



Ecological Assessment Report

54 George Alexander Way, Coomera, Queensland 4209
Prepared for Coomera GA Pty Ltd

3 February 2023

Job 11241



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Acronyms and abbreviations

ADR	Accepted Development Requirements
CGC	City of Gold Coast
CPP	City Plan Policy – Environmental site assessments
cm	centimetres
DAF	Department of Agriculture and Fisheries (Qld)
DBH	Diameter at breast height
EAR	Ecological Assessment Report
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
EVNT	Endangered, Vulnerable or Near Threatened as listed under the NCA
ha	hectares
KHA	Koala Habitat Area
km	kilometres
KMP	Koala Management Plan
KPA	Koala Priority Area
m	metres
mm	millimetres
MLES	Matters of Local Environmental Significance (as mapped by CGC)
MNES	Matters of National Environmental Significance
MSES	Matters of State Environmental Significance
NCA	<i>Nature Conservation Act 1992</i> (Qld)
NCAR	<i>Nature Conservation (Animals) Regulation 2020</i> (Qld)
NCPR	<i>Nature Conservation (Plants) Regulation 2020</i> (Qld)
PA	<i>Planning Act 2016</i> (Qld)
PAV	Property Map of Assessable Vegetation
PMR	Protected Matters Report
PMST	Protected Matters Search Tool
PR	<i>Planning Regulation 2017</i> (Qld)
RE	Regional Ecosystem
RVMM	Regulated Vegetation Management Map
RVSM	Regulated Vegetation Supporting Map
SDAP	State Development Assessment Provisions
SHG	Saunders Havill Group
SPP	<i>State Planning Policy 2017</i> (Qld)
SRZ	Structural Root Zone
TEC	Threatened Ecological Community
TPZ	Tree Protection Zone
VMA	<i>Vegetation Management Act 1999</i> (Qld)
WWBW	Waterway Barrier Works

1. Introduction

The *Environmental Management Division* of Saunders Havill Group (SHG) was engaged by Coomera GA Pty Ltd (the client) to prepare an Ecological Assessment Report (EAR) for their site located at 54 George Alexander Way, Coomera, Queensland 4209, described as Lot 96 on RP187418. This EAR is intended to support a development application to City of Gold Coast (CGC) and provides a review of the site's ecological values in accordance with Commonwealth, State and Local Government legislation. The proposed plan of development is presented in **Appendix A**.

Contextually, the site is located approximately 2.7 kilometres (km) south of Coomera centre and approximately 1.4 km west of the Pacific Motorway. The site is bound by George Alexander Way to the west, an approved development to the north, a similar large residential lot to the south and established residential community to the east. Refer to **Figure 1** for Site Context and **Figure 2** for Site Aerial.

The site is mostly mapped as Category B (remnant) vegetation under the *Vegetation Management Act 1999* (VMA) and Koala Habitat Area (KHA). The central and western portion of the site is mapped as Category X (non-remnant) vegetation.

1.1. Property Summary

Key site details are presented in **Table 1**.

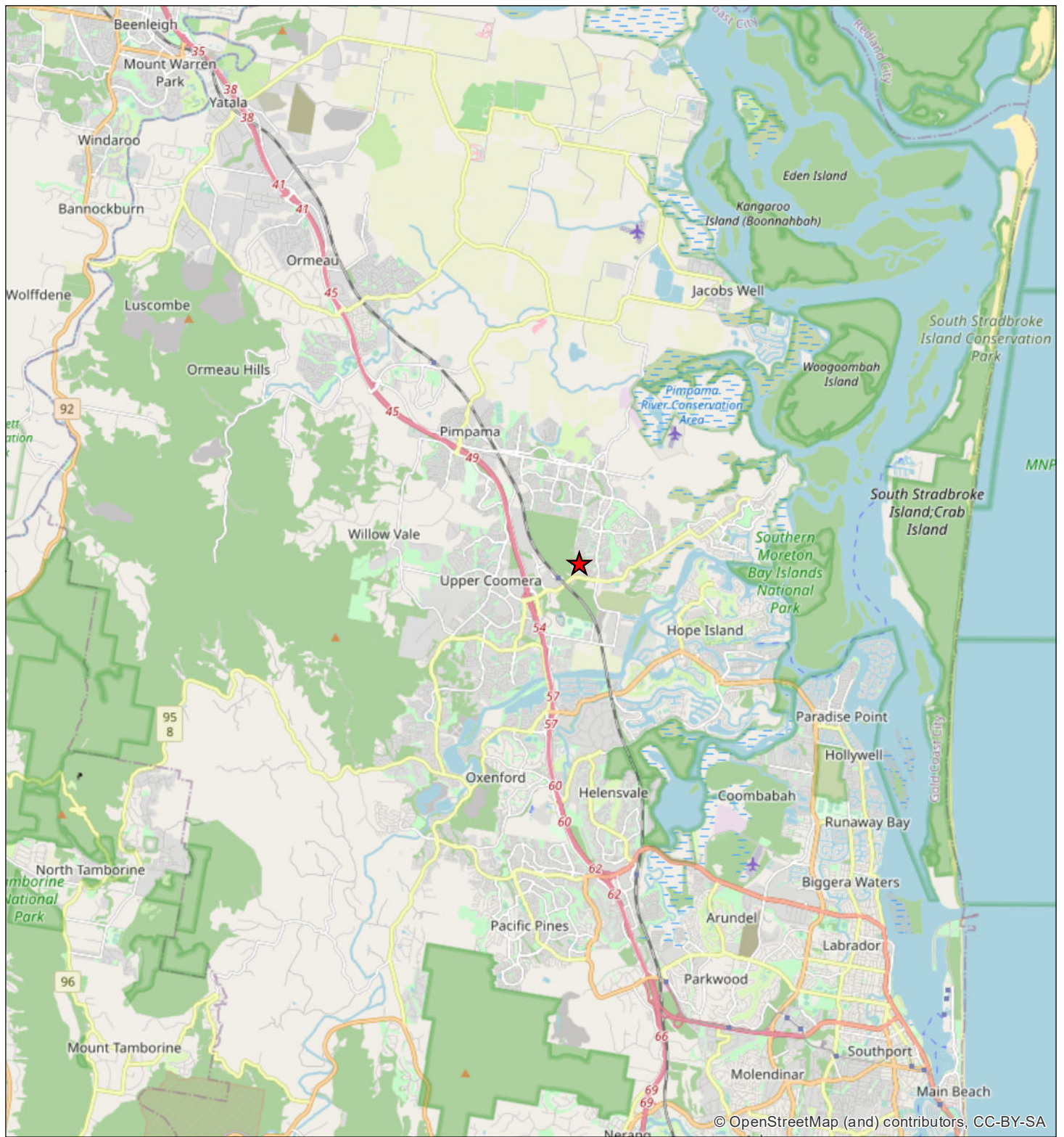
Table 1: Property Summary

Address	54 George Alexander Way, Coomera, Queensland 4209
Lot/plan	Lot 96 on RP187418
Area	3.01 ha
Vegetation Management Act 1999	Category B (remnant) Least Concern RE12.11.5 (0.82 ha) Category B (remnant) Least Concern RE12.11.24 (1.19 ha) Category X (non-remnant) vegetation (1.0 ha) Essential habitat for <i>Phascolarctos cinereus</i> (Koala)
Matters of State Environmental Significance (MSES)	MSES – Wildlife habitat (koala habitat areas – core) MSES – Regulated vegetation (essential habitat) MSES – Regulated vegetation (intersecting a watercourse) MSES – Regulated vegetation (category B)
Nature Conservation Act 1992	Partially within high risk area for protected plants
Fisheries Act 1994	Low (green) risk waterway for waterway barrier works (WWBW)
Koala Habitat Provision	Wholly outside Koala Priority Area Partially contains Koala Habitat Area (core)
LGA	City of Gold Coast

Zoning	High density residential Medium density residential
Environmental Overlays	<u>Priority species:</u> Matters of State Environmental Significance – State significant species and Koala habitat areas <u>Vegetation management:</u> Matters of Local Environmental Significance vegetation management – medium priority vegetation <u>Significance wetlands and watercourse:</u> local significant wetlands buffer area
Existing Land Use	Residential
Proposed Land Use	Residential subdivision

1.2. Purpose of the Report

This report provides a review of the site's ecological values in accordance with Commonwealth, State and Local Government legislation. The purpose of this EAR is to present the outcomes of field surveys, identify environmental site constraints, and assess the potential of the project to impact on ecological features. This report is intended to support a development application to GCG. This EAR has been prepared in accordance with the *Gold Coast City Plan 2016* City Plan Policy – Ecological site assessments (CPP).



Legend

★ Site Location

Figure 1
Site Context

Coomera GA
Pty Ltd

File ref. 11241 E Figure 1 Site Context A
Date 2/02/2023
Project George Alexander Way, Coomera

SH saunders
havill
group

0 1 2 3 4 5 km

Scale (A4): 1:150,000 [GDA 2020 MGA Z56]





Legend

- Site DCDB
- Qld DCDB

Figure 2
Site Aerial

File ref. 11241 E Figure 2 Site Aerial A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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2. Ecological Assessment Methodology and Process

The following steps were undertaken in the preparation of this assessment:

1. Desktop Analysis.
2. Legislation and Policy Review.
3. Field Survey.
4. Assessment of Impacts.
5. Conclusions.

Details of the methodology undertaken for each of the assessment phases is provided in the following sections.

2.1. Desktop Analysis Methodology

Prior to the commencement of field surveys, a desktop analysis was conducted of Commonwealth and State environmental databases and overlay mapping including the following:

- Commonwealth MNES protected under the EPBC Act on and around the site using the Protected Matters Search Tool (PMST);
- *Nature Conservation Act 1992* (NCA) listed threatened species on and around the site using the Wildlife Online Database;
- Public Environmental Databases including Atlas of Living Australia;
- State Government environmental overlay mapping including:
 - Regulated Vegetation Maps under the *Vegetation Management Act 1999* (VMA);
 - Flora Survey Trigger Areas under the NCA;
 - Fish habitat under the *Fisheries Act 1994*;
 - Watercourses under the *Water Act 2000*;
 - Weeds under the *Biosecurity Act 2014*;
 - Matters of State Environmental Significance (MSES) under the State Planning Policy (SPP) (*i.e.*, wetland protection areas, Koala habitat etc.); and
 - *Coastal Protection and Management Act 1995*.
- *Gold Coast City Plan 2016* documents and maps.

2.1.1 Aerial History

Historic aerial imagery shows that the site was historically entirely treed in the 1970s and was converted into a residential property in the 1980s. The site has retained much of its vegetation cover with some clearing and modification occurring to support residential land uses. Refer to **Plan 1** for historical aerial imagery.

2.2. Field Survey Methodology

Field surveys were completed by two (2) Ecologists on 18 October 2022. The methods detailed in the following sub-sections were utilised to evaluate site ecological values.

Fauna surveys are conducted under the following permits held by Saunders Havill Group:

- Scientific Purposes Permit **WA0022007** granted under Section 12(f) of *Nature Conservation (Administration) Regulation 2017*.
- Department of Agriculture and Fisheries (DAF) Ethics clearance **CA 2020/02/1355**.
- Scientific User Registration **SUR000451**.

A field survey utilising the following methods was conducted to describe on site vegetation and general habitat values (refer **Plan 2**).

2.2.1 Observational Survey for Significant Flora and Fauna, Habitat Trees and Biodiversity Values

The project area was walked to observe and record all flora and fauna species. Particular attention was paid to any threatened species listed as possibly occurring within or proximal to the site. Specific micro-assemblages, which may support these threatened species, were also recorded when observed. This survey included observations for vertebrate fauna present within or proximal to the study area, faunal lists and significant species under the Commonwealth's EPBC Act and Queensland's NCA.

The observational survey included identification of ecological features and values such as broad vegetation communities, fauna habitats, and ecological corridors. Specific attention was paid to significant flora and fauna species listed under CGC City Plan policies.

2.2.2 GPS Tree Plot

A tree plot survey was completed to record all non-juvenile trees within the site. A handheld GPS device (Trimble) was used to record locations (accuracy ± 1 m), and the following parameters of each tree specimen were recorded:

- tree species, via a combination of observations of the gum nuts, buds, leaves, bark and growth form;
- diameter of the trunk of the tree measured using the standard method of Diameter at Breast Height (DBH);
- height of the tree measured using a laser rangefinder with three-point measurement capability (inclinometer);
- canopy spread;

- health assessment (canopy, trunk); and
- habitat values (for example, presence and/or number of hollows, nests, termites, scratches and scats).

The Tree Protection Zone (TPZ) of the tree was calculated using the formula outlined in *Australian Standard AS4970-2009 – Protection of Trees on Development Sites* ($TPZ = DBH \times 12$). A TPZ should not be less than 2 metres (m) and no greater than 15 m (except where crown protection is required). Additionally, the Structural Root Zone (SRZ) was calculated for each plotted specimen using the measured DBH and the following formula:

$$SRZ \text{ radius} = (DBH \times 50)^{0.42} \times 0.64.$$

2.2.3 Ground-truthing of vegetation communities

Vegetation was ground-truthed and assessed against mapping under CGC's Environmental Significance Overlays and current VMA Regional Ecosystem mapping and pre-clear mapping. Survey methodology comprised an initial visual audit, followed by assessment of vegetation associations and communities. The initial visual audit consisted of a random meander over the site to ground-truth desktop investigations and identify the location and extent of any vegetation associations and communities.

2.2.4 Scats, tracks and other traces search

Surveys for scats, tracks and other traces were completed throughout the survey period. Both predator and non-predator scats were sought during all searches. Only those samples definitively identified were included in the survey results. Specific search efforts were made to locate the presence of Koalas or evidence of their occurrence on the subject lands and the local area. In addition, particular notice of potential dens, scats and tracks for invasive species was taken to identify predator-prey interactions and understand existing impacts within the assessment area.

1. Historical Aerial Imagery



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

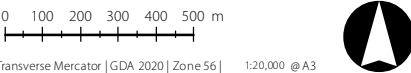
Layer Sources
© State of Queensland (Department of Resources) 2023.
Updated data available at
<http://qldspatial.information.qld.gov.au/catalogue/>
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Legend

 Site DCDB

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



Address / RPD: 96/RP187418

2/02/2023 | 11241 E 01 Aerial History A

3. Legislation, Policy and Planning Instruments

3.1. Environment Protection and Biodiversity Conservation Act 1999

The Australian Government's key piece of environmental legislation is the EPBC Act. The EPBC Act aims to protect and manage MNES which include nationally and internationally important flora, fauna, ecological communities and heritage places.

An EPBC Act Protected Matters Report (PMR) was obtained using the Commonwealth's PMST. The search provides a list of wetlands of international significance, threatened ecological communities (TECs), threatened species and other MNES which have the potential to be temporarily or permanently located within a 5 km search radius of the site. A summary is provided in **Table 2** and **Appendix B** provides full search results. For the purposes of this report, marine species (*i.e.*, shark, whale and turtle) were omitted from the list due to the absence of marine habitat. The likelihood of on-site occurrence for each matter listed in the PMR was reviewed prior to commencing field surveys and subsequently reviewed post-field surveys.

Table 2: EPBC Act PMR Summary

Wetlands of International Importance		
Moreton Bay (within 10 km of Ramsar site)		
Threatened Ecological Communities		
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland Ecological Community – Endangered (community may occur)		
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland – Endangered (community likely to occur)		
Lowland Rainforest of Subtropical Australia – Critically Endangered (community may occur)		
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions – Endangered (community likely to occur)		
Threatened Species		
Scientific Name	Common Name	Status
Birds		
<i>Anthochaera phrygia</i>	Regent Honeyeater	Critically Endangered
<i>Botaurus poiciloptilus</i>	Australasian Bittern	Endangered
<i>Calidris canutus</i>	Red Knot, Knot	Endangered
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered
<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	Vulnerable
<i>Charadrius leschenaultia</i>	Greater Sand Plover	Vulnerable
<i>Cyclopsitta diophthalma coxeni</i>	Coxen's Fig-Parrot	Endangered
<i>Erythrorhynchus radiatus</i>	Red Goshawk	Vulnerable

Scientific Name	Common Name	Status
<i>Falco hypoleucos</i>	Grey Falcon	Vulnerable
<i>Geophaps scripta scripta</i>	Squatter Pigeon (southern)	Vulnerable
<i>Grantiella picta</i>	Painted Honeyeater	Vulnerable
<i>Hirundapus caudacutus</i>	White-throated Needletail	Vulnerable
<i>Lathamus discolor</i>	Swift Parrot	Critically Endangered
<i>Limosa lapponica baueri</i>	Alsakan Bar-tailed Godwit	Vulnerable
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	Critically Endangered
<i>Rostratula australis</i>	Australian Painted Snipe	Endangered
<i>Sternula nereis nereis</i>	Australian Fairy Tern	Vulnerable
<i>Turnix melanogaster</i>	Black-breasted Button-quail	Vulnerable
Frogs		
<i>Mixophyes fleayi</i>	Fleay's Frog	Endangered
Insects		
<i>Argynnis hyperbius inconstans</i>	Australian Fritillary	Critically Endangered
Mammals		
<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat, Large Pied Bat	Vulnerable
<i>Dasyurus maculatus maculatus</i> (SE mainland population)	Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population)	Endangered
<i>Macroderma gigas</i>	Ghost Bat	Vulnerable
<i>Petauroides volans</i>	Greater Glider	Endangered
<i>Petaurus australis australis</i>	Yellow-bellied Glider (south eastern)	Vulnerable
<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT)	Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	Endangered
<i>Potorous tridactylus tridactylus</i>	Long-nosed Potoroo (SE mainland)	Vulnerable
<i>Pseudomys novaehollandiae</i>	New Holland Mouse, Pookila	Vulnerable
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable
Plants		
<i>Arthraxon hispidus</i>	Hairy-joint Grass	Vulnerable
<i>Baloghia marmorata</i>	Marbled Baloghia, Jointed Baloghia	Vulnerable
<i>Bosistoa transversa</i>	Three-leaved Bosistoa, Yellow Satinheart	Vulnerable
<i>Cryptocarya foetida</i>	Stinking Cryptocarya, Stinking Laurel	Vulnerable
<i>Cryptostylis hunteriana</i>	Leafless Tongue-orchid	Vulnerable
<i>Cupaniopsis shirleyana</i>	Wedge-leaf Tuckeroo	Vulnerable
<i>Endiandra floydii</i>	Floyd's Walnut	Endangered
<i>Macadamia integrifolia</i>	Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak	Vulnerable

Scientific Name	Common Name	Status
<i>Macadamia tetraphylla</i>	Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut	Vulnerable
<i>Phaius australis</i>	Lesser Swamp-orchid	Endangered
<i>Planchonella eerwah</i>	Shiny-leaved Condoo	Endangered
<i>Plectranthus habrophyllus</i>	-	Endangered
<i>Rhodamnia rubescens</i>	Scrub Turpentine, Brown Malletwood	Critically Endangered
<i>Rhodomyrtus psidioides</i>	Native Guava	Critically Endangered
<i>Samadera bidwillii</i>	Quassia	Vulnerable
<i>Thesium australe</i>	Austral Toadflax, Toadflax	Vulnerable
<i>Tylophora woollsii</i>	-	Endangered
Reptiles		
<i>Coeranoscincus reticulatus</i>	Three-toed Snake-toot Skink	Vulnerable
<i>Delma torquata</i>	Adorned Delma, Collared Delma	Vulnerable
<i>Hemiaspis damelii</i>	Grey Snake	Endangered

3.2. Nature Conservation Act 1992

The NCA classifies and protects significant areas (Protected Areas) and protects Queensland's native plant and animal species. The *Nature Conservation (Plants) Regulation 2020* (NCPR) and *Nature Conservation (Animals) Regulation 2020* (NCAR) list plant and animal species presumed extinct, endangered, vulnerable, near threatened, least concern, international or prohibited. The schedules of this regulation were considered in this assessment using a wildlife online database extract with a 5 km radius from the central point of the subject site. The list of threatened species under the NCPR and NCAR with the potential to occur on or near the project are presented in **Table 3**. Refer to **Appendix C** for full search results.

Table 3: NCA Wildlife Online Search Results

Scientific Name	Common Name	Status
Amphibians		
<i>Crinia tinnula</i>	Wallum Froglet	Vulnerable
Birds		
<i>Calidris ferruginea</i>	Curlew Sandpiper	Critically Endangered
<i>Calyptorhynchus lathami</i>	Glossy Black Cockatoo	Vulnerable
<i>Calyptorhynchus lathami lathami</i>	Glossy Black Cockatoo (eastern)	Vulnerable
<i>Erythrorhynchus radiatus</i>	Red Goshawk	Endangered
<i>Hirundapus caudacutus</i>	White-throated Needletail	Vulnerable
<i>Limosa lapponica baueri</i>	Western Alaskan Bar-tailed Godwit	Vulnerable
<i>Ninox strenua</i>	Powerful Owl	Vulnerable
<i>Numenius madagascariensis</i>	Eastern Curlew	Endangered

Scientific Name	Common Name	Status
Mammals		
<i>Petauroides armillatus</i>	Central Greater Glider	Vulnerable
<i>Phascolarctos cinereus</i>	Koala	Vulnerable
<i>Xeromys myoides</i>	Water Mouse	Vulnerable
Plants		
<i>Coleus habrophyllus</i>	-	Endangered
<i>Rhodamnia rubescens</i>	Scrub Turpentine	Critically Endangered
<i>Rhodomirtus psidioides</i>	Native Guava	Critically Endangered
<i>Syzygium moorei</i>	Durobby	Vulnerable
<i>Macadamia integrifolia</i>	Macadamia Nut	Vulnerable
<i>Cupaniopsis newmanii</i>	Long-leaved Tuckeroo	Near Threatened

The protected plants regulatory framework under the NCA, establishing survey and approval triggers, and processes for clearing protected plants. The protected plant definition includes all presumed extinct, critically endangered, endangered, vulnerable and/or near threatened plant species listed by name in Schedules 1 and 2 of the NCPR and least concern wildlife, not listed by name but identified as a plant indigenous to Australia in Schedule 6. Furthermore, the plant must be considered *in the wild* in order to be a protected plant.

The NCA identifies *in the wild* as ‘in an independent state of natural liberty’. Several factors influence whether a protected plant is *in the wild*:

- the process by which the plant has become established, *i.e.*, either initiated through human intervention or naturally occurring;
- the natural range of the plant species; and/or
- the ecological situation in which the plant is found.

Typically, planted specimens are not considered *in the wild* and an authority or permission is not necessary for the taking of such specimens. The *Operational Policy Wildlife Management*¹ provides further information on this definition.

If a specimen is confirmed as *in the wild*, the plant must not be ‘taken’—which includes being cleared—unless the taking is under:

- a conservation plan applicable to the plant;
- a license, permit or other authority under a regulation; or
- an exemption under a regulation.

¹ Department of Environment and Heritage Protection 2015. *When a protected plant in Queensland is considered to be ‘in the wild’ Operational policy.*

A search of the protected plants flora survey trigger map identified that the assessment area is located partially within a 'high risk area' for protected plants (refer **Figure 3**). Consequently, a flora survey and exemption or permit to clear from the administering authority in accordance with the protected plants guidelines may be required prior to the clearing of vegetation. If there are *in the wild* protected plants on-site that are required to be cleared, the person/entity completing the clearing will need a clearing permit unless an exemption applies.

3.3. *Vegetation Management Act 1999*

The VMA is the key mechanism by which the Queensland Government protects the state's environmental resources pertaining to vegetation. Under the VMA, a series of maps delineate vegetation features across the landscape, which are each assigned a conservation value directly related to the remaining extent of these features in the landscape. The VMA also protects 'essential habitat' vegetation where listed threatened species have been or are known to occur.

