT PAVEMENTS PAVEMENT — (b) SUBGRADE (TO DEPTH OF 0.3m) (c) SUB-BASE COURSE — HEAVILY LOADED	APPLICATION	

- 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.

FOR APPROVAL DRAWING NUMBER G21-095-E01 SHEET NUMBER

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DRAWING STATUS

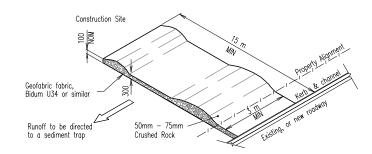


PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

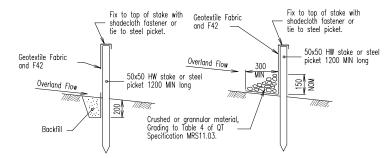
Application No: OPW/2022/879

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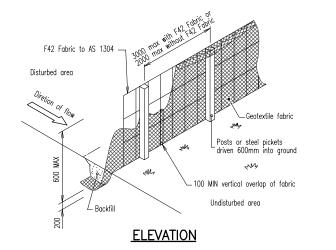


CONSTRUCTION ENTRY/EXIT SEDIMENT TRAP

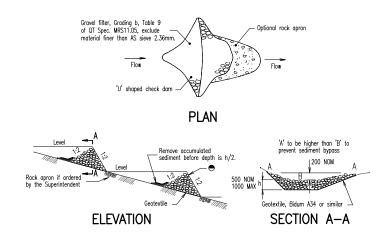


# **ALTERNATIVE 1**

# **ALTERNATIVE 2**



SEDIMENT FENCE DETAILS



CHECK DAMS

			DOCUMENT	CONTROL	APPROVED
			DESIGNED	G.G.J.	0/4//
			DRAWN	G.G.J.	Math
			CHECKED	B.C.A	B. ARTHUR RPEQ 4384, NER 694962
			DATE	JUNE 2022	For and on behalf of WESTERA PARTNERS PTY. LTD.
lo.	DATE	REVISIONS	FILE NAME	Erosion_Det.dwg	





| 19 390 3857 | 19 37 1339 | 17 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 18 97 37 1339 | 1

GOLD COAST
17 Worlds 51, Southpuring
18 SCHLENCKER SURVEYING QLD
19 PHONE (07) 5573 6744

USE FROURTED MINISIONS ONLY. DO NOT SCALE, IF A DISCREPANCY ARISES CHECK WITH THE PROJECT ENGINEER AND/OR SUPERVISION AUTHORITY. DO NOT WORK FROM REDUCED SCALE PORAMINGS (JURY AS SEE A PARTICLES AND LOCATION OF THEM IS VESTED IN WESTERN PARTICLES AND USE OF THERE FORE WITHOUT PERMISSION IS STRICKLY PROMITTED IT IS THE WULLDESS RESPONSAILY TO RESURE ALL WORKS ARE

DATUM

PROJECT LOCATION

CLIENT

BORAL QUARRY ORMEAU
68 CLIFF BARRONS ROAD
ORMEAU HILLS LOT 1 RP174509
EROSION AND SEDIMENT CONTROL DETAILS

BORAL LIMITED

DRAWING STATUS
FOR APPROVAL
DRAWING NUMBER
G21-095-ESC02
SHEET NUMBER REVISION

02 of 03

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: OPW/2022/879

Dated: .... 20 February 2023

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

#### **GENERAL NOTES**

- 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 FROSION 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 SUI PHATE 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
- 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 FNVIRONMENTAL 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 LE.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
- 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
- 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 LINDERTAKEN LINLESS PRECEDED BY THE
- LAND CLEARING MUST BE LIMITED TO 5M FROM THE EDGE OF PROPOSED 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 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.
- 5. WHEEL WASH OR SPRAY UNIT MAY BE REQUIRED DURING WET WEATHER.

- THE CONSULTING ENGINEER AND/OR COLINCIL INSPECTOR MAY ISSUE INSTRUCTIONS TO THE CONTRACTOR REGARDING EROSION AND SEDIMENT CONTROL THAT MAY VARY TO THE MEASURES SHOWN ON THIS DRAWING
  - APPROPRIATELY PROTECTED FROM WIND, RAIN, CONCENTRATED SURFACE FLOW AND EXCESSIVE UP-SLOPE STORMWATER SURFACE

SOIL AND STOCKPILE MANAGEMENT

ENVIRONMENTAL HARM IF DISPLACED, MUST BE:

LOCATED AT LEAST 2M FROM ANY HAZARDOUS AREA, RETAINED VEGETATION, OR CONCENTRATED DRAINAGE LINE.

STOCKPILES OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE

- (c) LOCATED UP-SLOPE OF AN APPROPRIATE SEDIMENT CONTROL
- 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 IMMEDIATEL' UP-SLOPE OF A STOCKPILE OF FRODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED, IF THE -SLOPE CATCHMENT AREA DRAINING TO THE STOCKPILE EXCEEDS

#### 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 NTERNAL WATER BODY, OR AN EXTERNAL DRAIN, STORMWATER SYSTEM,
- 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 OTHERWISE APPROPRIATELY STABILISED WITHIN 7 DAYS AFTER BACKFILL.
- NO MORE THAN 150M OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH MUST TO BE OPEN AT ANY ONE TIME.
- SITE SPOIL MUST BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL FROSION 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 ENTERING 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
- 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
- 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 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 PPROPRIATELY MANAGED IN A MANNER THAT DOES NOT CAUSE ENVIRONMENTAL HARM, FLOODING, DAMAGE OR NUISANCE TO NEIGHBOURING

#### **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 RUNGEE 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
- 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
- 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 TRA SEDIMENT WITHIN THE WORK SITE, AND AS CLOSE AS PRACTICABLE TO ITS
- 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
- 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
- MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM SEDIMENT MATERIALS, WHEITER LIGHT ON SOLD, 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.
- 11. SETTLED SEDIMENT MUST BE REMOVED FROM SEDIMENT BASINS WHEN THI 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.
- 13. STRAW BALE SEDIMENT TRAPS ARE A SECONDARY OPTION WHICH GENERALLY SHOULD. NOT BE LISED IF OTHER OPTIONS ARE AVAILABLE.

- 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
- 15. 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.
- 17. EXTRA CATCH DRAINS MAY BE CONSTRUCTED BY CONTRACTOR IN ACCORDANCE WITH THESE DRAWINGS & I.E.C.A. TECHNICAL NOTES &

#### 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
- \_ 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
- 10. 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
- 12. MAINTENANCE MOWING MUST BE DONE IN A MANNER THAT WILL NOT DAMAGE THE PROFILE OF FORMED, SOFT EDGES, SUCH AS THE CREST OF EARTH

# 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
- 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
- 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 FARTHWORKS 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 STABLISED AGAINST FROSION (MINIMUM 70%) PRIOR TO COMMENCEMENT OF USE, OR SURVEY PLAN ENDORSEMENT.

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DATUM

LOCATION

TITLE

CLIENT

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BORAL LIMITED

EROSION AND SEDIMENT CONTROL NOTES

SHEET NUMBER

DRAWING STATUS

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