The Regulated Vegetation Management Map (RVMM) shows vegetation categories used to determine clearing requirements. Areas shown on the map as Category X are not regulated under the VMA, and those shown as Category A, B, C or R are subject to clearing regulations. The latter vegetation categories can only be cleared in accordance with an exemption, accepted development vegetation clearing code, area management plan or development approval. The Regulated Vegetation Supporting Map (RVSM) defining regional ecosystems, wetlands, watercourses and essential habitat, accompanies the RVMM. When approval for clearing native vegetation is required under the *Planning Act 2016*, an assessment against the State Code 16: Native Vegetation Clearing of the State Development Assessment Provisions (SDAP) is required.

Pre-clear mapping indicates the site was historically mapped entirely as Least Concern Regional Ecosystems 12.11.24 and 12.11.5. A property search of the RVMM identifies the site is mapped mostly as Category B (remnant) vegetation with a portion of Category X (non-remnant) vegetation (1.0 ha) (refer **Figure 4**). The RVSM indicates that the Category B (remnant) vegetation is mapped as Least Concern RE 12.11.24 (1.19 ha) and Least Concern RE 12.11.5 (0.82 ha) (refer **Figure 5**).

3.4. South East Queensland Koala Habitat

South East Queensland Koala habitat protection mechanisms are incorporated into the *Planning Regulation 2017* (PR). Schedule 10 Part 10 of the PR sets out what is and is not prohibited or assessable development in a Koala Habitat Area. Where inside a Koala Priority Area (KPA), the provisions of Schedule 11 of the PR apply unless certain criteria are met (refer Part 10 Division 2 16 A 2). Where outside of a KPA, development that involves interfering with a Koala Habitat Area is assessable unless certain criteria apply (refer Part 10 Division 3 16 B 2). Development for extractive industries in key resource areas is dealt with under Part 10 Division 4.

Development that is assessable outside of a KPA is referable to the State and must address SDAP Code 25: Development in South East Queensland Koala Habitat Areas.

The site is not mapped within a KPA; however it does contain mapped KHA (core) (refer **Figure 6**). As the development proposes to impact mapped KHA, referral to the State under SDAP State Code 25 is required.

3.5. *Water Act 2000*

Interfering with watercourses may be regulated under the *Water Act 2000*, which sets out requirements for Riverine Protection (Part 4 d (1) s218). The Water Act provides a framework for the sustainable management of Queensland's water resources and quarry material. Under the Act, a Riverine Protection Permit is required to be obtained if works within a watercourse result in filling, excavation or clearing unless these works meet an exemption.

A key element of the Water Act is its definition of what constitutes a watercourse. Under the Act (Chapter 1, Part 2, Section 5), a drainage feature is not classified as a watercourse. The Act defines a drainage feature as a natural landscape feature, including a gully, drain, drainage depression or other erosion feature that:

- Is formed by the concentration of, or operates to confine or concentrate, overland flow water during and immediately after rainfall events; and
- Flows for only a short duration after a rainfall event, regardless of the frequency of flow events; and
- Commonly, does not have enough continuing flow to create a riverine environment.

Numerous exemptions exist for activities in a watercourse. Listed exemptions are activity and location specific.

The site is mapped as containing one (1) VMA mapped watercourse which extends from the north-western portion of the site, flowing off-site to the north (refer **Figure 5**). This flow path is unmapped under the *Water Act 2000*.

Future operational work activities involving works within this flow path should consider the requirements of the Water Act, however, given the relatively small catchment, a request for a drainage feature determination from DOR is recommended. In this circumstance, the provisions of the Water Act would not apply.

3.6. *Fisheries Act 1994*

The *Fisheries Act 1994* regulates the use, conservation and improvement of Queensland's fisheries resources and fish habitats. The legislation controls the impact from coastal development on marine fish habitat, including protected marine plants, declared fish habitat areas and waterway barrier works. Development proposals that modify or have a temporary or permanent loss of fish habitat or passage are assessed by the Department of Agriculture and Fisheries (DAF).

The assessment area is mapped as containing the upstream portion of a waterway which is mapped as a *low risk waterway* for waterway barrier works (WWBW). The waterway flows downstream to the north of the site (refer **Figure 7**). A response to State Code 18 is usually required where development that proposes to create waterway barrier works within a waterway does not meet *Accepted development requirements for operational work that is constructing or raising waterway barrier works* (ADR).

It is understood that any works required within the mapped waterway are to meet the ADR or otherwise will be referred to the State at operational works.

3.7. *Biosecurity Act 2014*

The *Biosecurity Act 2014*, which commenced on 1 July 2016, establishes a framework to regulate and control invasive plants and animals. Under the Act, landowners are responsible for taking all reasonable and practical steps to minimise the risks associated with invasive plants and animals under their control. This responsibility is known as the general biosecurity obligation.

The act categorises restricted matter (restricted plants and animals) into the following:

- Category 1: must be reported to an inspector within 24 hours (includes Red Imported Fire Ants, amongst others).
- Category 2: must be reported within 24 hours Biosecurity Queensland on 13 25 23.
- Category 3: must not be distributed either by sale or gift or released into the environment.
- Category 4: must not be moved.
- Category 5: must not be kept.
- Category 6: must not be fed (animals).
- Category 7: Must be euthanised (animals).

Restricted matters observed in the site area discussed in **Section 4**.



Legend

- Site DCDB
- Qld DCDB
- High risk area - flora survey trigger

Figure 3

NCA - Protected Plants
Flora Survey Trigger

File ref. 11241 E Figure 3 NCA A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

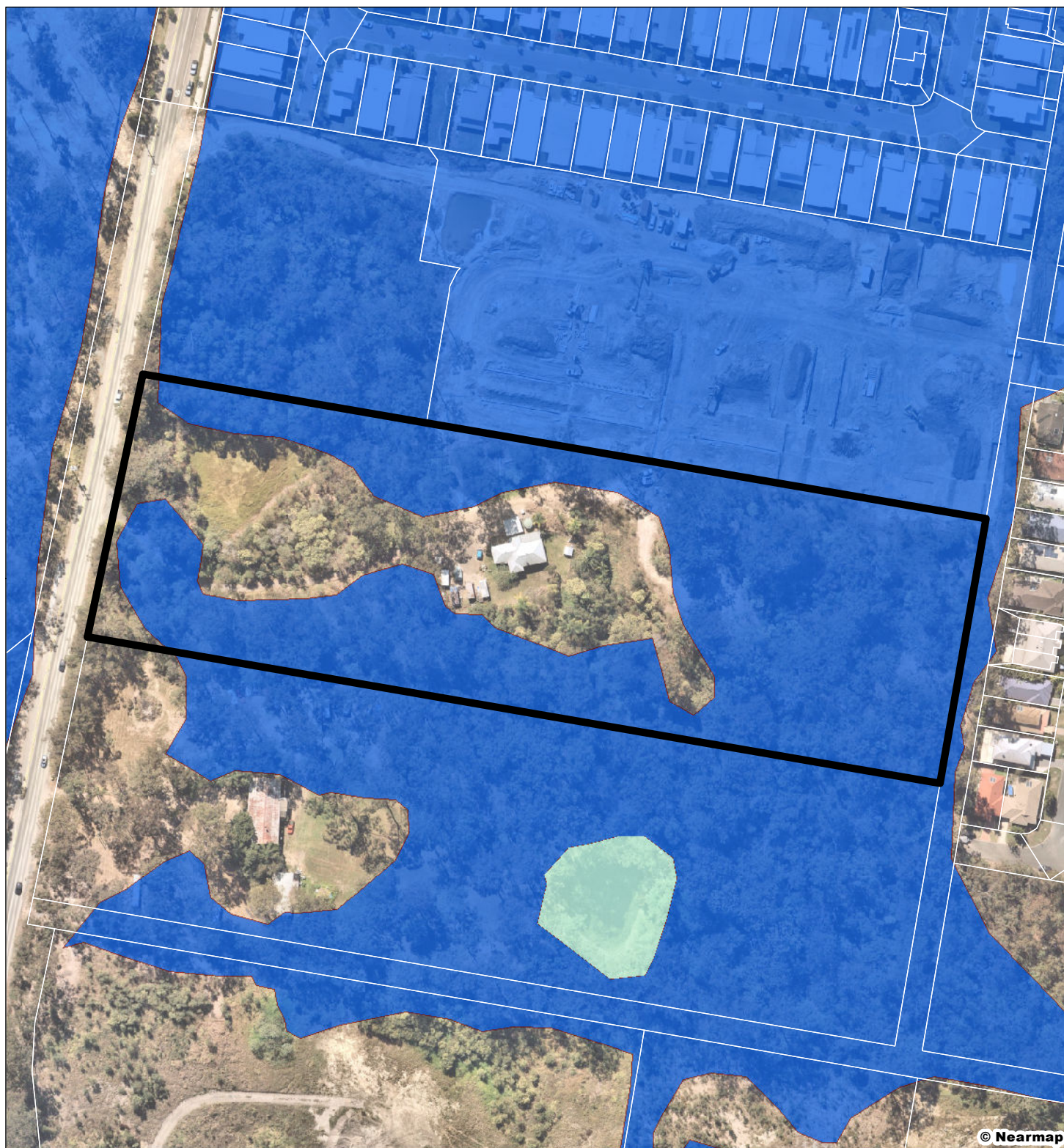
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB

Regulated Vegetation



Category A area -
Vegetation Offset/Compliance
notices/VDecs



Category B area -
Remnant vegetation



Category C area -
High value regrowth
vegetation



Category R area -
Reef regrowth
watercourse vegetation



Category X area -
Vegetation not regulated
under the VMA



Water



Area not categorised

Figure 4

Regulated Vegetation Management Map

File ref. 11241 E Figure 4 RVMM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

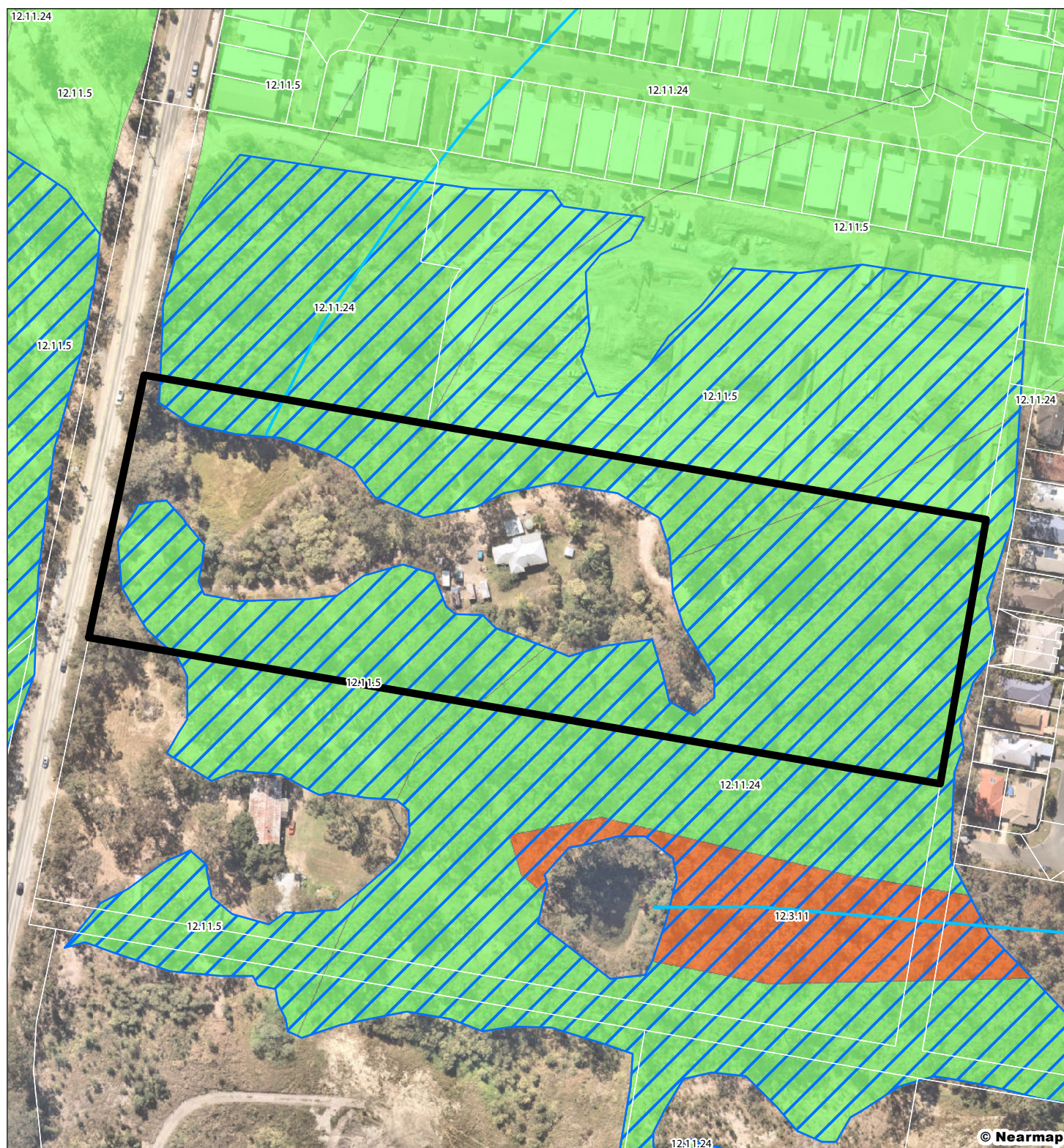
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB



VM Watercourses



VM Essential Habitat



VM Wetland

Regional Ecosystems mapping



Category A or B area containing endangered regional ecosystems



Category A or B area containing of concern regional ecosystems



Category A or B area that is a least concern regional ecosystem



Category C area containing endangered regional ecosystems



Category C area containing of concern regional ecosystems



Category C area that is a least concern regional ecosystem

Figure 5

Regulated Vegetation Supporting Map

File ref. 11241 E Figure 5 RVSM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend

-  Site DCDB
-  Qld DCDB

Koala Habitat Areas

-  Core Remnant Koala Habitat Areas
-  Core Regrowth Koala Habitat Areas
-  Locally Refined Koala Habitat Areas
-  Koala Priority Areas

Figure 6

Koala Priority Areas and
Koala Habitat Areas

File ref. 11241 E Figure 6 Koala 2019 A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend

	Site DCDB		Tidal waterway
	Qld DCDB		Fish habitat area

Waterways

Risk of Impact

-  1 - Low
-  2 - Moderate
-  3 - High
-  4 - Major

Figure 7

Fisheries - Waterways for Waterway Barrier Works

File ref. 11241 E Figure 7 Fisheries A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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3.8. Other Queensland Environmental Legislation

Other State environmental legislation has been reviewed in the context of the proposed development. **Table 4** lists other relevant Queensland legislation, the purpose of the legislation, and its relevance to the proposed development site. Refer to **Appendix D** for detailed Environmental Searches and maps.

Table 4: Site Relevant to Other Queensland Environmental Legislation

Legislation	Mapping	Purpose	Relevance to Development Site
State Planning Policy 2017	Refer Figure 8.	Provides interim development assessment requirements which ensures that state interests are considered by local government when assessing development applications where the local government planning scheme does not yet integrate the State interests in the SPP. MSES include Biodiversity, Coastal Environment, and Water Quality.	The following MSES are mapped within the subject site: Wildlife Habitat (endangered or vulnerable and Koala habitat areas – core), and Regulated Vegetation (essential habitat, wetland, intersecting a watercourse). MSES mapping overlays and requirements of the SPP are required to be incorporated into the <i>Gold Coast City Plan 2016</i> and are reflected in planning scheme overlays (refer Section 233.9.1). The development's compliance with the SPP is addressed through the provisions of the <i>Gold Coast City Plan 2016</i> .
Coastal Protection and Management Act 1995	Refer Appendix D – Map 14.	Seeks to protect the coastal resources of the coastal zone. It establishes a framework for the protection, conservation, rehabilitation and management of the coastal zone with regard to the core objectives of the national strategy for ecologically sustainable development in the use of the coastal zone.	The site is not mapped within the Coastal Management District, and therefore, a response to State Code 8 is not required.



Legend

-  Site DCDB
-  Qld DCDB
-  MSES Wildlife habitat (SEQ koala habitat - core)
-  MSES Regulated vegetation (intersecting a watercourse)
-  MSES Regulated vegetation (essential habitat)
-  MSES Regulated vegetation (category B)

Figure 8

Matters of State Environmental Significance

File ref. 11241 E Figure 8 MSES A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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3.9. Town Planning Instruments

The site is located within the jurisdiction of the CGC and is subject to the provisions of the *Gold Coast City Plan 2016*.

3.9.1 Gold Coast City Plan 2016

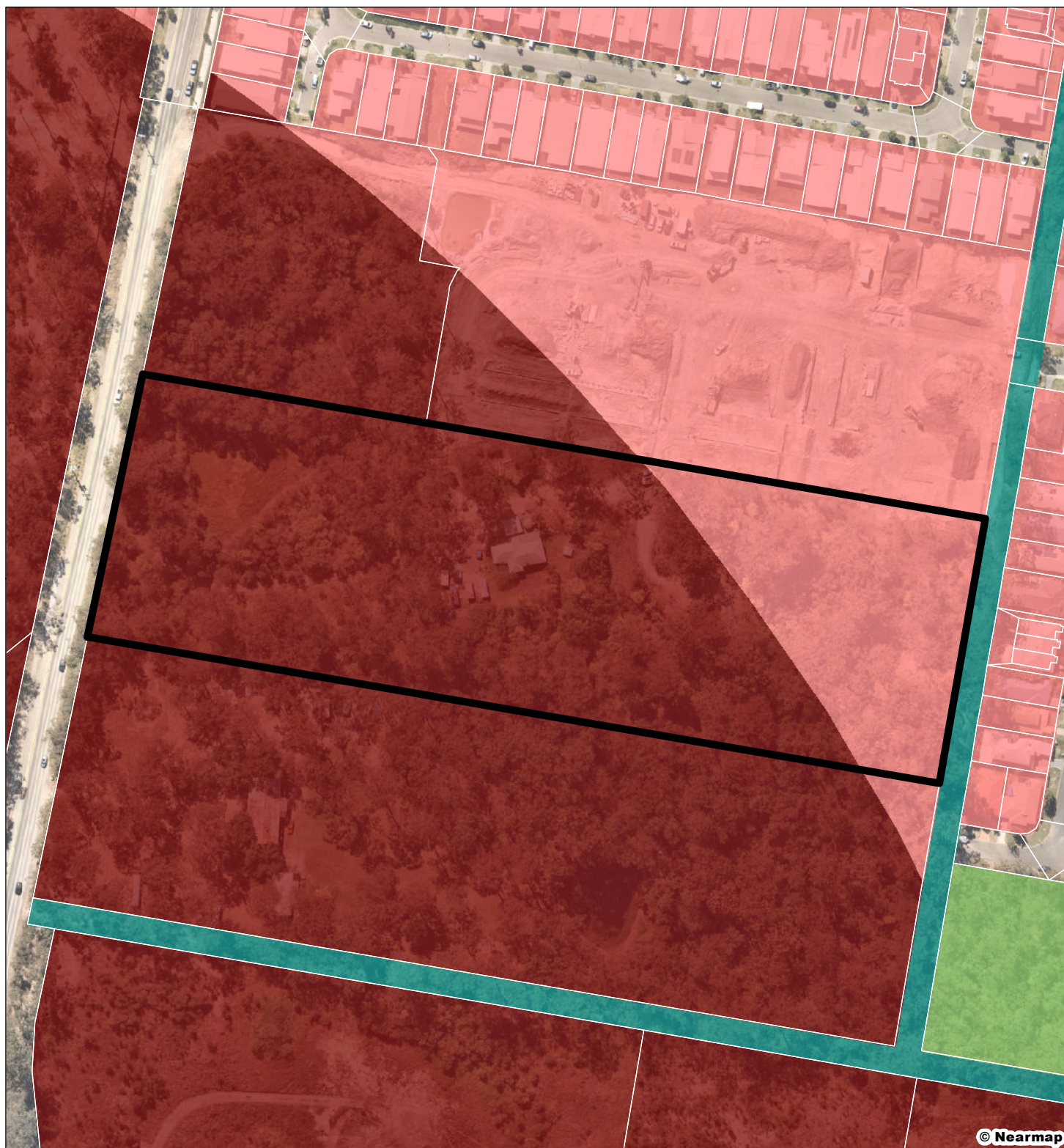
Under the *Gold Coast City Plan 2016*, the application area is zoned as High Density Residential in the western portion of the site and Medium Density Residential in the eastern portion of the site (refer **Figure 9**).

The purpose of the High Density Residential zone is to provide for higher density multiple dwellings supported by community uses and small-scale services and facilities that cater for local residents.

The site is mapped within the following overlays which were ground-truthed as part of field assessment:

- **Environmental Significance:** The site is mapped with the following sublayers:
 - **MSES – Priority Species (State Significant Species and Koala Habitat Area):** The eastern extent of the site is mapped as Matters of state environmental significance (MSES) Priority Species along with a small section to the north of the larger dam in the west. Koala Habitat Areas are mapped in the eastern extent and along some of the southern boundary. Additional Koala Habitat Area is mapped to the north of the larger dam in the west (refer **Figure 10**).
 - **Vegetation Management – MLES:** Medium priority vegetation is mapped across the site, except for the central portion of the site and western extent where a residential dwelling and constructed dam exists (refer **Figure 11**).
 - **Wetlands and Waterways – MLES (Buffer Area):** The buffer area of a minor waterway mapped to the north of the site, traverses the north-western corner of the subject site (refer **Figure 12**).

A response to *Table 8.2.6-2: Environmental significance overlay code – for assessable development* is provided in **Appendix E**.



Legend

-  Site DCDB
-  Qld DCDB

City Plan Zoning

-  Medium density residential
-  High density residential
-  Open space
-  Conservation
-  Unzoned

Figure 9

Gold Coast City Plan 2015
Zoning

File ref. 11241 E Figure 9 Zoning A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

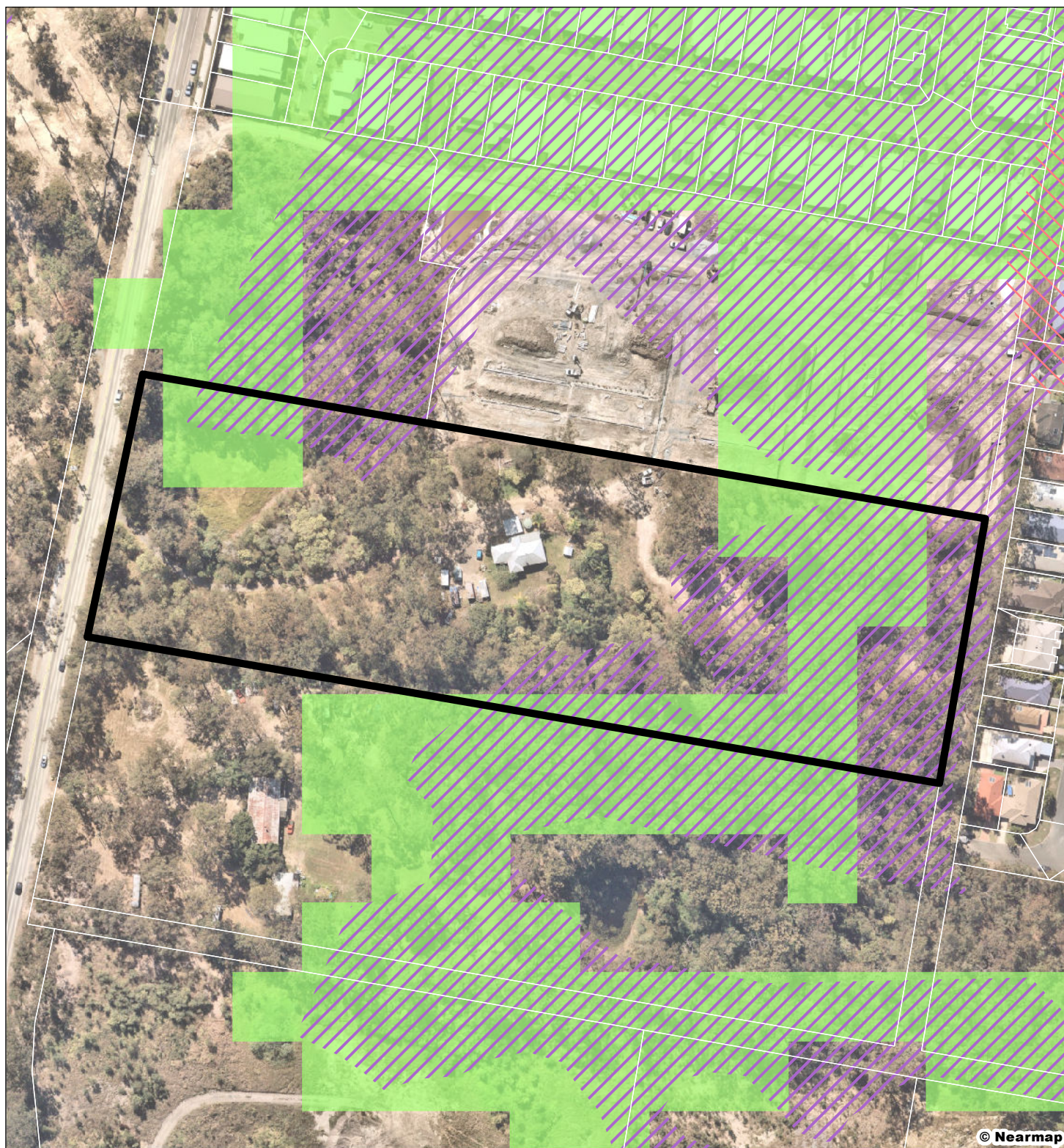
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend

-  Site DCDB
-  Qld DCDB

Priority Species

-  Koala habitat areas
-  State significant species
-  Local significant species

Figure 10

Gold Coast City Plan 2015
Environmental Significance
Priority Species

File ref. 11241 E Figure 10 Priority Species A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

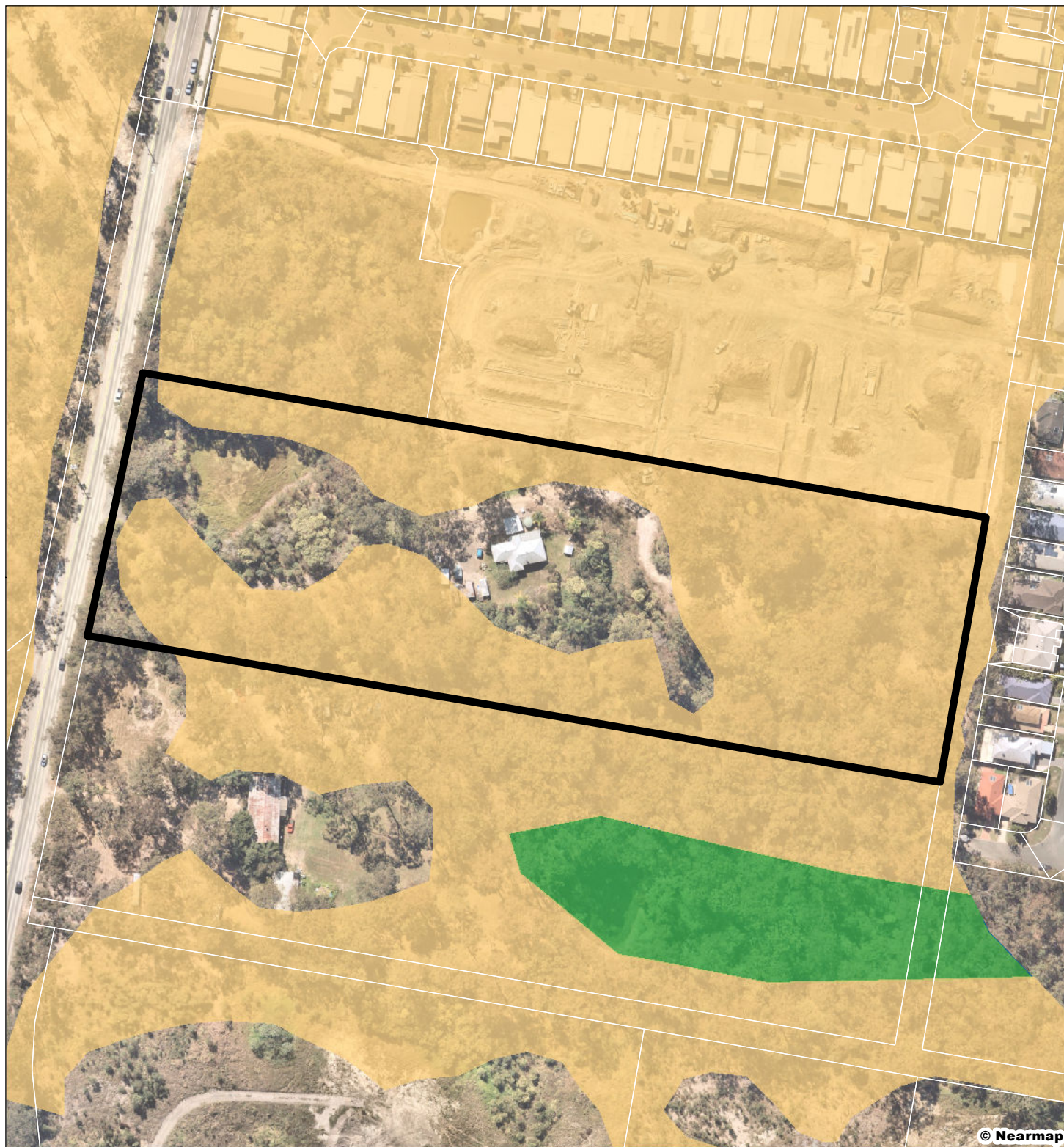
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend

- Site DCDB
- Qld DCDB

Vegetation Management

- High priority vegetation
- General priority vegetation
- Medium priority vegetation
- Regulated vegetation

Figure 11

Gold Coast City Plan 2015
Environmental Significance
Vegetation Management

File ref. 11241 E Figure 11 Vegetation Management A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB

Wetlands and Waterways



Major waterway



Minor waterway



Local significant wetlands



Wetland and waterways buffer area



Canals and Lakes

Figure 12

Gold Coast City Plan 2015
Waterways and Wetlands

File ref. 11241 E Figure 12 Wetlands and Waterways A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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4. Ecological Survey Results

Two ecologists from SHG assessed the application site on 18 October 2022, conditions were fine and sunny. The assessment area was walked to ensure all vegetation communities and flora and fauna species were recorded. Attention was also paid to any threatened flora and habitat for any threatened fauna species that were listed as possibly occurring within the assessment area, and specific micro-assemblages which may support these threatened species.

The field data collected during this period is considered to provide sufficient information to effectively understand and assess the existing ecological features and consequently the constraints that would influence the extent of developable land. The identification of ecological features considered to be of significance was facilitated through application of the field survey methodology. Field surveys were conducted in accordance with State Guidelines and the CPP. The results of the field survey are provided in **Plan 2**.

4.1. General Site Observation

The investigation area consists of a large vegetated residential allotment with a single dwelling and associated shed infrastructure in the centre of the property. Access to the site is by George Alexander Way which bounds the site to the west. An access driveway traverses from the west through to the north into the central portion of the site where the residential dwelling exists (refer to **Photo set 1**). The residential property is surrounded by planted ornamental and native species, primarily *Acacia concurrens* (Black Wattle), *Syagrus romanzoffiana* (Cocos Palm), *Eucalyptus microcorys* (Tallowwood) and *Corymbia citriodora* (Spotted Gum).

The property contains two dams, one in the north-western corner of the site and a second smaller dam in the north-eastern corner (refer **Photo set 2**). A large dam is located in the north-western corner of the property, which is surrounded by a mix of vegetation including *C. citriodora*, *Eucalyptus fibrosa* (Broad-leaved Red Ironbark) and *Eucalyptus siderophloia* (Grey Ironbark) with an understorey of *Acacia disparrima* (Hickory Wattle), *Lophostemon saueolens* (Swamp Box) and *Melaleuca saligna* (White Bottlebrush). The large dam is overgrown with sedge species. A second smaller dam is located in the north-eastern corner surrounded by vegetation including *Allocasuarina littoralis* (Black She-oak), *L. saueolens* and *C. citriodora*.



Photo set 1: Access driveway from George Alexander Way to the west (left) and residential dwelling (right).



Photo set 2: Dam in the north-western corner (left) and smaller dam in the north-eastern corner (right).

4.2. Vegetation Communities

4.2.1 Category B (remnant) vegetation

The site is mapped partially as Category B (remnant) vegetation containing Least Concern RE 12.11.5 along the western section of the northern and southern boundaries (refer **Photo set 3**) and Least Concern RE 12.11.24 in the eastern portion (refer to **Photo set 4**). Descriptions of the REs are provided below:

RE12.11.5: *Corymbia citriodora* subsp. *variegata* open forest to woodland, usually including *Eucalyptus siderophloia*/*E. crebra* (sub coastal ranges), *E. propinqua* and *E. acmenoides* or *E. carnea*. Other species that may be present and abundant locally include *Corymbia intermedia*, *C. trachyphloia* subsp. *trachyphloia*, *Eucalyptus tereticornis*, *E. microcorys*, *E. portuensis*, *E. helidonica*, *E. major*, *E. longirostrata*, *E. biturbinata*, *E. moluccana* and *Angophora leiocarpa*. *Lophostemon confertus* often present in gullies and as a sub-canopy or understorey tree. Mixed understorey of grasses, shrubs and ferns. Occurs on hills and ranges of Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics.

RE12.11.24: *Eucalyptus carnea* or *E. tindaliae*, *Corymbia intermedia* woodland +/- *E. crebra* or *E. siderophloia*, *Eucalyptus resinifera*, *Eucalyptus major*, *E. helidonica*, *Angophora woodsiana*, *C. trachyphloia*, *E. microcorys*, *Corymbia citriodora* subsp. *variegata*, *C. henryi*. Occurs on Palaeozoic and older moderately to strongly deformed and metamorphosed sediments and interbedded volcanics usually at altitudes <300 metres.

Vegetation composition varies throughout the project area typically as a result of historical disturbances. Canopy species are dominated by the indicator species of the mapped RE12.11.5 including *Corymbia citriodora*, *Eucalyptus siderophloia*, *E. propinqua* and *E. acmenoides*. Scattered *E. fibrosa* and *Eucalyptus carnea* (Broad-leaved White Mahogany) are also present. The understorey and sub-canopy consist of *A. disparrima*, *A. concurrens*, *L. sauveolens* and *Allocasuarina littoralis*. The ground layer across the site consists of a mix of native and exotic species including *Imperata cylindrica* (Blady Grass), *Dianella caerulea* (Blue Flax-lily), *Heteropogon*

contortus (Black Speargrass), *Themeda triandra* (Kangaroo Grass), *Chrysocephalum apiculatum* (Yellow Buttons), *Senecio madagascariensis* (Fireweed), and *Ageratum houstonianum* (Blue Billygoat Weed).



Photo set 3: ***Vegetation along the southern border reflective of mapped RE12.11.5.***



Photo set 4: ***Vegetation in the eastern portion of the property within mapped RE12.11.24.***

4.2.2 Category X (non-remnant) vegetation

Category X (non-remnant) vegetation is mapped within the central portion of the site. Vegetation in this area is limited to scattered eucalypt trees with limited diversity and structural complexity in the understorey, comprised of scattered regrowth eucalypts and *Acacia sp.* (refer **Photo set 5**). This area reflects previous land uses and modifications associated with the constructed dam in the north-west and residential dwelling in the centre of the site.



Photo set 5: Category X (non-remnant) cleared areas.

4.3. Flora Survey Results

The EPBC Act PMR listed four (5) TECs considered to have potential to be found within the area (refer **Section 3.1**). These are described as Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland, Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community, Subtropical eucalypt floodplain forest and woodland of New South Wales North Coast and South East Queensland bioregions, Lowland Rainforest of Subtropical Australia and Subtropical and Temperate Coastal Saltmarsh. No TECs were observed on-site. In addition, seventeen (17) flora species are listed under the EPBC Act as having potential to occur within a 5 km radius (refer **Section 3.1**). No threatened species were recorded at the time of assessment or have been recorded historically.

- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland. In Queensland, this TEC is part of RE communities 12.2.7, 12.3.4/12.3.4a, 12.3.5, 12.3.6 and 12.3.20. None of these REs occur within the site or immediate vicinity.
- The Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland Ecological community occurs in coastal catchments, mostly at elevations of less than 20 m above sea level that are typically found within 30 km of the coast however distance can vary by catchment. The canopy layer is dominated by *C. glauca* (Swamp Oak) and in Queensland is represented by RE12.1.1 or RE12.3.20 (Previously 12.3.5a). No Coastal Swamp Oak (*Casuarina glauca*) individuals were observed on or proximal to site, nor were the regional ecosystems listed as being associated with this TEC.
- Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions. In Queensland, this TEC corresponds with at least 17 Regional Ecosystems. Components of this TEC are recognised within 12.3.2, 12.3.2a, 12.3.3, 12.3.3a, 12.3.3d, 12.3.4a, 12.3.7, 12.3.7c, 12.3.7d, 12.3.10, 12.3.11, 12.3.11a, 12.3.11b, 12.3.12, 12.3.14a, 12.3.15 and 12.3.19. None of these REs occur within the site or immediate vicinity.
- The Lowland Rainforest of Subtropical Australia TEC typically has high species richness. In Queensland, this TEC is part of a number of RE communities including 12.3.1, 12.5.13, 12.8.3, 12.8.4, 12.8.13, 12.11.1, 12.11.10, 12.12.1 and 12.12.16. None of these RE communities occur on-site or within the immediate vicinity of the site.

- The Subtropical and Temperate Coastal Saltmarsh (hereafter Coastal Saltmarsh) ecological community occurs within a relatively narrow margin of the Australian coastline. The physical environment for the ecological community is coastal areas under regular or intermittent tidal influence. This regional ecosystem is confined to land zone 1 (tidal flats and beaches), names RE 12.1.2 which includes saline or brackish sedgeland; and occurs on Quaternary estuarine deposits and marine plains/tidal flats. None of these RE communities occur on-site or within the immediate vicinity of the site.

A search of the NCA Wildlife Online database listed six (6) threatened flora species as possibly occurring within the area, refer **Section 3.2**. None of these species were recorded during the field survey.

4.3.1 Threatened Flora

For the purposes of this report, a significant flora species was a species:

- Scheduled as Critically Endangered, Endangered, Vulnerable or Conservation Dependent under the Commonwealth EPBC Act; and/or
- Scheduled as Endangered, Vulnerable, or Near Threatened (EVNT) under the Queensland NCA; and/or
- Identified by Council as a locally significant species.

No significant flora species were encountered on-site.

4.3.2 Native flora species

During the field survey, seventy-two (72) flora species were recorded across the site, with forty-three (43) considered native species (refer **Table 5**).

Table 5: Observed native flora

Scientific name	Common name
<i>Acacia concurrens</i>	Black Wattle
<i>Acacia deanei</i>	Green Wattle
<i>Acacia disparrima</i>	Hickory Wattle
<i>Acacia leiocalyx</i>	Early-flowering Black Wattle
<i>Acacia melanoxylon</i>	Australian Blackwood
<i>Acacia podalyriifolia</i>	Silver Wattle
<i>Allocasuarina littoralis</i>	Black She-oak
<i>Alphitonia excelsa</i>	Soap Tree
<i>Centella asiatica</i>	Pennywort
<i>Chrysocephalum apiculatum</i>	Yellow Buttons
<i>Corymbia citriodora</i>	Spotted Gum
<i>Corymbia intermedia</i>	Pink Bloodwood
<i>Cynodon dactylon</i>	Common couch
<i>Cyperus haspan</i>	Flat Sedge

Scientific name	Common name
<i>Dianella caerulea</i>	Blue Flax-lily
<i>Eleocharis dulcis</i>	Water Chestnut
<i>Eucalyptus acmenoides</i>	White Mahogany
<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark
<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark
<i>Eucalyptus microcorys</i>	Tallowwood
<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum
<i>Eucalyptus siderophloia</i>	Grey Ironbark
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Eustrephus latifolius</i>	Wombat Berry
<i>Gahnia aspera</i>	Saw Sedge
<i>Geitonoplesium cymosum</i>	Scrambling Lily
<i>Goodenia rotundifolia</i>	Star Goodenia
<i>Hardenbergia violacea</i>	native Sarsaparilla
<i>Heteropogon contortus</i>	Black Spear Grass
<i>Hibbertia aspera</i>	Trailing Guinea Flower
<i>Imperata cylindrica</i>	Blady Grass
<i>Lepironia articulata</i>	Grey Rush
<i>Lobelia purpurascens</i>	White Root
<i>Lophostemon suaveolens</i>	Swamp Box
<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark
<i>Melaleuca saligna</i>	Willow Bottlebrush
<i>Melicope elleryana</i>	Pink Doughwood
<i>Ottocloa gracillima</i>	Graceful Grass
<i>Ozothamnus cupressoides</i>	Kerosene bush
<i>Parsonsia straminea</i>	Monkey Rope
<i>Pultenaea villosa</i>	Hairy Pea Bush
<i>Themeda triandra</i>	Kangaroo Grass

4.3.3 Introduced flora species

Of the seventy-two (72) species recorded during the field survey across the site, twenty-nine (29) are considered introduced species (refer **Table 6**). It should be noted that five (5) of these species are listed as restricted matters under the *Biosecurity Act 2014* (discussed in **Section 3.7**). Restricted invasive plants under the *Biosecurity Act 2014* are to be managed at the Local Government level through a biosecurity plan that covers invasive plants and animals in its area.

Table 6: Observed introduced flora

Scientific name	Common name	Restricted under Biosecurity Act 2014	BCC Priority
<i>Ageratina adenophorum</i>	Crofton Weed		
<i>Ageratum houstonianum</i>	Blue Billygoat Weed		
<i>Alternanthera brasiliana</i>	Purple Joyweed		
<i>Asparagus aethiopicus</i>	Ground Asparagus Fern	Category 3	
<i>Convolvulus arvensis</i>	Field blindweed		
<i>Conyza sumatrensis</i>	Tall Fleabane		
<i>Corymbia torelliana</i>	Cadaghi		
<i>Desmodium intortum</i>	Greenleaf Desmodium		
<i>Dyopsis lutescens</i>	Golden Cane Palm		
<i>Emilia sonchifolia</i>	Emilia		
<i>Hypochaeris glabra</i>	Annual Flatweed		
<i>Lantana camara</i>	Lantana	Category 3	Very Low
<i>Nephrolepis cordifolia</i>	Fishbone Fern		
<i>Passiflora suberosa</i>	Corky Passion Vine		
<i>Pinus elliotii</i>	Slash Pine		
<i>Ricinus communis</i>	Castor Oil		
<i>Schefflera actinophylla</i>	Umbrella Tree		
<i>Senecio madagascariensis</i>	Fireweed	Category 3	Low
<i>Senna pendula</i>	Easter Cassia		
<i>Setaria sphacelata</i>	South African Pigeon Grass		
<i>Solanum chrysotrichum</i>	Giant Devil's Fig		
<i>Solanum mauritianum</i>	Wild Tobacco		
<i>Solanum seaforthianum</i>	Brazilian Nightshade		
<i>Sphagneticola trilobata</i>	Singapore Daisy	Category 3	Very Low
<i>Spiraea prunifolia</i>	Bridalwreath spirea		
<i>Sporobolus pyramidalis</i>	Giant Rat's Tail Grass	Category 3	High
<i>Syagrus romanzoffiana</i>	Cocos Palm		
<i>Tephrosia purpurea</i>	Ahuhu		
<i>Verbena bonariensis</i>	Purple-top Verbena		

4.3.4 GPS tree plot

A GPS Tree Plot Survey was carried out on-site locating and identifying all trees with a DBH greater than 100 millimetres (mm) (measured at 1.4 m above ground) and CGC habitat trees. Data from the GPS Tree Plot Survey has been extracted and summarised below (refer to **Plan 2** and **Appendix F** for the Tree Schedule).

- The GPS Tree Plot Survey recorded 25 tree species, where 19 of these are native species and 6 are considered to be invasive / weed species. **Table 7** provides a summary of the results of the GPS Tree Plot Survey completed.
- The most abundant species recorded was identified as *Corymbia citriodora* (Spotted Gum) which made up approximately 15% (94 specimens) of the tree plot, followed by *Allocasuarina littoralis* (Black She-oak) with 12.79% (78 specimens) and *Eucalyptus microcorys* (Tallowwood) with 12.62% (77 specimens) (refer **Table 7**).
- **Table 8** provides a summary of the total DBHs of trees recorded during field survey. The vegetation is predominantly comprised of trees with a DBH between 100 and 300 mm with a total of 448 or 73.45% recorded. This indicates that the vegetation within the site is mostly reflective of regrowth status.

Table 7: Tree plot summary

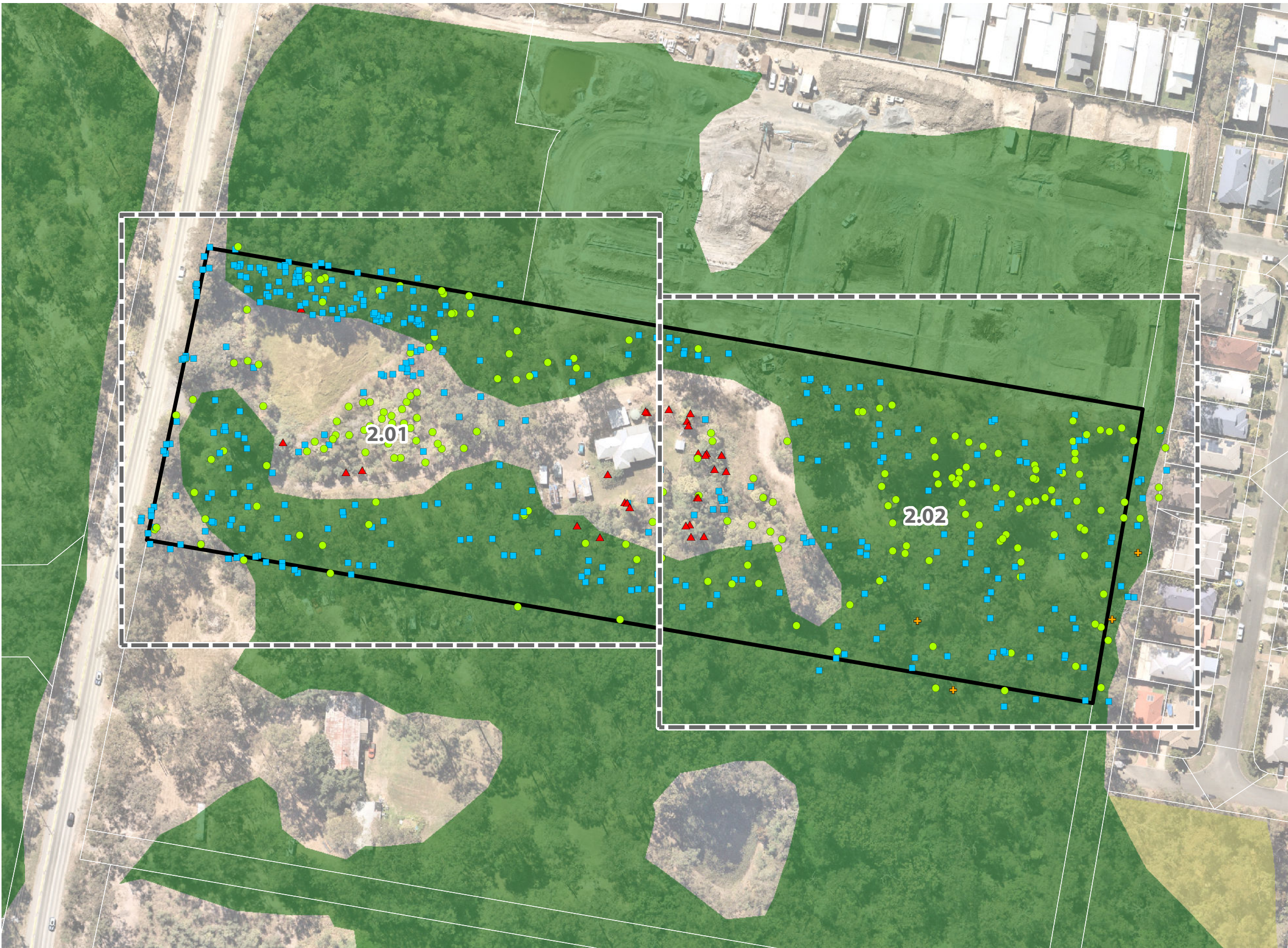
Scientific name	Common name	Native/introduced	Number recorded	Percentage recorded
<i>Acacia concurrens</i>	Black Wattle	Native	70	11.48%
<i>Acacia disparrima</i>	Hickory Wattle	Native	45	7.38%
<i>Acacia leiocalyx</i>	Early Flowering Black Wattle	Native	5	0.82%
<i>Acacia melanoxylon</i>	Australian Blackwood	Native	2	0.33%
<i>Allocasuarina littoralis</i>	Black She-oak	Native	78	12.79%
<i>Alphitonia excelsa</i>	Soap Tree	Native	1	0.16%
<i>Corymbia citriodora</i>	Spotted Gum	Native	94	15.41%
<i>Corymbia intermedia</i>	Pink Bloodwood	Native	48	7.87%
<i>Corymbia torelliana</i>	Cadaghi	Introduced	6	0.98%
<i>Dyopsis lutescens</i>	Golden Cane Palm	Introduced	4	0.66%
<i>Eucalyptus acmenoides</i>	White Mahogany	Native	2	0.33%
<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	Native	13	2.13%
<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	Native	26	4.26%
<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	Native	6	0.98%
<i>Eucalyptus microcorys</i>	Tallowwood	Native	77	12.62%
<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	Native	19	3.11%
<i>Eucalyptus siderophloia</i>	Grey Ironbark	Native	44	7.21%
<i>Eucalyptus tereticornis</i>	Forest Red Gum	Native	24	3.93%
<i>Lophostemon suaveolens</i>	Swamp Box	Native	1	0.16%
<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	Native	15	2.46%
<i>Melaleuca saligna</i>	Willow Bottlebrush	Native	1	0.16%
<i>Pinus elliotii</i>	Slash Pine	Introduced	7	1.15%
<i>Schefflera actinophylla</i>	Umbrella Tree	Introduced	1	0.16%

Scientific name	Common name	Native/introduced	Number recorded	Percentage recorded
<i>Solanum mauritianum</i>	Wild Tobacco	Introduced	1	0.16%
<i>Syagrus romanzoffiana</i>	Cocos Palm	Introduced	1	0.16%
Total			610	100.00

Table 8: Tree plot DBH summary

DBH (mm)	Number recorded	Percentage Recorded (%)
100-200	345	56.56%
200-300	103	16.89%
300-400	69	11.31%
400-500	52	8.52%
500-600	25	4.10%
600-700	7	1.15%
700-800	4	0.66%
800-900	4	0.66%
900-1000	1	0.16%
Total	610	100.00

2.00 GPS Tree Plot



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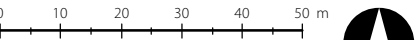
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Legend

-  Site DCDB
-  Qld DCDB
- Koala Habitat Areas**
 -  Core Remnant Koala Habitat Areas
 -  Core Regrowth Koala Habitat Areas
- GPS Tree Plot**
 -  Native Tree
 -  Non-juvenile Koala Habitat Tree
 -  Introduced Species/Environmental Weed
 -  Dead/Stag Tree

Issue	Date	Description	Drawn	Checked
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2/02/2023 | 11241 E 02 GPS Tree Plot A

2.01 GPS Tree Plot



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Site DCDB

Qld DCDB

Koala Habitat Areas

Core Remnant Koala Habitat Areas

Core Regrowth Koala Habitat Areas

GPS Tree Plot (w/ TPZ)

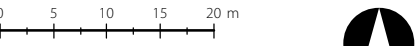
Native Tree

Non-juvenile Koala Habitat Tree

Introduced Species/ Environmental Weed

Dead/Stag Tree

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW

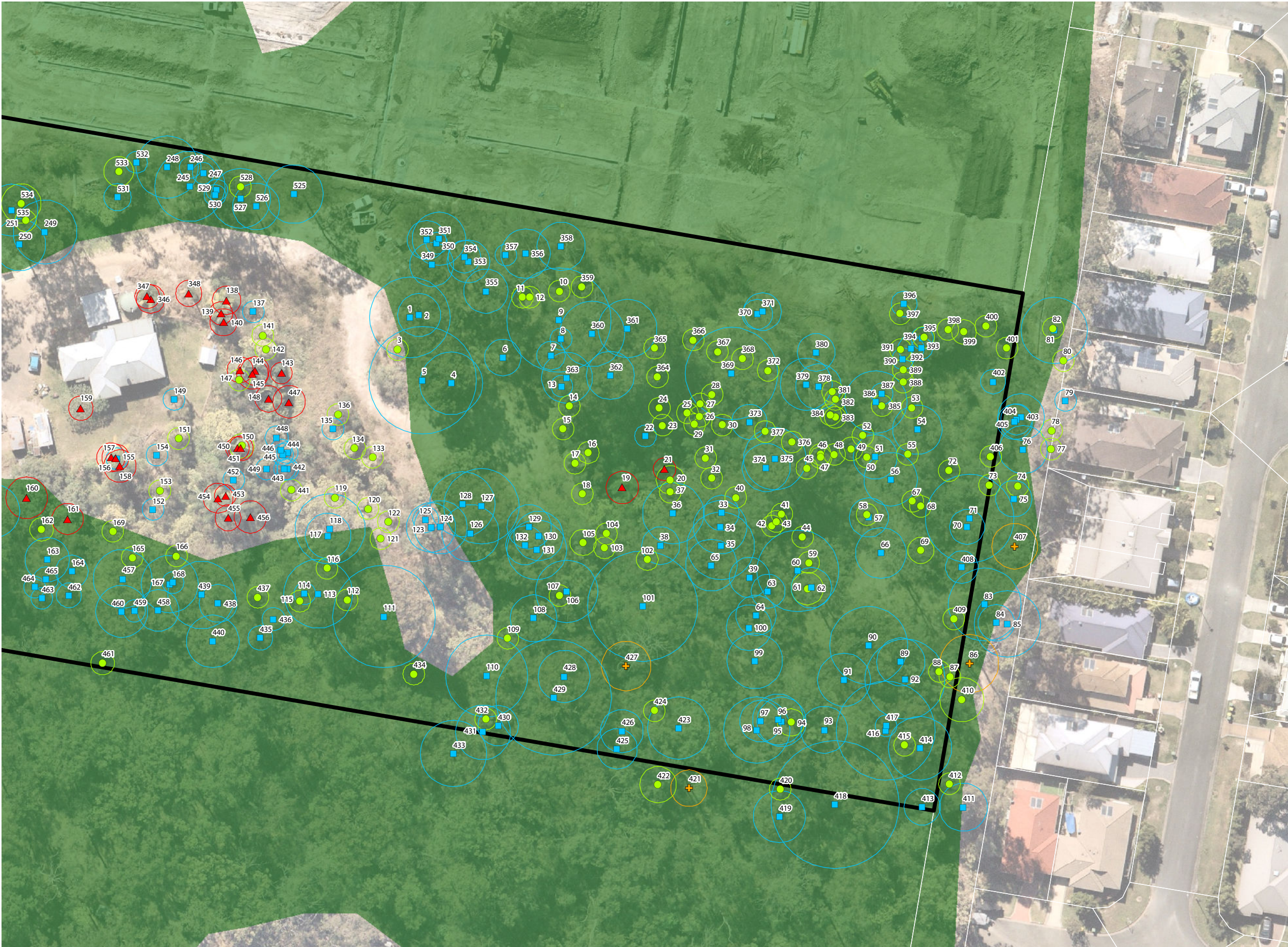


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2/02/2023 | 11241 E 02_1 GPS Tree Plot A

2.02 GPS Tree Plot



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Site DCDB

Qld DCDB

Koala Habitat Areas

Core Remnant Koala Habitat Areas

Core Regrowth Koala Habitat Areas

GPS Tree Plot (w/ TPZ)

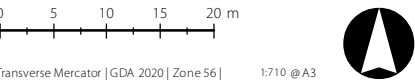
Native Tree

Non-juvenile Koala Habitat Tree

Introduced Species/ Environmental Weed

Dead/Stag Tree

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



4.4. Fauna Observations

A detailed fauna assessment was conducted across the subject site to identify and describe on-ground habitat features (e.g., habitat trees, fallen logs, termite mounds or roosting sites), signs of fauna activity (e.g., scats, tracks, scratch marks on trees or nests) and observations of species present within the area. Methodology utilised is listed in **Section 2.2**.

The following observations were made based on the field survey:

- The PMST identified twenty-nine (29) fauna species as possibly occurring on site. A Wildlife Online Search listed twelve (12) protected fauna species as possibly occurring on site.
- Fauna species observed across the site were mostly consistent with that observed in peri-urban environments and rural agistment properties. No threatened fauna species listed under the EPBC Act or NCA were observed during field survey, nor are they considered likely to occur on-site, attributable to the highly disturbed state of the environmental features on-site. The site contains potential habitat for Koala due to the presence of mature eucalypt trees. Indirect evidence of Koala was observed in the form of scats and scratch marks. Refer to **Section 4.3.1** for an assessment of Koala usage over the site.
- The subject site has undergone some disturbance and general property maintenance, although vegetation values remain relatively intact across the site due to the presence of abundant mature eucalypt canopy species. The subcanopy and ground layer is somewhat modified with a mix of native and exotic species present throughout. The shrub layer is sparse and is dominated by regrowth, with some invasive species present, namely *Lantana camara* (Lantana).
- Notable habitat values within the assessment area are mostly confined to vegetated areas that contain a defined canopy, sub-canopy and shrub layer, larger DBH trees compared to the rest of the site and a higher proportion of woody debris.
- A total of eight (8) fauna species were observed within the assessment area or as fly-over species during the field survey effort in 2022 (refer **Table 9**). This included six (6) bird species, one (1) amphibian and one (1) reptile.

Table 9: Fauna species observed on-site

Scientific name	Common name	Native / introduced	Detection Method
Birds			
<i>Corvus orru</i>	Torresian Crow	Native	Observed
<i>Cracticus nigrogularis</i>	Pied Butcherbird	Native	Observed
<i>Dacelo novaeguineae</i>	Laughing Kookaburra	Native	Observed
<i>Gymnorhina tibicen</i>	Australian Magpie	Native	Observed
<i>Manorina melanocephala</i>	Noisy Minor	Native	Observed
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	Native	Observed
Amphibian			
<i>Litoria fallax</i>	Eastern Sedgefrog	Native	Observed
Reptiles			
<i>Lampropholis delicata</i>	Grass Skink	Native	Observed

4.4.1 Threatened Fauna

No threatened species listed under the EPBC Act or NCA were directly observed within the site. However, evidence of Koala in the form of scats was recorded (refer **Photo set 6**). It is acknowledged that the site has capacity to support Koala with evidence of Koala detected on-site.



Photo set 6: Koala scats observed on-site.

4.5. Waterway

A mapped low risk (green) waterway for WWBW intersects the north-western portion of the site. The waterway is mapped as the upstream part of the waterway and traverses a small segment north of the dam which flows offsite to the north. A flow path was observed on-ground leading from the dam to the north (refer **Photo 7**).



Photo 7: Area north of dam wall and waterway flow path.

4.6. Council Overlays

4.6.1 Environmental Significance Area Overlay

Under the Environmental Significance overlay, the site is mapped as ‘medium priority vegetation’ and ‘regulated vegetation’ and ‘priority species – koala habitat areas’ and ‘priority species – state significant species.’

The areas mapped as ‘medium priority vegetation’ aligns with the regulated vegetation mapping and is dominated by mature eucalypts namely *E. siderophloia* (Grey Ironbark) and *E. microcorys* (Tallowwood).

Field surveys confirmed on-ground vegetation values to generally reflective the mapped overlays.

A response to the Environmental Significance overlay code is provided in **Appendix E**.

4.6.2 Waterways and Wetlands Overlay

A small portion of ‘wetland and waterways buffer area’ intersects the north-western boundary of the site. The vegetation within this area is low-lying and adjoins the dam wall to the south. *Melaleuca quinquenervia* (Broad-leaved Paperbark) are scattered throughout this area.

5. Development Assessment

5.1. Development Assessment

The proposed development will deliver 24 residential allotments ranging in size from 324 to 638 m² with internal roads and a bioretention basin. The proposed development is designed to connect to the constructed development directly to the north and provide a future road connection to the south of the site. Refer to **Appendix A** for the development layout.

The site is zoned as high-density residential and medium density residential under the *Gold Coast City Plan 2016*. The site is located within a landscape that is earmarked to undergo significant urban development to support the rapid expansion of the Coomera Town Centre. Notably, the lots located to the south and north of the site are similarly zoned as medium and high-density residential, with residential development already under construction on land to the north. The proposal for a residential subdivision is consistent with the local planning intent for the site.

The proposed development footprint is located in the eastern portion of the site. The central portion of the site contains highly modified values including an existing dwelling, cleared areas and planted vegetation. Remnant eucalypt woodland is located in the eastern portion of the site and across a portion of the western area in an irregular shaped polygon. A small dam is located in the north-eastern corner of the site and a larger dam is located in the north-western portion of the site, located upstream of a mapped low risk waterway under the *Fisheries Act 1994*. No notable waterway features were identified.

To implement the proposed development, a large portion of the site will be impacted as a result of the necessary required cut and fill earthworks to facilitate the development. This includes direct impact to 1.56 ha area of Koala habitat area (core), 1.56 ha of medium priority vegetation under the City Plan Environmental significance – environmental management overlay, and impacts to state significant species and Koala habitat areas mapped under the Environmental significance – priority species overlay in the eastern portion of the site (refer

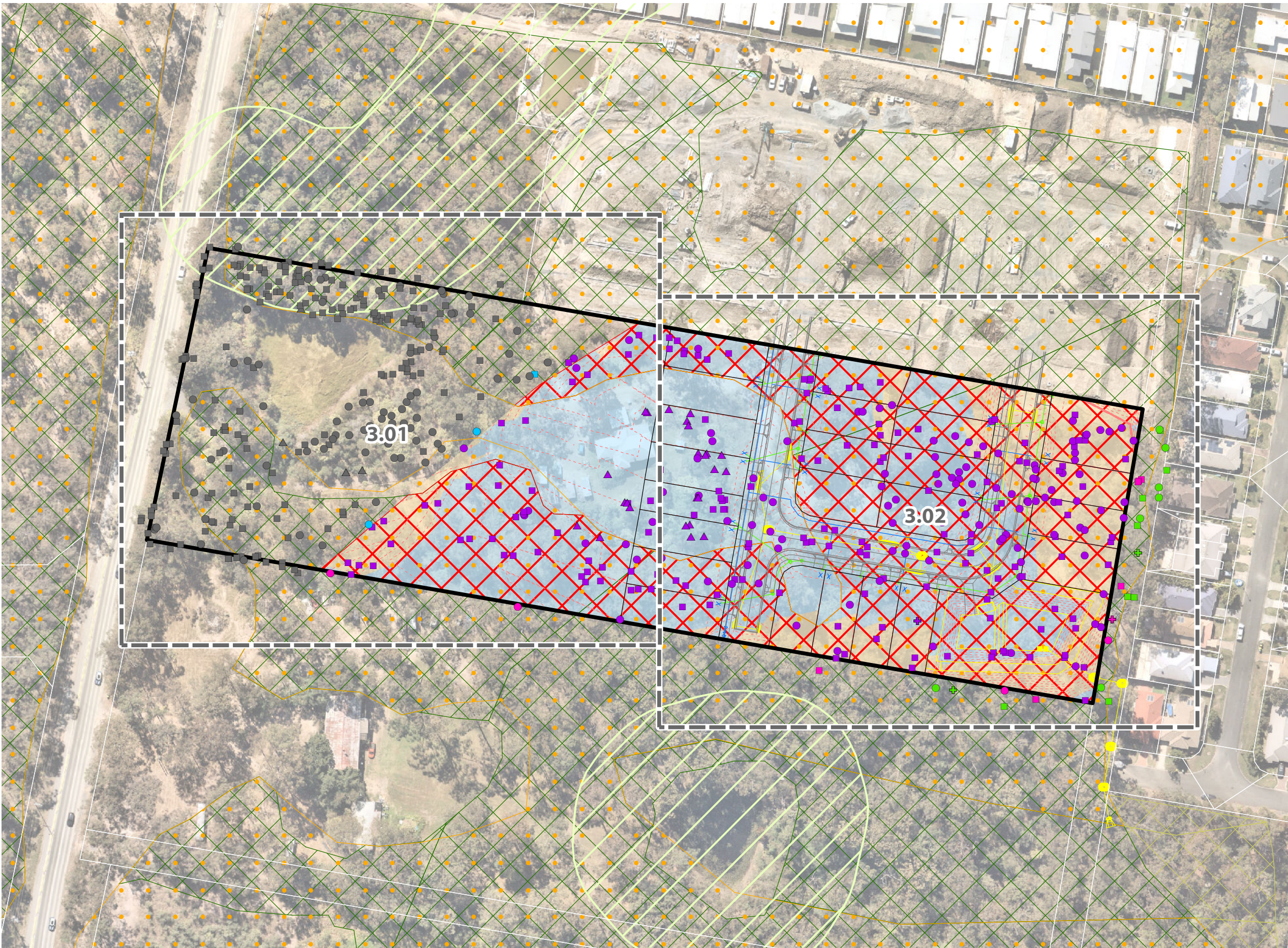
Plan 3). Notably, the wetlands and waterway buffer area will not be impacted (refer **Plan 3**).

Due to the small size of the site, irregular mapping of KHA on-site, and planning intent for the site and surrounding areas, it is not considered feasible to retain areas of vegetation in the development design. A development design that wholly avoids medium priority vegetation areas, state significant species mapping and KHA is not considered viable.

A response to the SDAP State Code 25 addressing impacts to Koala habitat areas will be submitted with this EAR.

A response to the Environmental Significance overlay code is provided in **Appendix E**.

3.00 Development Assessment



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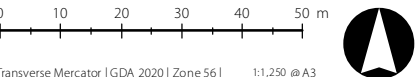
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Legend

- Site DCDB
- Qld DCDB
- State and Local Overlays**
 - Core Remnant Koala Habitat Areas
 - Core Regrowth Koala Habitat Areas
 - Koala Habitat Impacted [1.56 ha]
 - Gold Coast City Council Wetland and Waterways Buffer
 - Gold Coast City Council Medium Priority Vegetation
- Engineering Detail**
 - Proposed Lot Boundaries
 - Proposed Road Design
 - Proposed Sewer Design
 - Proposed Stormwater Design
 - Proposed Water Design
 - Design Contours
 - Earthworks (Extent of Cut)
 - Earthworks (Extent of Fill)
- GPS Tree Plot**
 - Tree to retain
 - Tree retention subject to arborist assessment
 - Tree retention subject to arborist assessment, and neighbour consent if removal is required
 - Tree to remove
 - Tree not subject to this application
 - Non-juvenile Koala Habitat Tree
 - Native Tree
 - Dead/Stag Tree
 - Introduced Species/ Environmental Weed

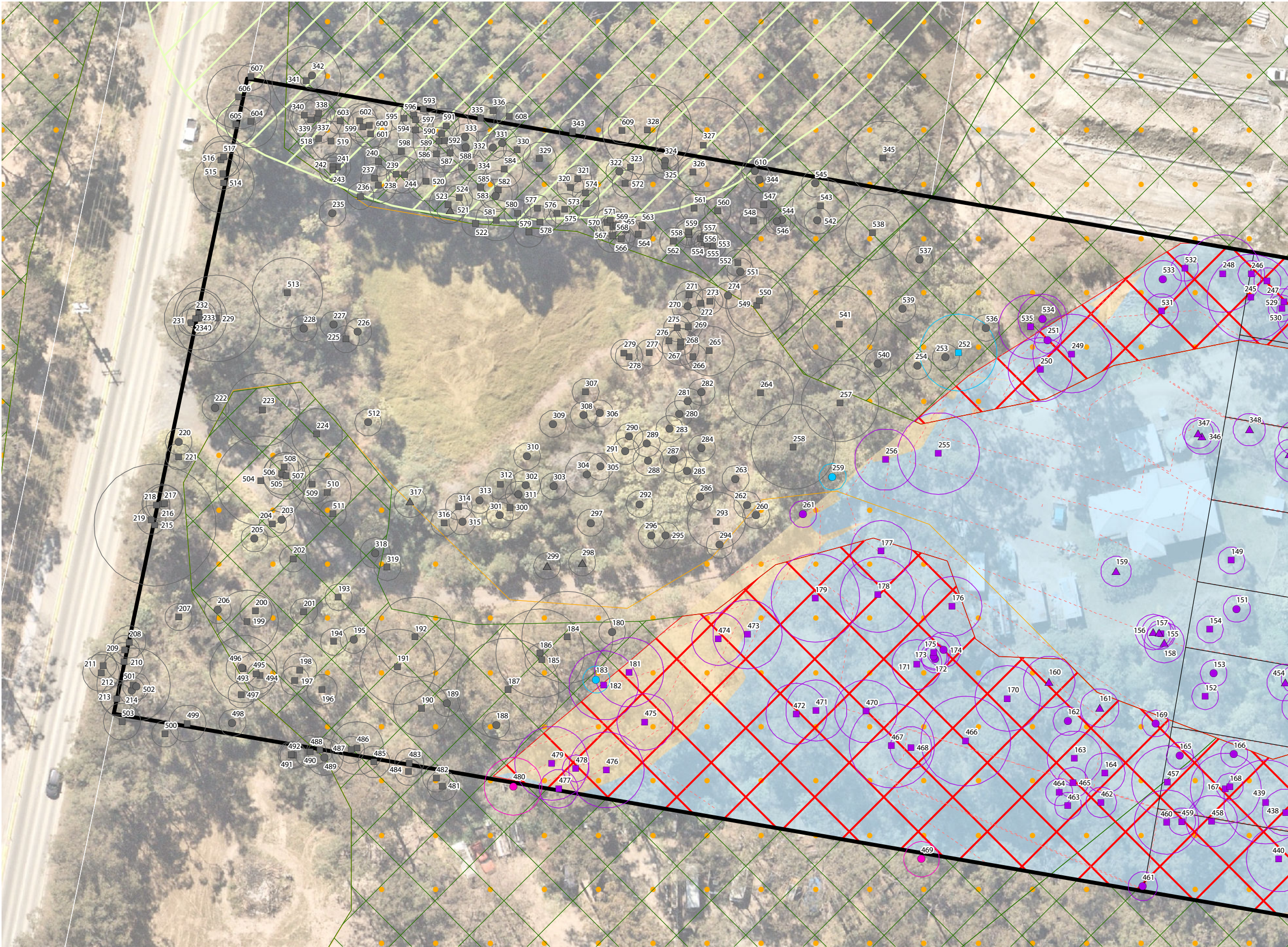
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2/02/2023 | 11241 E 03 Development Assessment A

3.01 Development Assessment



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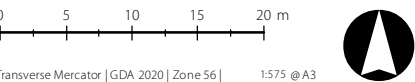
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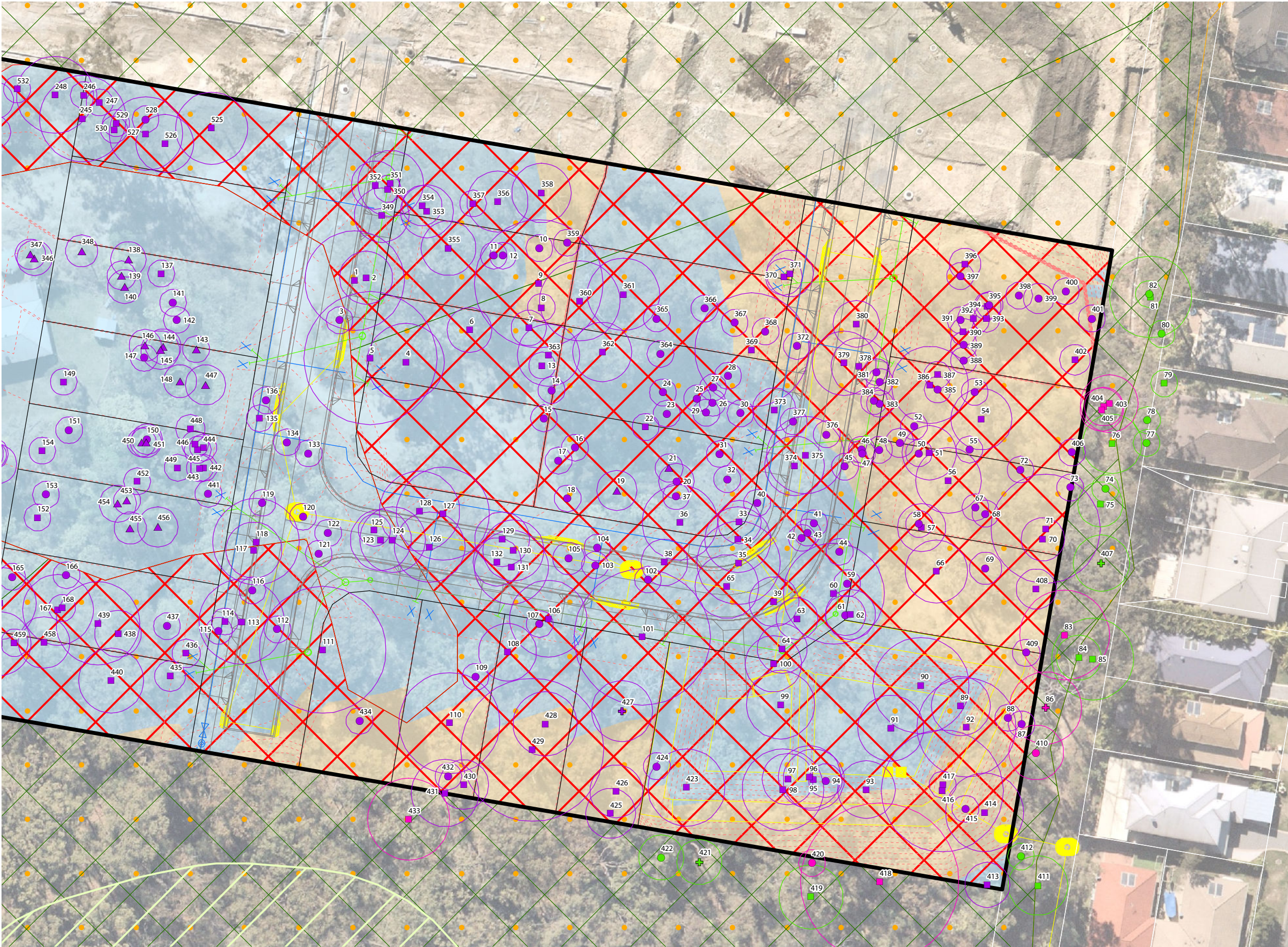
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3.02 Development Assessment



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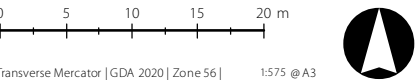
Engineering Detail

- Proposed Lot Boundaries
- Proposed Road Design
- Proposed Sewer Design
- Proposed Stormwater Design
- Proposed Water Design
- Design Contours
- Earthworks (Extent of Cut)
- Earthworks (Extent of Fill)

GPS Tree Plot

- Tree to retain
- Tree retention subject to arborist assessment
- Tree retention subject to arborist assessment, and neighbour consent if removal is required
- Tree to remove
- Tree not subject to this application
- Non-juvenile Koala Habitat Tree
- Native Tree
- Dead/Stag Tree
- Introduced Species/ Environmental Weed

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



5.2. Potential impacts

The key potential ecological impacts associated with the development proposal are described herein. A list of potential impacts during varying phases of the proposed development is presented in **Table 10**.

Table 10: Summary of Potential Impacts

Construction Phase	Operation Phase (ongoing disturbance)
▪ Vegetation Clearing ▪ Weeds ▪ Vehicle movements ▪ Earthworks ▪ Light emissions during construction ▪ Noise and vibration ▪ Waste disposal ▪ Hazardous and dangerous goods ▪ Increased human presence	▪ Weed incursion ▪ Vehicle strike ▪ Noise and light pollution ▪ Increased human presence

5.2.1 Vegetation clearing

Unavoidable clearing of modified vegetation values and remnant eucalypt woodland areas is required to establish the residential areas and access roads.

The subject site is predominantly comprised of Category B (remnant) vegetation with a large area of Category X (non-remnant) vegetation containing modified vegetation values within the central and western portion of the site. The property is currently used as semi-rural residential lot.

5.2.2 Weeds

Increased vehicle movement during the construction phase has the potential to increase the spread of weeds in the area, particularly during the vegetation clearing phase. Portions of the site have a relatively high incidence of weed incursion and established exotic ornamentals. With the implementation of standard mitigation measures and improvement measures as part of the development, it is not anticipated that an increase in weed presence will occur on and adjoining the site.

5.2.3 Vehicle movements

During construction, a large number of vehicles will be required on-site. Direct impact from vehicle movements on threatened species and vegetation communities include:

- damage or destruction of vegetation or fauna habitat by vehicles traversing these areas; and
- fauna strike.

Indirect impacts include:

- interference of fauna through visual and noise impacts. This may affect feeding, roosting, breeding or nesting behaviour;
- introducing and/or spreading weeds or feral animals carried on or in vehicles, resulting in deterioration or loss of vegetation and important fauna habitat; and
- damage or destruction of vegetation and fauna habitat through smothering by dust generated by vehicles traversing the site.

With the implementation of standard mitigation measures, the development is likely to result in a temporary and minor impact to ecological values due to vehicular movements. Further, ecological field survey confirmed mainly common avi-fauna are present on-site. It is unlikely that the site supports permanent residence of macropods or Koala.

5.2.4 Earthworks

Construction activities have the potential to generate dust emissions. Dust emissions during construction will be temporary. The main sources of dust will be generated via:

- wheel-generated dust from the haul roads created for the construction phase;
- dust lift-off from exposed surfaces (e.g. construction roads and pads);
- earthworks, including construction of the embankments, and moving, dumping and shaping material; and
- vegetation and soil clearing of the land.

Excessive deposition of dust on leaves of plants can suppress the growth and photosynthesis, resulting in reduced habitat quality for fauna. High levels of airborne dust can irritate the respiratory systems of fauna and potentially result in ingestion of dust-coated seeds and other foods. Excessive deposition of dust on open water bodies may also degrade water quality and overall habitat quality for fauna. With the implementation of standard mitigation measures, the development is likely to result in a temporary and minor impact to ecological values due to the generation of dust.

5.2.5 Light emissions during construction

Artificial light can affect both nocturnal and diurnal animals by disrupting behavioural patterns, with quality of light (e.g. wavelength, colour), intensity and duration potentially evoking different faunal responses. Impacts from increased light levels include disorientation from, or attraction toward, artificial sources of light; mortality from collisions with structures; and effects on light-sensitive cycles of species (e.g. breeding and migration for fauna and flowering in plants). An artificial increase in lighting can also affect abundance of predators.

Presence and intensity of artificial light in the development area will temporarily increase during the construction phase, however, night works will not be common. Lighting will be directed to construction areas within the site. Some light spillage will be inevitable and is likely to be contained mainly for security reasons

around the site compound. Potential impacts associated with light emissions will be temporary and unlikely to be significant.

With the implementation of standard mitigation measures, the development is likely to result in a negligible impact to ecological values due to the use of light pollution during construction.

5.2.6 Noise and vibration

Noise levels greater than existing ambient noise levels are expected during the construction within the development area. Sources of noise are likely to consist of noise in short, intense pulses from mobile plant equipment, and more prolonged noise, with consistent vibration, pitch and volume from generators, excavators and pumps, in addition from noise from vehicles.

Both steady continuous and single noise events have the potential to lead to ecological impacts. Construction noise is expected to elicit some avoidance response from fauna using the surrounding vegetation though, with consideration of the extent of habitat available in the development area, this is likely to be a temporary and negligible to minor impact.

5.2.7 Waste disposal

Inappropriate disposal of non-hazardous wastes can attract vermin and other wildlife to site. This may exacerbate potential impacts (e.g. road mortality). Litter may also enter surrounding environments. With the implementation of standard mitigation measures, the project is likely to result in a negligible impact to ecological values due to the generation and handling of waste.

5.2.8 Hazardous and dangerous goods

Spills and leaks from transfers (fuel, chemicals) and inadequate storage of dangerous goods and hazardous wastes could result in point-source contamination of surrounding land. Direct adverse impacts could include toxic impacts on vegetation (resulting in degradation or loss of vegetation and habitats), direct toxic impacts on fauna (from contact, inhalation or ingestion) or indirect impacts on threatened and migratory species from habitat loss. Direct adverse impacts on surface and groundwater quality are also possible.

With the application of standard mitigation and management measures, impacts from liquid and solid waste disposal will be avoided or localised and small in scale. Further to this, the likelihood of significant spillages is considered low. Therefore, the development is likely to result in a negligible impact to ecological values due to potential spills and leaks.

5.2.9 Increased human presence

Increased human activity during construction has the potential to disturb fauna both within adjacent habitat areas. Examples of impacts included heightened vigilance and predator avoidance, which can disrupt foraging and roosting efficiency, or deter wildlife from using particular areas. Impacts essentially represent a reduction in core habitat due to edge effects. The development is likely to result in a temporary and minor impact to ecological values due the increased human presence on-site during construction.

5.3. Ongoing disturbances

After completion of construction, the ongoing presence of infrastructure and increased human activity can continue to have potential for adverse direct and indirect impacts. The key continuing risks to ecological values include:

- weed incursion;
- vehicle movements;
- noise and light; and
- increased human presence.

Each potential impact associated with ongoing use of the site is described in detail in the following sections.

5.3.1 Weed incursion

Residential gardens and landscaping of common areas will introduce a variety of new and exotic species to the area. Garden escapes have the potential to be introduced into adjacent bushland areas through vectors such as birds, wind and runoff. Weed incursion will be an ongoing and can be difficult to prevent. Nonetheless, the problem is often mostly constrained to edges of bushland that abut gardens and along urban waterways. Importantly, the development site is already heavily weeded and retention areas will be buffered.

With the implementation of standard mitigation measures, the development is not likely to exacerbate adverse impacts to ecological values due the introduction and spread of weeds.

5.3.2 Vehicle strike

Upon completion of the development, there will be a significant increase of vehicle traffic (compared to baseline conditions) and this will increase the likelihood of fauna strike. The probability of fauna strike is reduced due to the fact that most fauna will generally avoid urban areas. Notwithstanding this, a low number of fauna may occasionally enter the area and be at risk of vehicular strike. However, given the low connectivity within the area, the risk of vehicle strike is considered to be negligible.

5.3.3 Noise and light

Noise levels are likely to increase once residents move into the areas as there will be increased vehicular and pedestrian traffic. Road noise will be the primary source of noise impact.

Artificial light from industrial lighting may affect nocturnal and diurnal animals by disrupting patterns, with quality of light (e.g. wavelength, colour), intensity and duration potentially evoking different responses. Impacts from increased light levels include disorientation from or attraction toward artificial sources of light; mortality from collisions with structures; and effects on light-sensitive cycles of species (e.g. breeding and migration for fauna and flowering in plants). The presence and intensity of artificial light may have most impact at the edges of adjacent vegetation. With the implementation of standard mitigation measures, the development is likely to result in a negligible impact to wildlife due to light spillage.

5.3.4 Increased human presence

Increased human activity associated with land uses within the development has the potential to disturb fauna that exist within the broader area. Examples of impacts included heightened vigilance and predator avoidance, which can disrupt foraging and roosting efficiency, or deter wildlife from using particular areas.

5.4. Management and compensatory measures

A number of management and compensatory measures are proposed to minimise and offset impacts associated with the development. These are discussed in the following subsections.

5.4.1 Avoidance Measures

The proposed development has been located within the eastern portion of the site within the Medium Density Residential Zone of the *Gold Coast City Plan 2016*. The development footprint has been located wholly outside of the MLES waterway buffer.

5.4.2 Vegetation Clearing and Fauna Management Plan

A Vegetation Clearing and Fauna Management Plan (VCFMP) should form part of the broader management document submitted as part of the operational works application for the development site. The VCFMP should cover clearing of all vegetation listed in this report and include details on:

- Clearly show trees to be removed.
- All civil works likely to impact on existing vegetation.
- Temporary and permanent exclusion and protection fencing.
- Roles and responsibilities for site contractors, the developer and the consultant group.
- Stockpiling and site access locations.
- Fauna species surveyed as using the site with a focus on those most likely impacted by development works.
- A list of relevant State and Commonwealth legislation constraints and controls for the above listed fauna.
- A plan showing existing habitat opportunities and locations.
- A clearing sequence plan showing the commencement of clearing and direction of removal.
- Details of the threats to existing fauna species.
- Management and mitigation measures, e.g. temporary use of fauna exclusion fencing.
- Fauna spotter role, contacts and certification.
- Specific fauna management procedures for potential or known habitat trees.
- Links to weed management and revegetation proposals.
- The stock piling and reuse of cleared vegetation.

5.4.3 Koala Management Plan

A Koala Management Plan (KMP) is proposed to be completed in accordance with the State Government Supported Infrastructure Koala Conservation Policy 2017. The purpose of this KMP is to provide a single explanatory management document for the inclusion in the design, construction and operation of the development. The objectives of this KMP are as follows:

- 1) To highlight the existing flora, fauna and ecosystem values on the subject site and in surrounding areas;
- 2) Describe key results from survey data, including Koala occurrence and the availability and quality of habitat;
- 3) Identify key direct and indirect impacts on Koalas and describe proposed avoidance and mitigation measures; and,
- 4) List out actions and legislative requirements to be implemented to manage construction impacts.

5.4.4 Fauna Spotter Catcher Supervision

It is recommended that all vegetation clearing for the proposed development be supervised by a DES approved Fauna Spotter Catcher to minimise the potential impacts and adverse outcomes for fauna disturbed during vegetation clearing. In addition, prior to vegetation clearing taking place, a preclearing assessment will be required to be undertaken by a qualified fauna spotter catcher to provide a contemporary assessment of likely fauna present within areas to be cleared, and to ensure strategies are in place to manage the safe removal and relocation of fauna within the clearing areas.

5.4.5 Koala Habitat Area Offsets

As the development layout will result in removal of non-juvenile koala habitat trees (NJKHTs) within Koala habitat areas, the proposed development application will require referral to State Assessment Referral Agency (SARA) and assessment against the Performance Outcomes of *SDAP Code 25: Development in South East Queensland koala habitat areas*.

In order to meet the Performance Outcomes of the *SDAP Code 25: Development in South East Queensland koala habitat areas*, an environmental offset will be required to compensate for the proposed impacts to NJKHT within Koala habitat areas. The environmental offset for impacts on Koala habitat areas will be required to be provided to DES, and will need to be in accordance with the requirements of the *Queensland Environmental Offset Policy*.

As detailed in the accompanying State Code 25 Response Report, the proposed development will impact approximately 1.56 ha with a total of 150 NJKHTs within mapped KHA proposed to be removed. To compensate for the removal of 150 NJKHT, and to comply with the performance outcomes of State Code 25, a financial Environmental Offset will be provided. The DES Environmental Offset Calculator indicates that a financial offset obligation of **\$ 138,000.00** will be required to offset the impacts associated with removal of 150 NJKHTs within Koala habitat area.

5.5. Medium Priority Vegetation Offsets

Under the *Gold Coast City Plan 2016*, clearing of medium priority vegetation mapped in the Environmental Significance Vegetation Management Overlay map is required to be offset in accordance with the SC6.9 City Plan policy – Environmental offsets. The site is mapped as containing medium priority vegetation according to the Environmental Significance Vegetation Management Overlay map, therefore an environmental offset would ordinarily be required for impacts to this value.

However, the area of medium priority vegetation to be impacted on the site is analogous to the mapped Koala habitat area proposed to be impacted. It is expected that an environmental offset will be provided in accordance with the *Queensland Environmental Offset Policy* for the proposed impacts on the mapped Koala habitat area. Therefore, to avoid environmental offset duplication (as outlined in Section 1.1.3 of the *Queensland Environmental Offset Policy*) it is anticipated that no environmental offset for impacts to *Gold Coast City Plan 2016* mapped medium will be required, as impacts to this value will be addressed through the required offset for impacts to state mapped Koala habitat area.

6. Conclusion

This EAR was prepared on behalf of Coomera GA Pty Ltd who seek to develop land at 54 George Alexander Way, Coomera, Queensland 4209, described as Lot 96 on RP187418 to deliver 24 new residential allotments and relevant infrastructure. This EAR provides a contemporary review of the ecological values across the site in accordance with Commonwealth, State and Local Government Legislation.

Overall, the following conclusions were made:

- The assessment area has been used as a rural residential allotment with some modifications on-site including the construction of dams, a residential dwelling and associated infrastructure. Mature eucalypt woodland is located across the site and is dominant in the eastern portion of the site. Dominant species observed include *E. siderophloia* (Grey Ironbark) and *E. microcorys* (Tallowwood).
- Evidence of Koala activity was recorded in the form of scats throughout the site; however, direct observations of Koala were not recorded, suggesting Koala may utilise the vegetation on-site in a transient capacity.
- Detailed ecological field survey did not directly identify threatened species or TECs listed under the EPBC Act as present, nor were any flora species listed under the NCA observed within the assessment area.
- The site is mapped as Category X (non-remnant) vegetation through the middle of the site and north-western dam. Category B (remnant vegetation) described as Least Concern 12.11.24 and Least Concern 12.11.5 is mapped across the balance of the site. Regional Ecosystem characteristics across the assessment area reflect RE12.11.5 and RE12.11.24.
- A total of seventy-two (72) flora species were recorded across the site, with forty-three (43) considered native species and twenty-nine (29) introduced / invasive species.
- A total of eight (8) fauna species were observed within the assessment area or as fly-over species during the field survey effort in 2022. Most fauna species observed are common urban and peri-urban species. Indirect evidence of Koala in the form of scats was observed within the assessment area.
- Potential impacts to Koala will be managed through the implementation of a site-specific Vegetation Clearing and Fauna Management Plan and Koala Management Plan as detailed in **Section 5.4**.
- A response to the SDAP State Code 25 addressing impacts to Koala habitat areas will be submitted in conjunction with this EAR. Significant residual impacts on KHAs will be offset in accordance with the *Environmental Offsets Act 2014*.
- Impacts to Gold Coast City Plan medium priority vegetation mapped in the Environmental Significance Vegetation Management overlay are analogous to the impacts on state KHA which are to be offset under the Queensland Environmental Offsets Policy, Therefore, to avoid duplication of offsets, and environmental offset in accordance with SC6.9 City Plan policy – Environmental offsets is not required for the proposed impacts to medium priority vegetation.

7. Appendices

Appendix A

Development Layout

Appendix B

Environment Protection and Biodiversity Conservation Act 1999

Protected Matters Report

Appendix C

Nature Conservation Act 1992

Wildlife Online Search Results

Appendix D

Environmental Searches

Appendix E

Response to Environmental Significance Overlay Code

Gold Coast City Plan V9

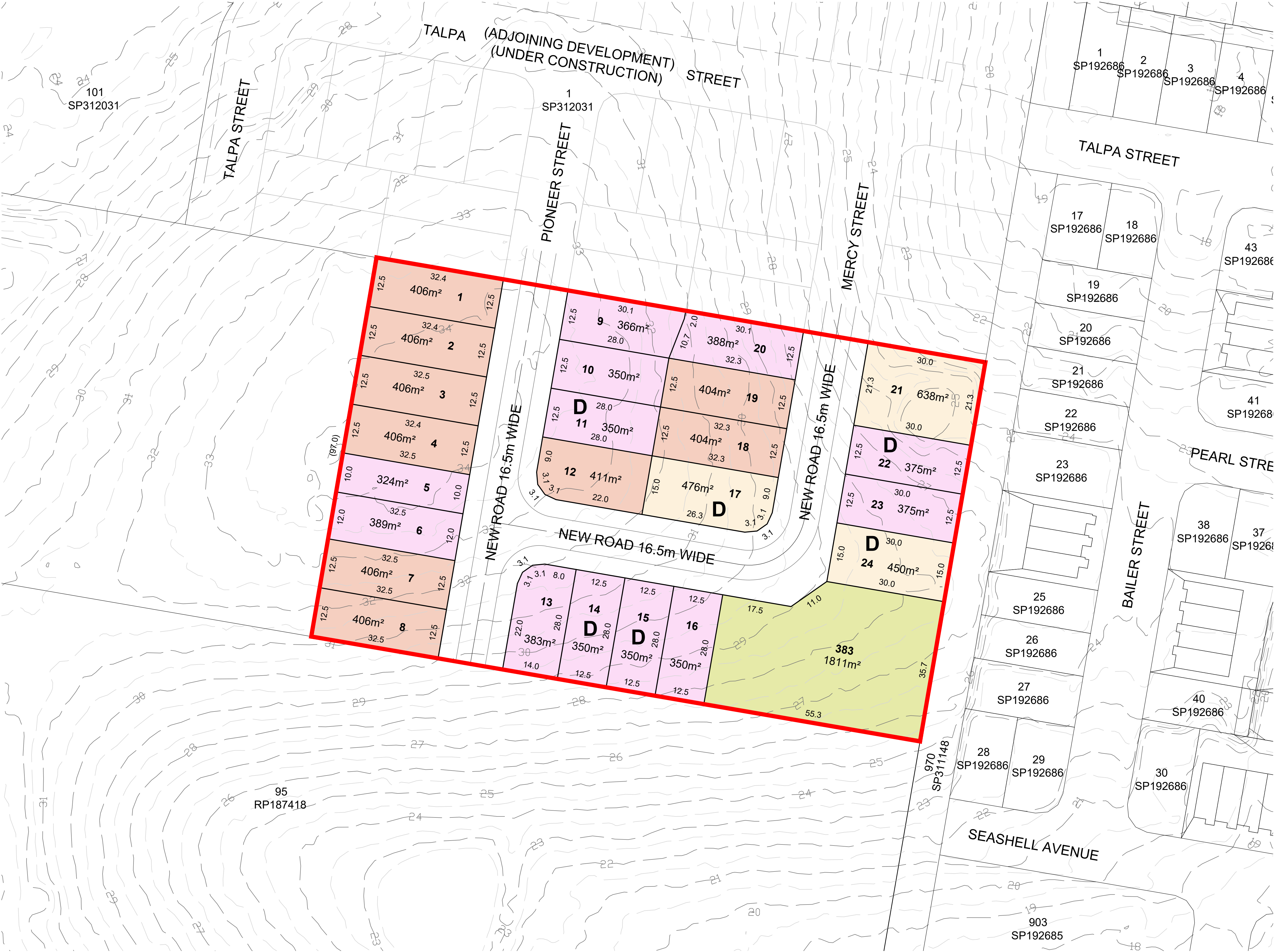
Appendix F

Tree Schedule

Appendix A

Development Layout

STAGE 2 - PROPOSAL PLAN



NOT TO BE USED FOR ENGINEERING DESIGN OR CONSTRUCTION

NOTES

This plan was prepared as a provisional layout to accompany a development application. 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 subdivision design or for any financial dealings involving the land.

Pavements and centrelines shown are indicative only and are subject to Engineering Design.

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.

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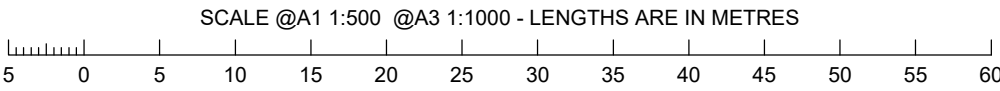
SUBJECT BOUNDARIES FROM LOT CALCULATIONS BY SAUNDERS HAVILL GROUP DATED 12/01/2023

LEGEND

- Site Boundary
- Major Contour (1.0m interval)
- Minor Contour (0.5m interval)
- D Dual Occupancy Lots

DEVELOPMENT STATISTICS			
RESIDENTIAL ALLOTMENTS	No. Lots	%	Net Area
350m² - < 400m²	12	50.0%	0.435 ha
400m² - < 450m²	9	37.5%	0.365 ha
> 450m²	3	12.5%	0.156 ha
Total Residential Allotments	24	100.0%	0.956 ha
Land Budget	Area (Ha)	%	
Area of Subject Site / Stage	3.010 ha	—	
Net Residential Area (no roads)	0.956 ha	31.761%	
Detention / Drainage	0.181 ha	6.013%	
Road Areas	0.373 ha	12.392%	
Balance (Lot 900)	1.50 ha	49.834%	

RP DESCRIPTION: LOT 96 on RP187417



COOMERA GA PTY LTD ATF THE COOMERA GA UNIT

Appendix B

*Environment Protection and Biodiversity
Conservation Act 1999*
Protected Matters Report



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 21-Oct-2022

[Summary](#)

[Details](#)

[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	49
Listed Migratory Species:	17

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	22
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	13
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	
Moreton bay	Within 10km of Ramsar site	

Listed Threatened Ecological Communities	[Resource Information]
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For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community likely to occur within area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area

Listed Threatened Species	[Resource Information]
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Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.

Number is the current name ID.

Scientific Name	Threatened Category	Presence Text
BIRD		
Anthochaera phrygia		
Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area
Botaurus poiciloptilus		
Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
Erythroriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat may occur within area
FROG		
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area
INSECT		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area
MAMMAL		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Dasyurus maculatus maculatus (SE mainland population) Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat known to occur within area
Potorous tridactylus tridactylus Long-nosed Potoroo (northern) [66645]	Vulnerable	Species or species habitat may occur within area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat likely to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
PLANT		
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat likely to occur within area
Baloghia marmorata Marbled Balogia, Jointed Baloghia [8463]	Vulnerable	Species or species habitat may occur within area
Bosistoa transversa Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat may occur within area
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
Cryptostylis hunteriana Leafless Tongue-orchid [19533]	Vulnerable	Species or species habitat may occur within area
Cupaniopsis shirleyana Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat may occur within area

Scientific Name	Threatened Category	Presence Text
Endiandra floydii Floyd's Walnut, Crystal Creek Walnut [52955]	Endangered	Species or species habitat likely to occur within area
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area
Macadamia tetraphylla Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat may occur within area
Phaius australis Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
Planchonella eerwah Shiny-leaved Condoo, Black Plum, Wild Apple [17340]	Endangered	Species or species habitat likely to occur within area
Plectranthus habrophyllus [64589]	Endangered	Species or species habitat likely to occur within area
Rhodamnia rubescens Scrub Turpentine, Brown Malletwood [15763]	Critically Endangered	Species or species habitat likely to occur within area
Rhodomyrtus psidioides Native Guava [19162]	Critically Endangered	Species or species habitat likely to occur within area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat likely to occur within area
Thesium australe Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat may occur within area
Vincetoxicum woollsii listed as Tylophora woollsii [40080]	Endangered	Species or species habitat may occur within area

REPTILE

Scientific Name	Threatened Category	Presence Text
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Hemiaspis damelii Grey Snake [1179]	Endangered	Species or species habitat may occur within area

Listed Migratory Species	[Resource Information]	
Scientific Name	Threatened Category	Presence Text
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area
Migratory Wetlands Species		

Scientific Name	Threatened Category	Presence Text
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species		[Resource Information]
Scientific Name	Threatened Category	Presence Text
Bird		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area overfly marine area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area

Scientific Name	Threatened Category	Presence Text
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area overfly marine area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
Lathamus discolor Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis Black-faced Monarch [609]		Species or species habitat likely to occur within area overfly marine area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area

Scientific Name	Threatened Category	Presence Text
Rostratula australis as Rostratula benghalensis (sensu lato)		
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area

Extra Information

EPBC Act Referrals			[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status
Controlled action			
Coomera Woods Master Planned Development, 49 & 51 George Alexander Way, Coomera, Qld	2017/8134	Controlled Action	Further Information Request
Coomera Woods master planned residential development, Qld	2015/7610	Controlled Action	Completed
Jacobs Well Airport	2004/1361	Controlled Action	Completed
Jacobs Well Airport Project	2003/947	Controlled Action	Completed
Not controlled action			
Coomera Hospital and Health Precinct	2021/8946	Not Controlled Action	Completed
Develop Stage 1 & 2 (Lots 21, 23 & 24), Coomera Urban Village, Cnr Foxwell Rd & Finnegan Wy, Coomera	2014/7124	Not Controlled Action	Completed
GCCC Northern Wastewater Strategy and associated Reclaimed Water Scheme - Stage	2001/282	Not Controlled Action	Completed
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed

Title of referral	Reference	Referral Outcome	Assessment Status
Not controlled action			
Mixed use development, Lot 138, 62 Finnegan Way, Coomera, Qld	2015/7488	Not Controlled Action	Completed
Residential development, Big Sky Estate (Stages 5-8), Coomera	2015/7535	Not Controlled Action	Completed
Residential Development Stages 4 & 9-10 Big Sky Estate, Coomera, QLD	2014/7192	Not Controlled Action	Completed
Not controlled action (particular manner)			
Kerkins Levee Rehabilitation Project, Phases 2-8	2004/1435	Not Controlled Action (Particular Manner)	Post-Approval
Referral decision			
Residential Development on Finnegan Way, Coomera, QLD	2012/6685	Referral Decision	Completed

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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Appendix C

Nature Conservation Act 1992

Wildlife Online Search Results



Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: Native
Queensland status: Rare and threatened species
Records: Confirmed
Date: Since 1980
Latitude: -27.8481
Longitude: 153.3257
Distance: 5
Email: josephinegeffen@saundershavill.com
Date submitted: Friday 21 Oct 2022 11:11:11
Date extracted: Friday 21 Oct 2022 11:20:04

The number of records retrieved = 18

Disclaimer

Information presented on this product is distributed by the Queensland Government as an information source only. While every care is taken to ensure the accuracy of this data, the State of Queensland makes no statements, representations or warranties about the accuracy, reliability, completeness or suitability of any information contained in this product.

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Information about your Species lists request is logged for quality assurance, user support and product enhancement purposes only.

The information provided should be appropriately acknowledged as being derived from WildNet database when it is used. As the WildNet Program is still in a process of collating and vetting data, it is possible the information given is not complete. Go to the WildNet database webpage (<https://www.qld.gov.au/environment/plants-animals/species-information/wildnet>) to find out more about WildNet and where to access other WildNet information products approved for publication. Feedback about WildNet species lists should be emailed to wildlife.online@des.qld.gov.au.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Myobatrachidae	<i>Crinia tinnula</i>	wallum froglet		V		2
animals	birds	Accipitridae	<i>Erythroriorchis radiatus</i>	red goshawk		E	V	1
animals	birds	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail		V	V	4
animals	birds	Cacatuidae	<i>Calyptorhynchus lathami</i>	glossy black-cockatoo		V		2
animals	birds	Cacatuidae	<i>Calyptorhynchus lathami lathami</i>	glossy black-cockatoo (eastern)		V	V	18
animals	birds	Scolopacidae	<i>Calidris ferruginea</i>	curlew sandpiper		CR	CE	2
animals	birds	Scolopacidae	<i>Limosa lapponica baueri</i>	Western Alaskan bar-tailed godwit		V	V	13
animals	birds	Scolopacidae	<i>Numenius madagascariensis</i>	eastern curlew		E	CE	24
animals	birds	Strigidae	<i>Ninox strenua</i>	powerful owl		V		16
animals	mammals	Muridae	<i>Xeromys myoides</i>	water mouse		V	V	41
animals	mammals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala		E	E	209
animals	mammals	Pseudocheiridae	<i>Petauroides armillatus</i>	central greater glider		E	E	1
plants	land plants	Lamiaceae	<i>Coleus habrophyllus</i>			E	E	2/2
plants	land plants	Myrtaceae	<i>Rhodamnia rubescens</i>	scrub turpentine		CR	CE	1
plants	land plants	Myrtaceae	<i>Rhodomyrtus psidioides</i>	native guava		CR	CE	1
plants	land plants	Myrtaceae	<i>Syzygium moorei</i>	Durobby		V	V	1/1
plants	land plants	Proteaceae	<i>Macadamia integrifolia</i>	macadamia nut		V	V	2/1
plants	land plants	Sapindaceae	<i>Cupaniopsis newmanii</i>	long-leaved tuckeroo		NT		1

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*.

The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*.

The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).

This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.

This number is output as 999 if it equals or exceeds this value.

Appendix D

Environmental Searches



Environmental searches

54 George Alexander Way,
Coomera, Queensland, 4209
Coomera GA Pty Ltd ATF The Coomera
GA Unit Trust
26 October 2022

11241

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Property attributes		26 October 2022
Address	54 George Alexander Way, Coomera, Queensland, 4209	
Lot/plan(s)	Lot 96 on RP187418	
Area (ha)	3.01	
Local government area	Gold Coast City Council	

1. Federal Matters of National Environmental Significance

A Protected Matters Report was generated from the environment.gov.au website and returned the following results. These matters may occur within a 5 km radius of the site and are protected under the *Environment Protection and Biodiversity Conservation Act 1999*.

World Heritage Properties: None

National Heritage Places: None

Wetlands of International Importance: 1

Great Barrier Reef Marine Park: None

Commonwealth Marine Area: None

Listed Threatened Ecological Communities: 5

Community	Status	RE Mapped
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	No
Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales and South East Queensland ecological community	Endangered	No
Subtropical eucalypt floodplain forest and woodland of New South Wales North Coast and South East Queensland bioregions	Endangered	No
Lowland Rainforest of Subtropical Australia	Critically Endangered	No

• Subtropical and Temperate Coastal Saltmarsh	Vulnerable	No
Listed Threatened Species:	86	
Listed Migratory Species:	65	

2. State Matters

2.1 Nature Conservation Act 1992 and subordinate legislation

Protected Plants Flora Survey Trigger Map Partially within high risk area

2.2 Vegetation Management Act 1999 and subordinate legislation

Regulated Vegetation Management Map and Vegetation Management Supporting Map

Regional Ecosystem	VMA status	Category	Area (ha)
12.11.24	Least Concern	B	1.19
12.11.5	Least Concern	B	0.82
Non-remnant	None	X	1.00
Essential Habitat		<i>Phascolarctos cinereus</i> (Koala)	
Wetland/s		Not present	
Bioregion		Coastal bioregions and sub-regions	

2.3 Koala Habitat Mapping

Koala Priority Area (KPA)	Not within KPA
Koala Habitat Area	Koala Habitat Area (core)

2.4 State Planning Policy Interactive Mapping System (selected environmental matters)

SPP — Biodiversity	MSES – Wildlife habitat (koala habitat areas – core) MSES – Regulated vegetation (essential habitat) MSES – Regulated vegetation (intersecting a watercourse)
	Not within coastal management district
SPP — Water Quality	Does not apply
SPP — Natural Hazards Risk and Resilience	Flood hazard area - Local Government flood mapping area Bushfire prone area

2.5 Development Assessment Mapping System

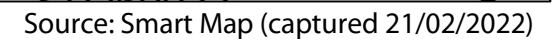
DAMS — Coastal Protection	Does not apply
DAMS — Fish Habitat Areas	

Queensland waterways for waterway barrier works

- 1 – Low

3. Local matters — Gold Coast LGA

Zoning	High density residential Medium density residential
Overlay — Significance Biodiversity Areas	Does not apply
Overlay — Environmental Significance Priority Species	State significant species
Overlay — Significance Vegetation Management	Medium priority vegetation
Overlay — Significance Wetlands and Watercourse	Buffer area

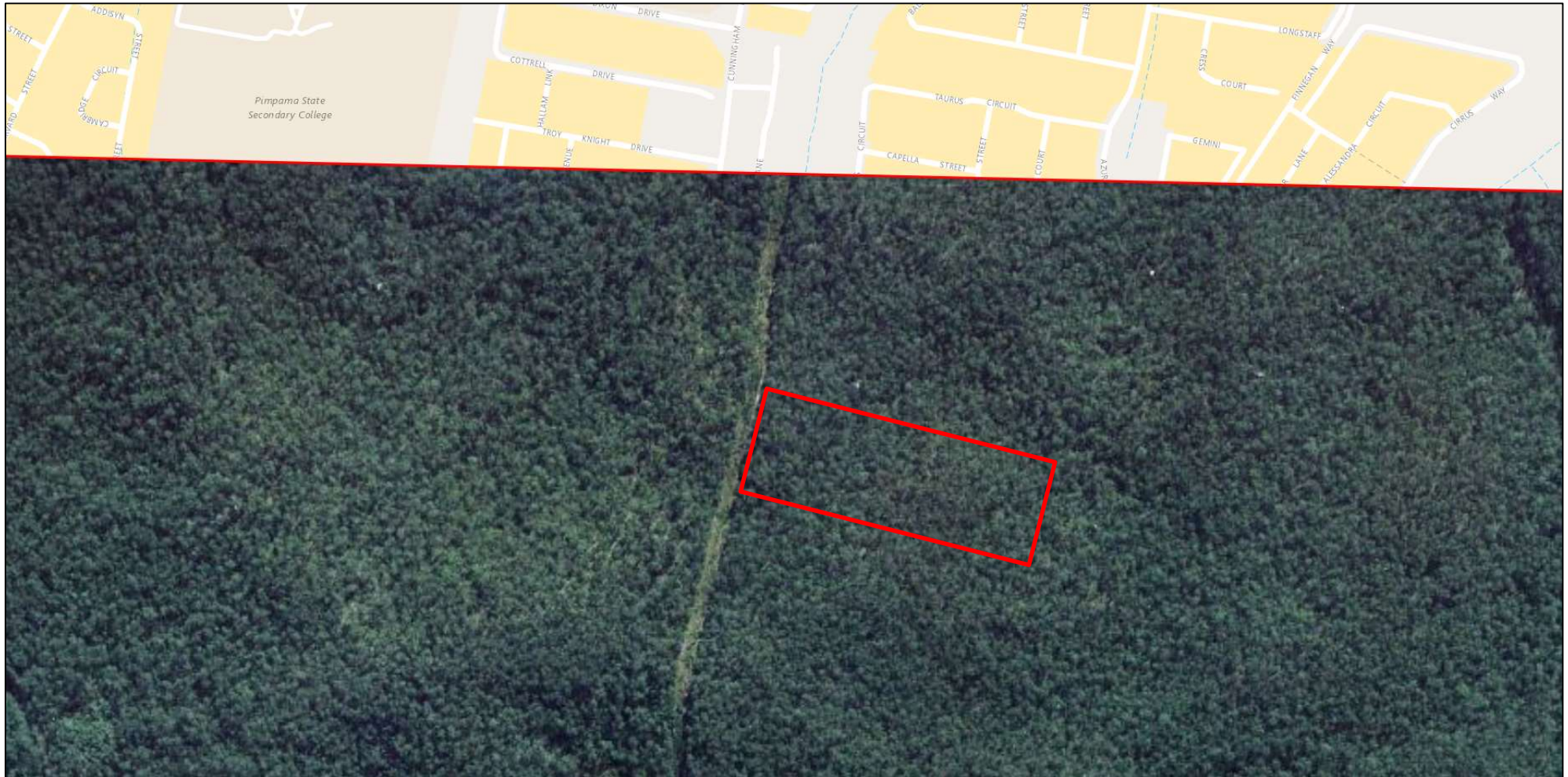


Map 2 — Aerial image (current)



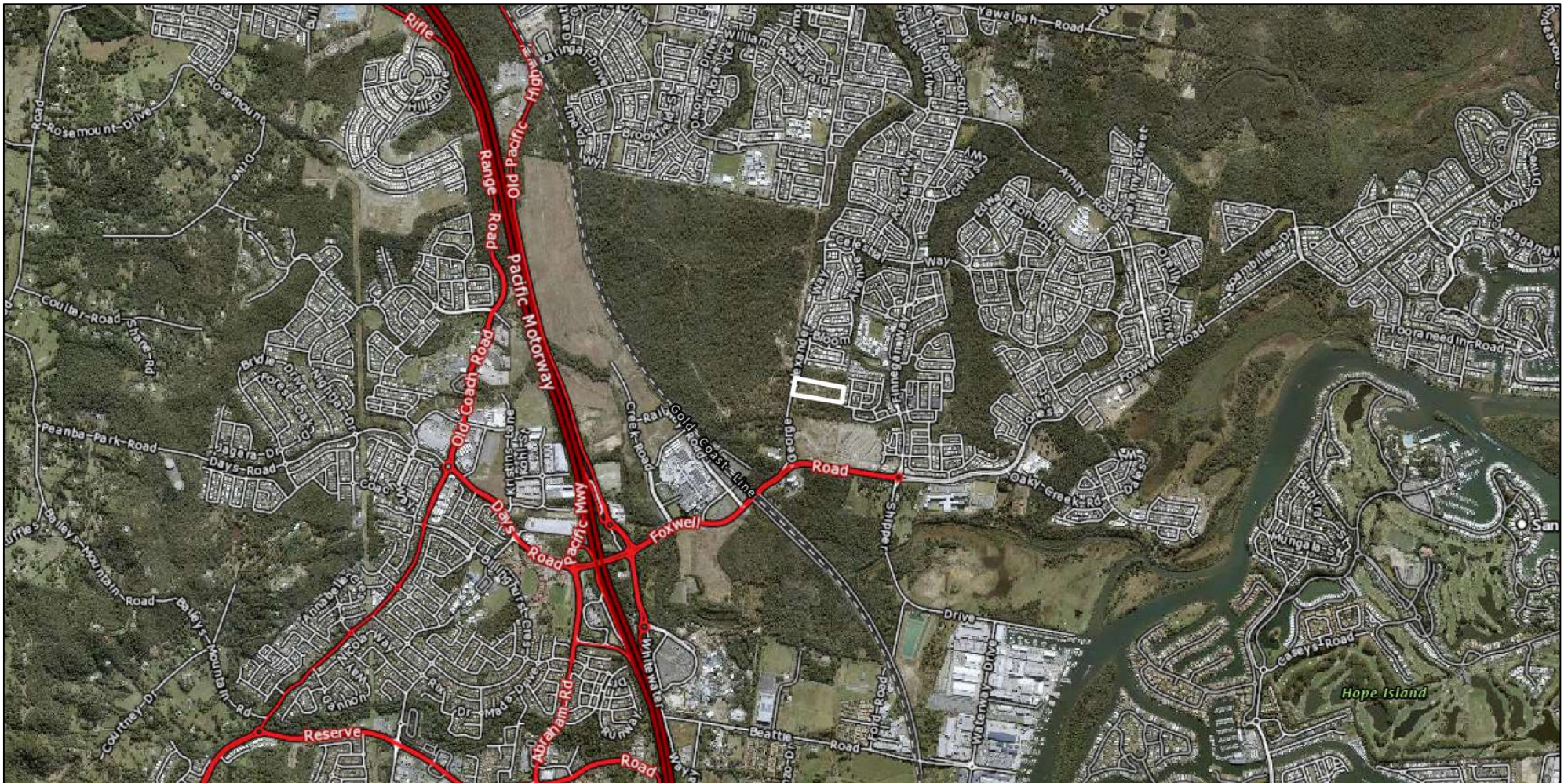
Source: Qld Globe (captured 21/10/2022)

Map 3 — Aerial image (historical)



Source: Qld Globe (captured 08/06/1974)

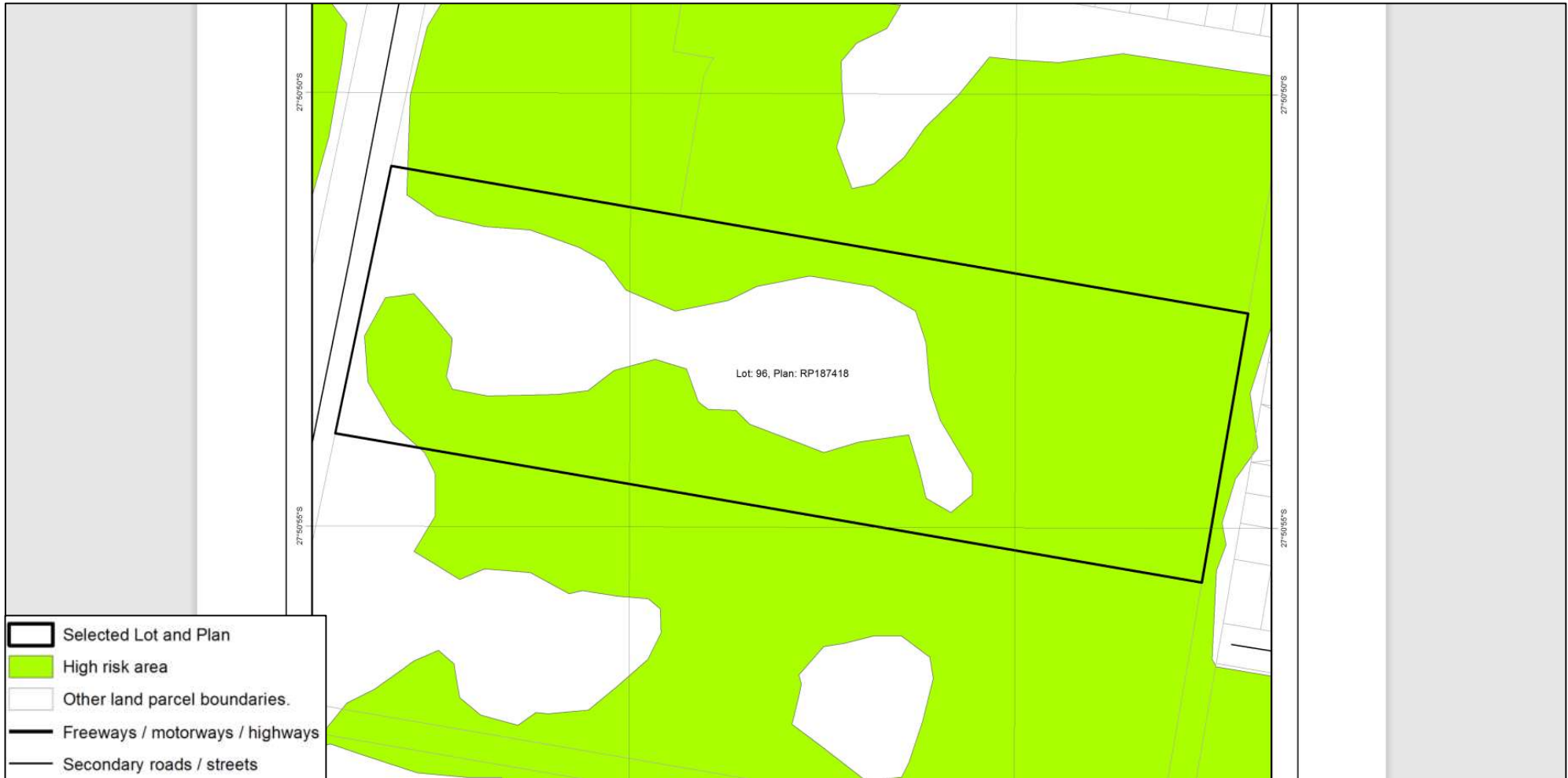
Map 4 — Locality



Source: Qld Globe (captured 21/10/2022)

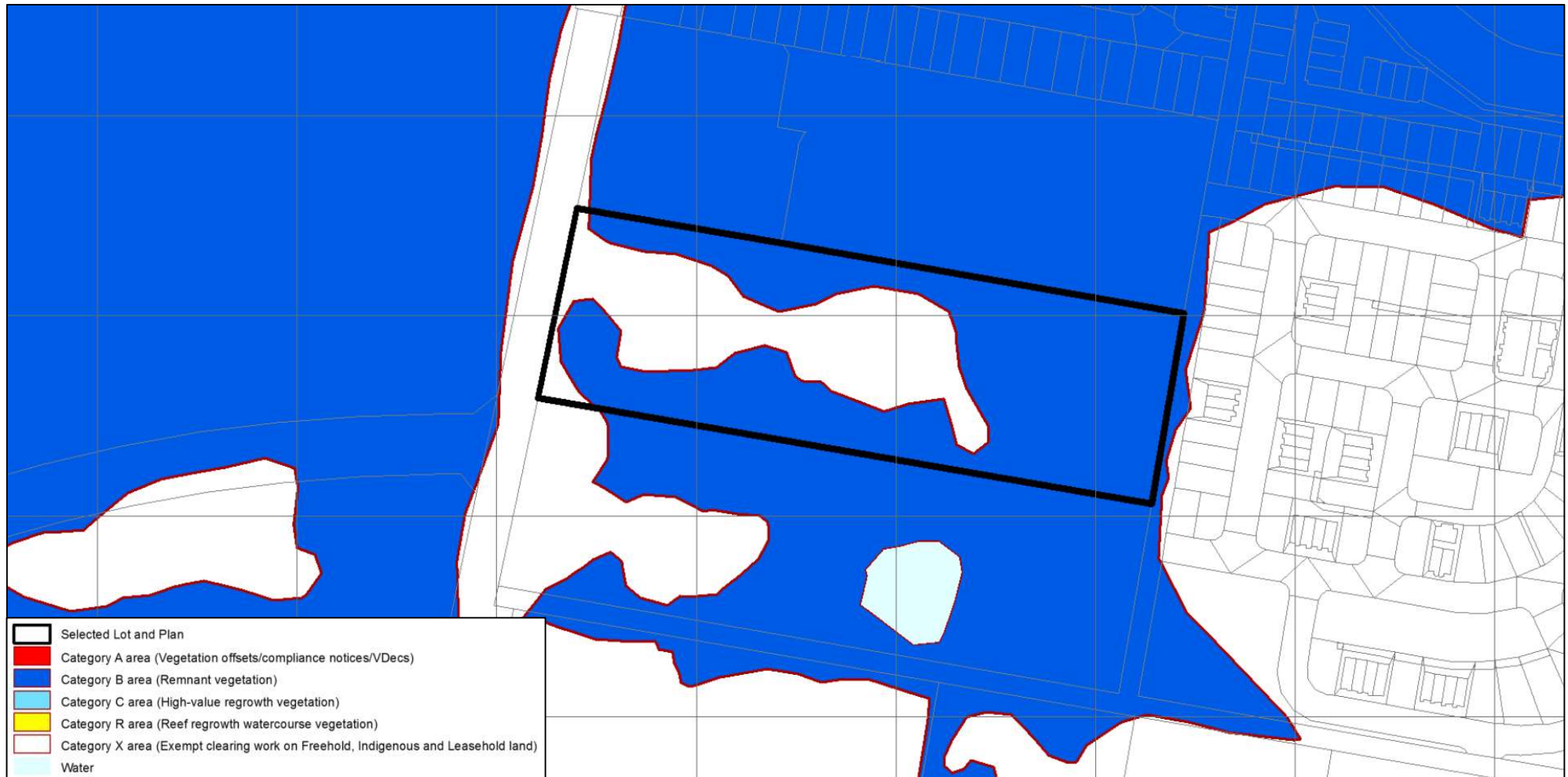
State matters

Map 5 — Protected Plants Flora Survey Trigger Map



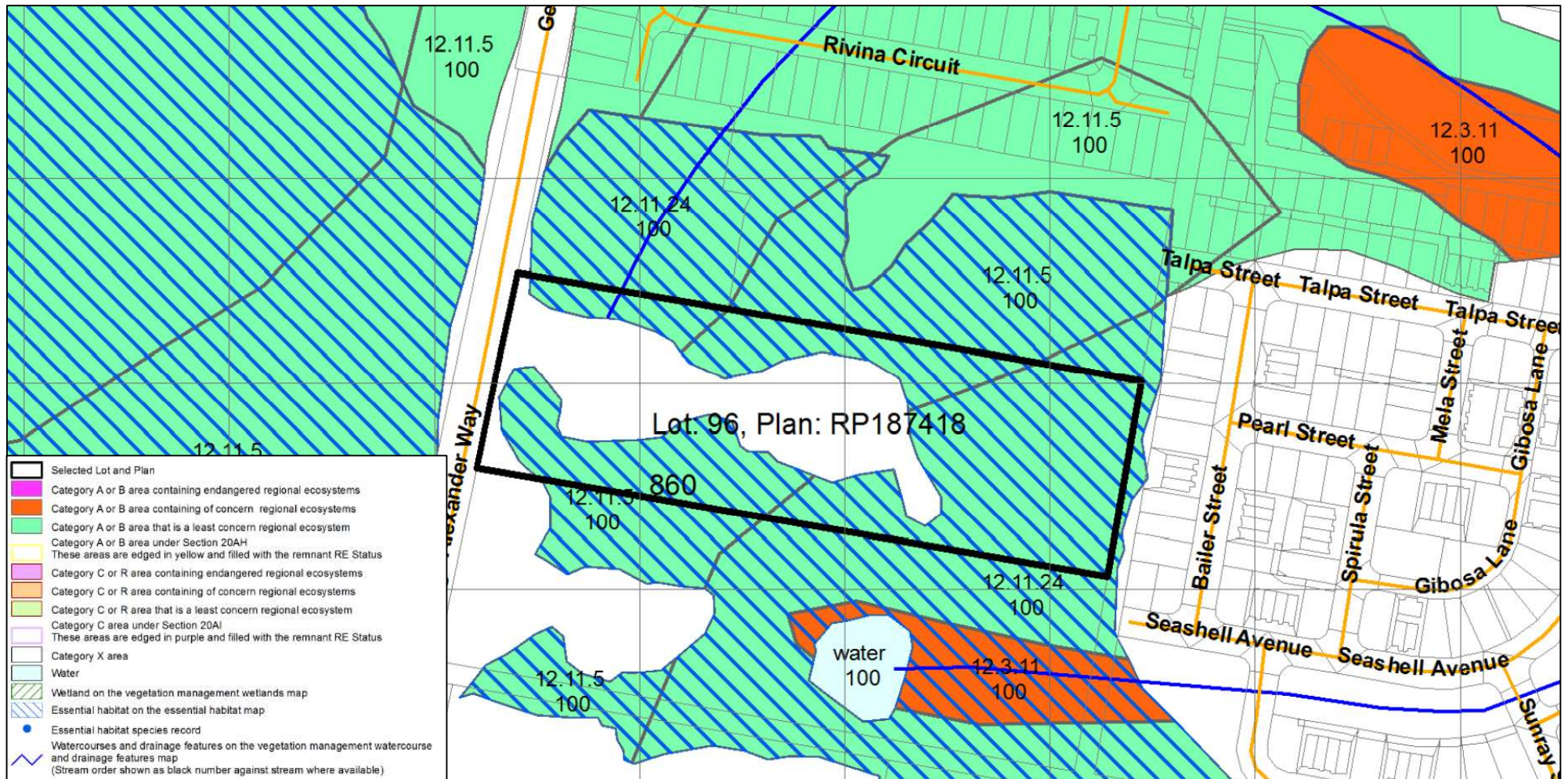
Source: Queensland Government (Department of Environment and Science) 2022 (captured 21/10/2022)

Map 6 — Regulated Vegetation Management Map



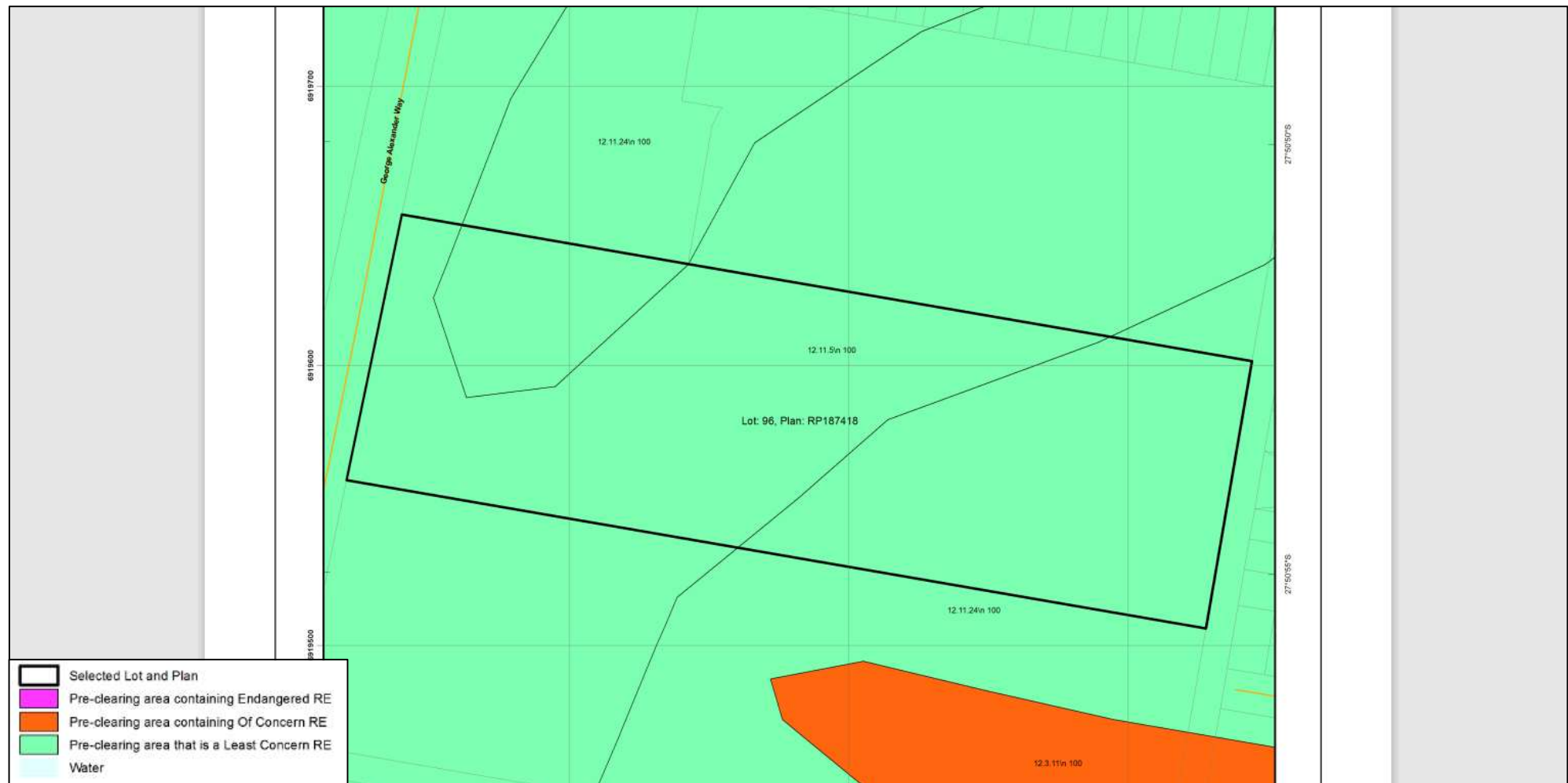
Source: Queensland Government (Department of Environment and Science) 2022 (captured 21/10/2022)

Map 7 — Vegetation Management Supporting Map



Source: Queensland Government (Department of Environment and Science) 2022 (captured 21/10/2022)

Map 8 — Vegetation Management Pre-clear Ecosystem Map



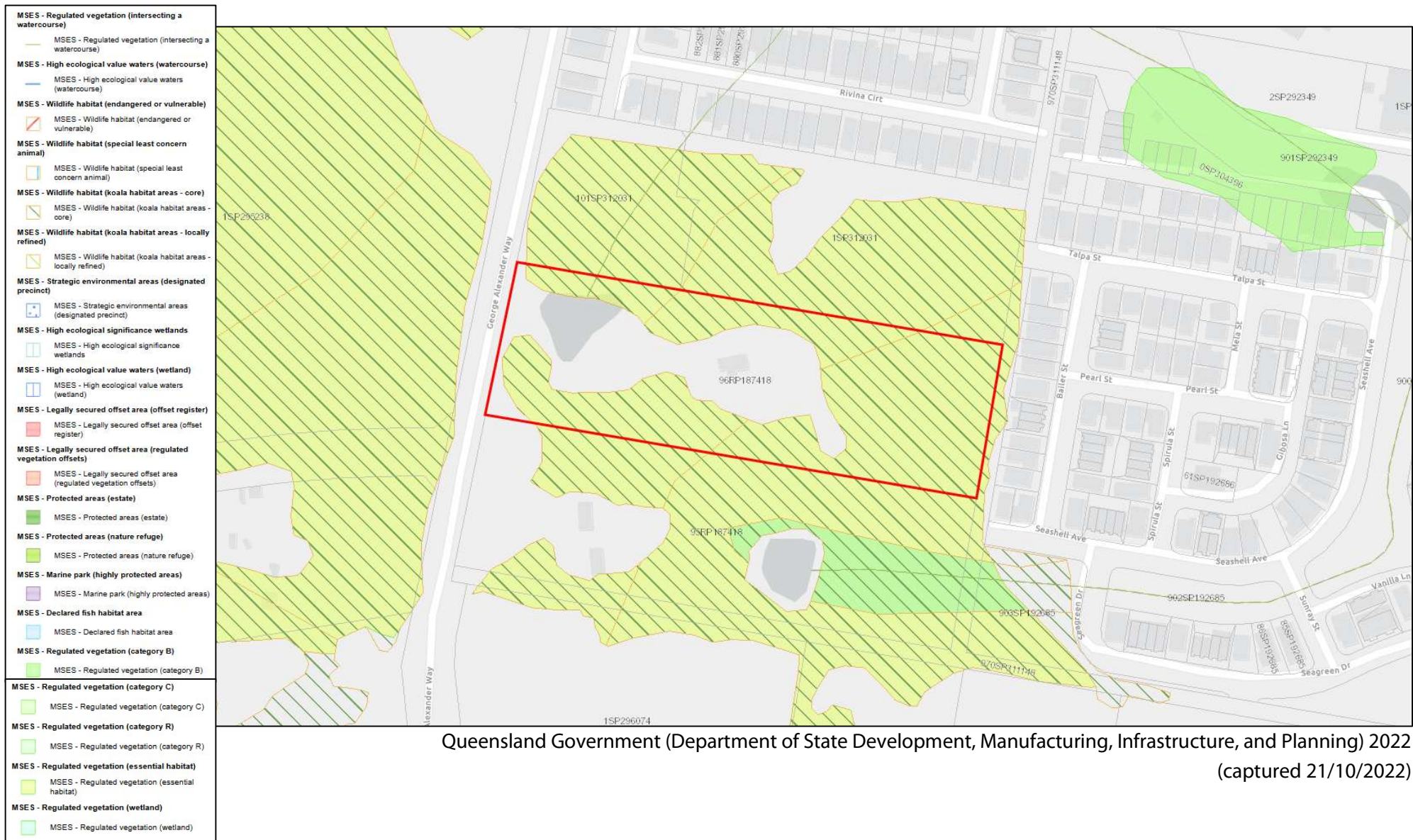
Source: Queensland Government (Department of Environment and Science) 2022 (captured 21/10/2022)

Map 9 — Koala priority area and koala habitat area



Source: Queensland Government (Department of Environment and Science) 2022 (captured 21/10/2022)

Map 10 — SPP — Biodiversity

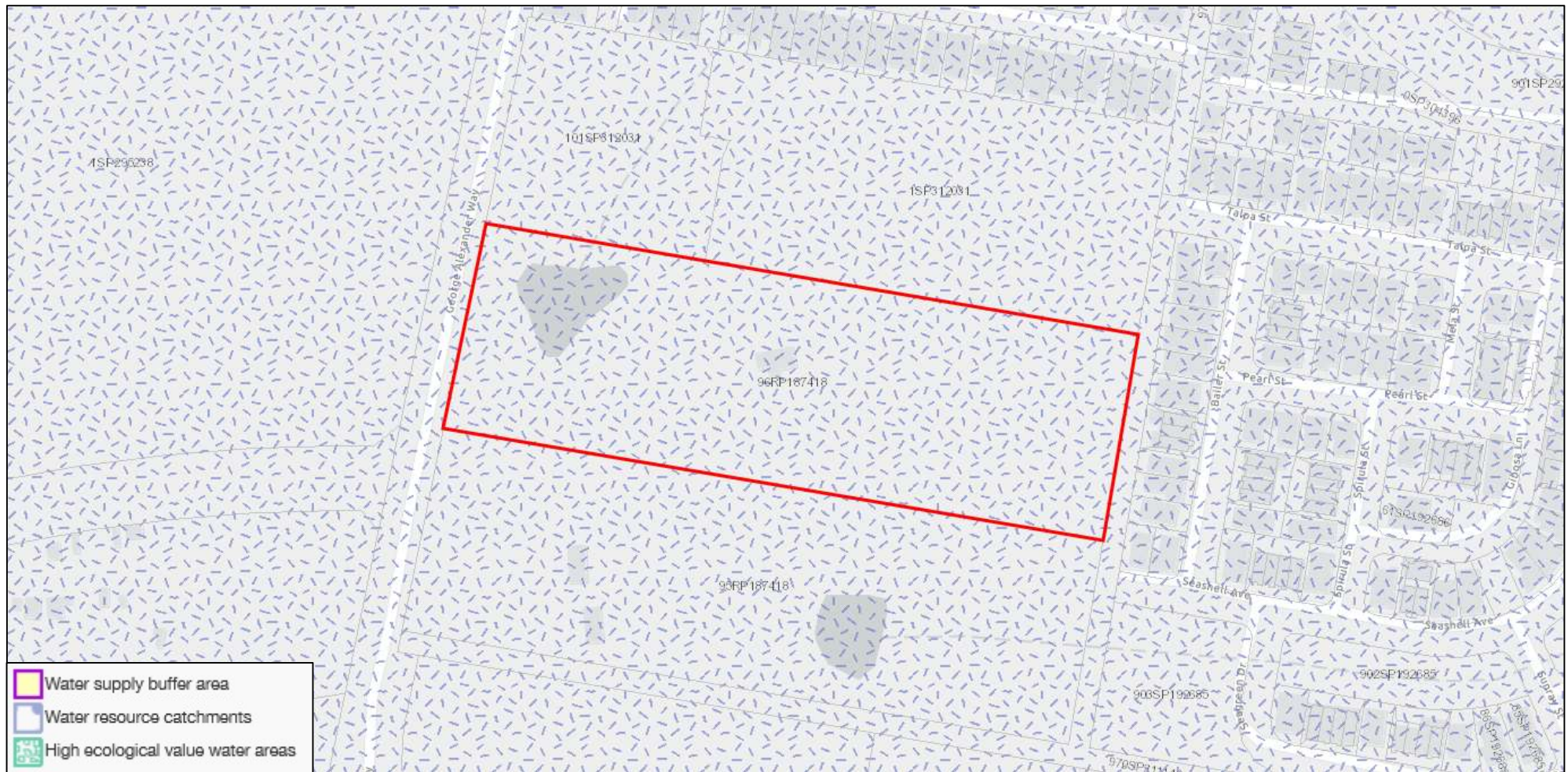


Map 11 – SPP – Coastal Environment



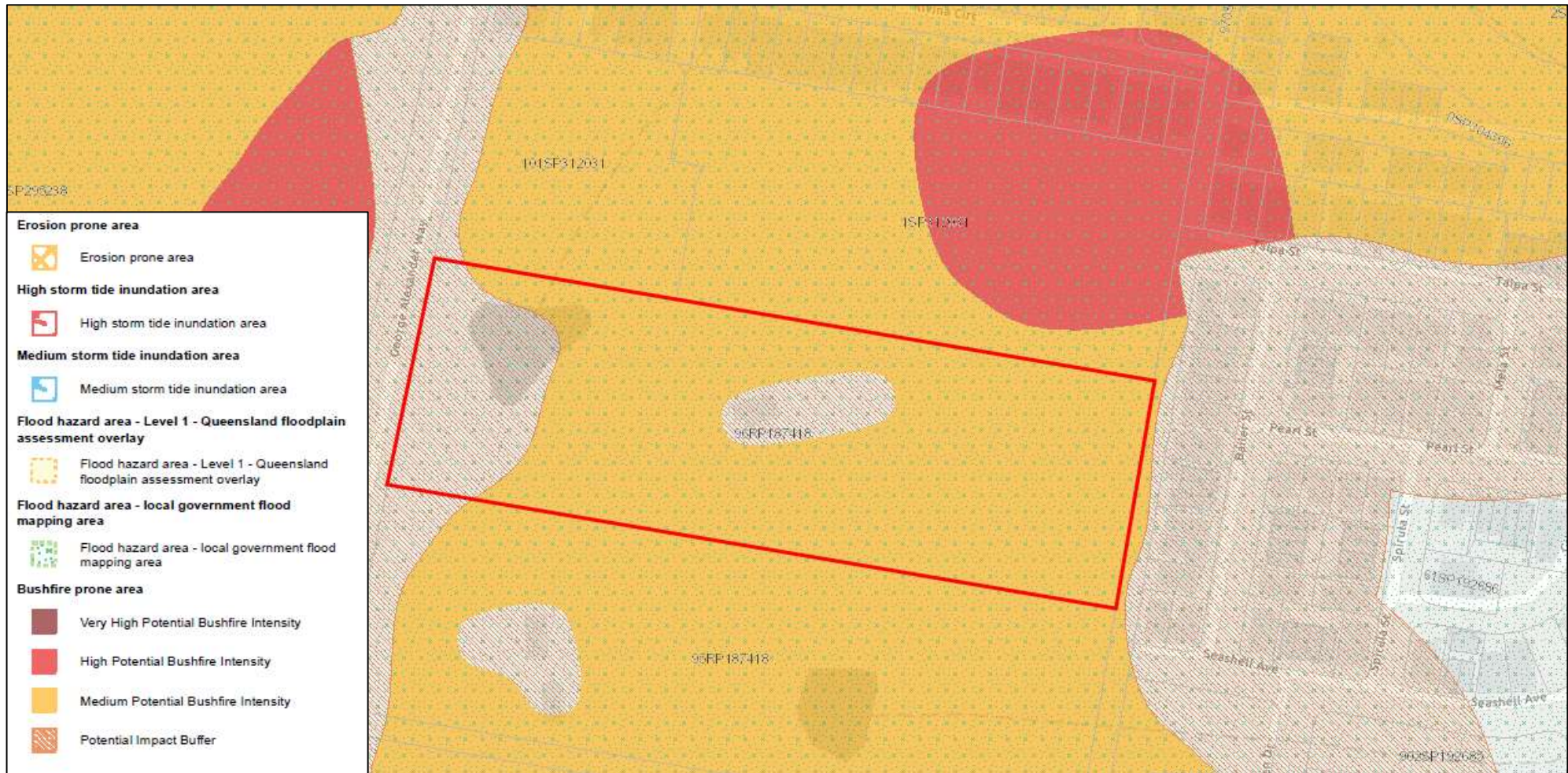
Source: Queensland Government (Department of State Development, Manufacturing, Infrastructure, and Planning) 2022 (captured 21/10/2022)

Map 12 — SPP — Water Quality



Source: Queensland Government (Department of State Development, Manufacturing, Infrastructure, and Planning) 2022 (captured 21/10/2022)

Map 13 — SPP — Natural Hazards Risk and Resilience



Source: Queensland Government (Department of State Development, Manufacturing, Infrastructure, and Planning) 2022 (captured 21/10/2022)

Map 14 — DAMS — Coastal Protection



Source: Queensland Government (Department of State Development, Manufacturing, Infrastructure, and Planning) 2022 (captured 21/10/2022)

Map 15 — DAMS — Fish Habitat Areas



Source: Queensland Government (Department of State Development, Manufacturing, Infrastructure, and Planning) 2022 (captured 21/10/2022)

Map 16 — Water Act 2000 – Watercourse Identification



Source: Qld Globe (captured: 21/10/2022)

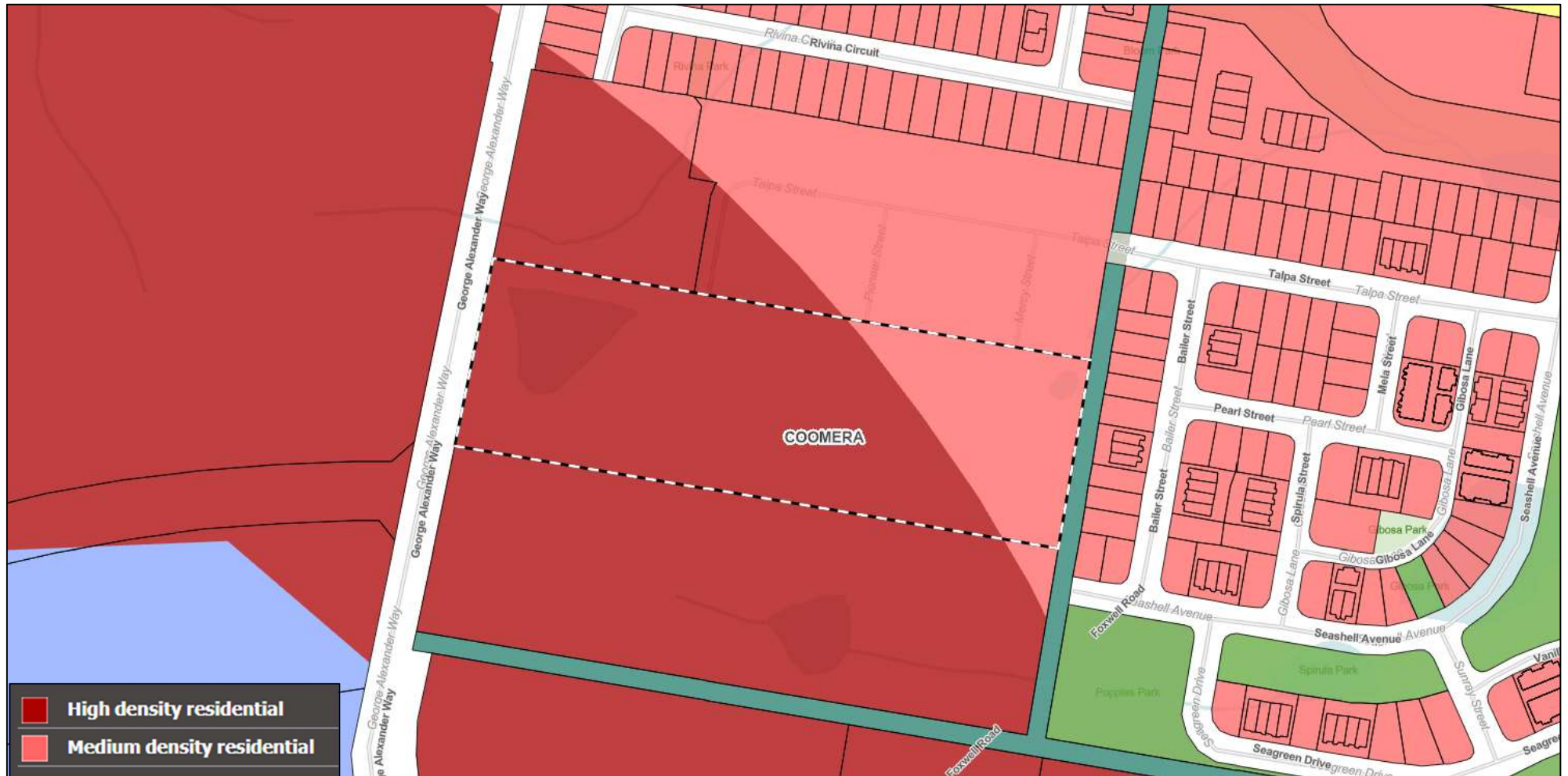
Map 17 — Highest Astronomical Tide



Source: Qld Globe (captured: 21/10/2022)

Local matters — Gold Coast LGA

Map 18 – Zoning



Source: Gold Coast City Plan 2017 (captured 21/10/2022)

Map 19 - Overlay — Environmental Significance Biodiversity Areas



Source: Gold Coast City Plan 2017 (captured 21/10/2022)

Map 20 - Overlay — Environmental Significance Priority Species



Source: Gold Coast City Plan 2017 (captured 21/10/2022)

Map 21 - Overlay — Environmental Significance Vegetation Management



Source: Gold Coast City Plan 2017 (captured 21/10/2022)

Map 22 - Overlay — Environmental Significance Wetlands and Watercourse



Source: Gold Coast City Plan 2017 (captured 21/10/2022)

Appendix E

Response to Environmental Significance
Overlay Code
Gold Coast City Plan V9

Performance outcomes	Acceptable outcomes	Response
Ecological site assessment		
PO1 All matters of environmental significance on and adjacent to the development site are identified and protected. Note - An Ecological Site Assessment prepared in accordance with SC6.7 City Plan policy – Ecological site assessments, is Council’s preferred method for addressing this performance outcome.	AO1 Proposed works do not impact on: a) areas identified on Environmental significance – vegetation management overlay map; b) buffers to wetlands and waterways being: i. 100m from the mapped boundary of a State significant aquatic area, as identified on Environmental significance – wetlands and waterways overlay map; ii. 100m from the outer landward boundary of a State significant wetland, as identified on Environmental significance – wetlands and waterways overlay map; iii. 100m from the outer landward boundary of a Local significant wetland, as identified on Environmental significance – wetlands and waterways overlay map; iv. 60m from the outer bank of a Major Waterway identified on Environmental significance – wetlands and waterways overlay map; or	PO1 - COMPLIES The proposed development requires impact on 1.56 ha of mapped Medium Priority Vegetation under the <i>Environmental significance – vegetation management overlay map</i> and on trees located within the mapped areas on the <i>Environmental significance – priority species overlay map</i>. An Ecological Assessment Report (EAR) has been provided to identify matters of environmental significance on the site. The development has been positioned to avoid impacts to mapped buffer area of the waterway north of the site. The waterway is located in a disturbed and artificial flow path associated with the constructed dam. Observed waterway features were limited to an overland flow path downstream of the dam. Impacts to areas of medium priority vegetation are unavoidable, and recommendations for mitigation measures have been provided in the EAR.

Performance outcomes	Acceptable outcomes	Response
	v. 30m from the outer bank of a Waterway identified on Environmental significance – wetlands and waterways overlay map; and c) individual trees within areas mapped on the environmental significance – priority species overlay map.	
Biodiversity areas		
PO2 Development does not impact on Protected Areas as identified on the Environmental significance–biodiversity areas overlay map.	AO2.1 No acceptable outcome provided.	AO2.1 – NOT APPLICABLE The subject site is not situated in areas mapped as Protected Areas as identified on the <i>Environmental significance – biodiversity areas overlay map</i>.
PO3 Development within the Hinterland to Coast Critical Corridors as identified on the Environmental significance –biodiversity areas overlay map is located and designed to: a) provide corridors of sufficient dimensions and characteristics that will enable adequate movement of fauna through the site; b) protect in situ matters of environmental significance and associated buffers; c) protect in situ, vegetation identified on the Environmental significance – vegetation management overlay map and habitat for native flora and fauna;	AO3.1 No acceptable outcome provided.	AO3.1 – NOT APPLICABLE The subject site is not situated in areas mapped as Hinterland to Coast Critical Corridors as identified on the <i>Environmental significance – biodiversity areas overlay map</i>.

Performance outcomes	Acceptable outcomes	Response
d) link matters of environmental significance, existing corridors and/or conservation estate/reserves on adjacent properties; e) maintain and improve upon the regional connectivity of the Hinterland to Coast Critical Corridors; and f) allow for the rehabilitation of disturbed, cleared or modified areas that form part of the Hinterland to Coast Critical Corridors. Note: Recommendations provided in an ecological site assessment (prepared in accordance with SC6.7 City Plan policy – Ecological site assessments) are Council's preferred method for determining corridor dimensions.		
P04 Development within Hinterland Core Habitat Systems, Coastal Wetlands and Islands Core Habitat Systems and Substantial Remnant Areas as identified on the Environmental significance – biodiversity areas overlay map is located and designed to: a) protect in situ matters of environmental significance and associated buffers; b) protect in situ vegetation identified on the Environmental significance – vegetation management overlay map and habitat for native flora and fauna; and	AO4 No acceptable outcome provided.	P04 – NOT APPLICABLE The assessment area is not identified as 'Hinterland Core Habitat Systems', 'Coastal Wetlands' and 'Islands Core Habitat Systems' as identified on the <i>Environmental significance–biodiversity areas</i> overlay map.

Performance outcomes	Acceptable outcomes	Response
c) allow for the rehabilitation of disturbed, cleared or modified areas.		
Wetland and waterway		
P05 Buffers are provided to wetlands and waterways identified on the Environmental significance – wetlands and waterways overlay map to ensure the: a) protection of matters of environmental significance mapped onsite or identified through an ecological site assessment; b) unimpeded movement of fauna along the waterway; c) water quality is maintained; d) bank stability; and e) protection of property and infrastructure. Note: The buffer width for wetlands is measured from the outer, landward boundary of the mapped wetland, as shown on Environmental significance – wetland and waterways overlay map. Note: Recommendations provided in an ecological site assessment (prepared in accordance with SC6.7 City Plan policy – Ecological site assessments) is Council’s preferred method for determining alternative buffer widths. Note: Artificial waterways are to be addressed through the Coastal erosion hazard overlay code and map. Where a	A05.1 Buffers at least 100m wide are provided between the development and the mapped boundary of a state significant aquatic area, as identified on environmental significance – wetlands and waterways overlay map. A05.2 Buffers at least 100m wide are provided between the development and the outer landward boundary of a state significant wetland, as identified on environmental significance – wetlands and waterways overlay map. A05.3 Buffers at least 100m wide are provided between the development and the outer landward boundary of a local significant wetland as identified on the environmental significance – wetlands and waterways overlay map. A05.4 Buffers at least 60m wide are provided between the development and the outer bank of a Major Waterway as identified on the Environmental significance – wetlands and waterways overlay map. A05.5	A05.1 – NOT APPLICABLE The subject site is not situated in or near areas mapped as state significant aquatic areas as identified on the <i>Environmental significance – wetlands and waterways overlay map</i>. A05.2 – NOT APPLICABLE The subject site is not situated in or near areas mapped as state significant wetland as identified on the <i>Environmental significance – wetlands and waterways overlay map</i>. A05.3 – NOT APPLICABLE The subject site is not situated in or near areas mapped as local significant wetland as identified on the <i>Environmental significance – wetlands and waterways overlay map</i>. A05.4 – NOT APPLICABLE A major waterway is not mapped within the assessment area. A05.5 - COMPLIES

Performance outcomes	Acceptable outcomes	Response
waterbody contains both natural and artificial banks, the natural banks are to be assessed in accordance with this performance outcome.	Buffers at least 30m wide are provided between the development and the outer bank of a waterway as identified on the Environmental significance – wetlands and waterways overlay map .	Development has been positioned to avoid impacts to mapped buffer area of the waterway north of the site and will be located greater than 30 m away from the outer bank of the waterway. It should be noted that the mapped waterway is located in a disturbed and artificial flow path associated with the constructed dam. Observed waterway features were limited to an overland flow path downstream of the dam and as a result are considered unlikely to require a 30 metre buffer.
Vegetation management		
PO6 Regulated vegetation is protected in situ when it is: a) identified on the Environmental significance – vegetation management overlay map; and b) within biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO6 Development does not impact on regulated vegetation.	PO6 – NOT APPLICABLE The subject site is not situated in or near areas mapped as regulated vegetation as identified on the <i>Environmental significance – vegetation management overlay map</i> nor are there any biodiversity areas as identified on the <i>Environmental significance – biodiversity areas overlay map</i> located on-site.
PO7 Development is designed to maintain regulated vegetation and minimise disturbance when it is: a) identified on the Environmental significance – vegetation management overlay map; and b) outside of biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO7 Development avoids impacts on regulated vegetation.	PO7 – NOT APPLICABLE The subject site is not situated in or near areas mapped as regulated vegetation as identified on the <i>Environmental significance – vegetation management overlay map</i> nor are there any biodiversity areas as identified on the <i>Environmental significance – biodiversity areas overlay map</i> located onsite.

Performance outcomes	Acceptable outcomes	Response
PO8 High priority vegetation as identified on the Environmental significance – vegetation management overlay map is protected in situ.	AO8 No acceptable outcome provided.	PO8 – NOT APPLICABLE The subject site is not situated in or near areas mapped as high priority vegetation as identified on the <i>Environmental significance–vegetation management overlay map</i> .
PO9 Medium and general priority vegetation as identified on the Environmental significance – vegetation management overlay map within biodiversity areas as identified on the Environmental significance –biodiversity areas overlay map is protected in situ.	AO9 No acceptable outcome provided.	PO9 – NOT APPLICABLE The site is not mapped as occurring within biodiversity areas as identified on the <i>Environmental significance – biodiversity areas overlay map</i> .
PO10 Vegetation is protected when it is: a) identified as medium priority vegetation on the Environmental significance – vegetation management overlay map ; and b) located outside the biodiversity areas identified on the Environmental significance – biodiversity areas overlay map .	AO10 Vegetation is not damaged when it is: a) identified as medium priority vegetation on the <i>Environmental significance – vegetation management overlay map</i> ; and b) located outside the <i>Environmental significance –biodiversity areas overlay map</i> . OR Where all attempts have been made to avoid and minimise damage to vegetation as stated above, any significant residual impact is offset consistent with the <i>Environmental Offsets Act 2014</i> , at a ratio of 3:1 (area) in accordance with SC6.9 City Plan policy – Environmental offsets .	P10 – COMPLIES Vegetation mapped as medium priority vegetation as identified on the <i>Environmental significance – vegetation management overlay map</i> is required to be impacted by the proposed development. Impacts to Gold Coast City Plan medium priority vegetation mapped in the <i>Environmental Significance Vegetation Management overlay</i> are analogous to the impacts on state KHA which are to be offset under the <i>Queensland Environmental Offsets Policy</i> , Therefore, to avoid duplication of offsets, and environmental offset in accordance with <i>SC6.9 City Plan policy – Environmental offsets</i> is not required for the proposed impacts to medium priority vegetation.

Performance outcomes	Acceptable outcomes	Response
	OR Damage to medium priority vegetation identified on the Environmental significance – vegetation management overlay map and located outside the biodiversity areas identified on the Environmental significance – biodiversity areas overlay map is for committed development.	
PO11 Disturbance to vegetation is minimised when it is: a) identified as General priority vegetation on the Environmental significance – vegetation management overlay map ; and b) located outside the Environmental significance – biodiversity areas overlay map .	AO11 Development avoids impacts on general priority vegetation. Any damage is minimised to the greatest extent possible.	PO11 – NOT APPLICABLE The subject site is not situated in areas mapped as general priority vegetation as identified on the <i>Environmental significance – vegetation management overlay map</i> .
PO12 Buffers are provided that protect the long term viability of high priority and regulated vegetation located on or adjacent to the site.	AO12 Buffers at least 30m wide are provided between the development and any retained vegetation identified as high priority or regulated vegetation on the Environmental significance – vegetation management overlay map on or adjacent to the site.	AO12 - COMPLIES The subject site is not situated on areas mapped as high priority or regulated vegetation as identified on the <i>Environmental significance - vegetation management overlay map</i> . Regulated vegetation mapped to the south of the subject site is approximately 35 m from the proposed development therefore a sufficient buffer is supplied.
Priority species		
PO13 Assessable koala feed and shelter trees are protected in situ when they are located:	AO13 Development does not impact on assessable koala feed and shelter trees.	PO13 – NOT APPLICABLE The subject site is located over areas mapped as Koala habitat areas as identified on the <i>Environmental significance – priority species overlay map</i> . However, this

Performance outcomes	Acceptable outcomes	Response
a) in koala habitat areas as identified on the Environmental significance – priority species overlay map; and b) within biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.		area is not identified within a biodiversity area as identified on the <i>Environmental significance – biodiversity areas</i> overlay map.
PO14 Assessable koala feed and shelter trees are protected when they are: a) in koala habitat areas as identified on the Environmental significance – priority species overlay map; and b) outside biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO14 Development avoids impacts on assessable koala feed and shelter trees. Any damage is minimised to the greatest extent possible.	PO14 – COMPLIES Development layout has been designed to minimise impacts to koala feed and shelter trees within koala habitat areas as identified by <i>Environment significance – priority species</i> to the greatest extent possible.
PO15 Site design provides safe koala movement opportunities by incorporating measures to maintain connectivity between areas of koala habitat on and adjacent to the site. Note : DEHP's Koala-Sensitive Design Guideline should be consulted for suitable measures to provide for safe koala movement.	AO15 No acceptable outcome provided.	PO15 - COMPLIES The site is located within a rapidly urbanising landscape associated with the Coomera urban centre. The planning intent for the site and adjoining lots to the south is for medium and high-density residential areas. It is not considered viable or favourable for the Koala to retain or promote Koala movement opportunities on-site, as the landscape will be subject to increasing vehicle traffic and increased population density over the coming years, exposing the Koala to an increased level of threats. In addition, the Coomera Woods project is located to the west of the site which will clear a large area of mapped

Performance outcomes	Acceptable outcomes	Response
		Koala habitat. As such, future Koala movement opportunities are anticipated to diminish as approved development projects are completed.
P016 During the clearing and construction phases, measures are incorporated to protect koalas from death or injury.	AO16 Threats to koalas as a result of clearing and construction activities are mitigated by: a) ensuring no tree in which a koala is present or a tree with a crown overlapping a tree containing a koala is cleared; b) undertaking clearing of vegetation in stages, and ensuring: i. no more than 1 ha is cleared per day for sites less than 6 ha in size; ii. no more than 2 ha is cleared per day for sites greater than 6 ha in size; iii. that between each stage there is at least 12 hours where no clearing occurs; and iv. koala habitat is always linked to allow koalas to move out of the site; c) use of qualified koala spotters; d) prohibition of domestic dogs and security dogs on site; and e) use of koala safety fencing.	AO16 - COMPLIES A VCFMP will be implemented to manage vegetation clearing and mitigate impacts on fauna, including the Koala, for works on the site. A qualified Koala spotter will be located on-site prior to and during all clearing works. In addition, a Koala Management Plan has also been provided in the accompanying State Code 25 Response Report.

Performance outcomes	Acceptable outcomes	Response
PO17 State significant species, and their habitat, are protected in situ when it is: a) identified on the Environmental significance – priority species overlay map, or through an ecological site assessment; and b) within biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO17 Development does not impact on State significant species, and their habitat.	PO17 – NOT APPLICABLE The subject site is situated on areas mapped as state significant species as identified on the <i>Environmental significance – priority species</i> overlay map however is not identified within a biodiversity area as identified on the <i>Environmental significance – biodiversity areas</i> overlay map.
PO18 Development protects state significant species, and their habitat or is designed to minimise and mitigate impacts on habitat values when it is: a) identified on the Environmental significance – priority species overlay map; and b) outside of biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO18.1 Development avoids impacts on state significant species, and their habitat. AO18.2 Where development impacts on state significant species and their habitat, the following occurs: flora species are propagated and used in rehabilitation and landscaping onsite; and fauna species are safely relocated by a qualified fauna spotter catcher.	PO18 - COMPLIES The site is mapped with state significant species identified on the <i>Environmental significance – priority species</i> overlay map. A VCFMP will be implemented to manage vegetation clearing and mitigate impacts on fauna, including the Koala, for works on the site. A qualified Koala spotter will be located on-site prior to and during all clearing works. In addition, a Koala Management Plan has also been provided in the accompanying State Code 25 Response Report.
PO19 Local significant species, and their habitat, are protected in situ when it is: a) identified on the Environmental significance – priority species overlay map, or through an ecological site assessment; and	AO19 Development does not impact on local significant species, and their habitat.	PO19 – NOT APPLICABLE The subject site is not situated on areas mapped as local significant species as identified on the <i>Environmental significance – priority species</i> overlay map and is not identified within a biodiversity area as identified on the <i>Environmental significance – biodiversity areas</i> overlay map.

Performance outcomes	Acceptable outcomes	Response
b) within biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.		
PO20 Development protects local significant species, and their habitat or is designed to minimise and mitigate impacts on habitat values when it is: a) identified on the Environmental significance – priority species overlay map; and b) outside of biodiversity areas as identified on the Environmental significance – biodiversity areas overlay map.	AO20.1 Development avoids impacts on local significant species, and their habitat. AO20.2 Where development impacts on local significant species and their habitat, the following occurs: a) flora species are propagated and used in rehabilitation and landscaping onsite; and b) fauna species are safely relocated by a qualified fauna spotter catcher.	PO20 – NOT APPLICABLE The subject site is not situated on areas mapped as local significant species as identified on the <i>Environmental significance – priority species overlay map</i> and is not identified within a biodiversity area as identified on the <i>Environmental significance – biodiversity areas overlay map</i>.
Fauna management		
PO21 Development design and location provides for the safe movement of native fauna through the site.	AO21 Where infrastructure crosses native fauna movement paths, the design of new development incorporates fauna friendly movement solutions. Note: Fauna friendly movement solutions developed in accordance with the Queensland Government Fauna Sensitive Road Design Manual Volume 2: Preferred Practices; and the QLD Government Koala-Sensitive Design Guidelines is Council's preferred method for addressing this outcome.	PO21 - COMPLIES The proposed development will be located within the eastern portion of the site with some impacts occurring in the western portion of the site to meet the civil works requirements for the project. Due to the small size of the site and as the majority of the site is required to be impacted, it is not considered viable to include dedicated wildlife movement solutions within the site. Fauna movement opportunities are considered to be relatively limited in the surrounding landscape with a development located to the north and an established residential community to the east. George Alexander

Performance outcomes	Acceptable outcomes	Response
PO22 Where fauna habitat is proposed to be damaged, management strategies must be implemented to ensure: a) the native fauna is safely relocated to an area of similar habitat; b) the sequence of habitat disturbance ensures that fauna is not isolated from adjoining areas of habitat; c) fauna relocation occurs immediately prior to habitat disturbance; d) accredited and experienced spotter catchers, licensed by the Queensland Parks and Wildlife Service, are to be present on the site to direct and undertake the removal and relocation of fauna; and e) where possible, damaged habitat and nesting sites are rehabilitated outside of development areas. Note: A Fauna Management Plan prepared by a suitably qualified person and in accordance with SC6.8	AO22 No acceptable outcome provided.	Way bounds the site to the west representing a hazard to safe wildlife movement. A VCFMP will be produced to manage vegetation clearing and mitigate impacts on fauna, including the Koala, for works within and adjacent to the site.
		PO22 - COMPLIES A VCFMP will be implemented to manage vegetation clearing and mitigate impacts on fauna, including the Koala, for works on the site. Qualified Koala spotters will be utilised prior to and during clearing works. In addition, a Koala Management Plan has also been provided in the accompanying State Code 25 Response Report.

Performance outcomes	Acceptable outcomes	Response
City Plan policy – Environmental management plans is Council's preferred method for addressing this outcome.		
Tenure, ownership and management arrangements		
PO23 Matters of environmental significance and associated buffers, mapped areas as identified on the Environmental significance – vegetation management overlay map proposed for retention and areas requiring rehabilitation are suitably protected in perpetuity and will: a) enable necessary fire management in accordance with an approved fire management plan and any adopted bushfire management plan; b) allow unimpeded movement of native fauna through matters of environmental significance and associated buffers; c) enable maintenance access and regular management; d) enable auditing and reporting of maintenance and management activities; e) provide for public access along major waterways, where such access is consistent with the ecological functions; f) allow for linkages and buffers to adjacent areas of ecological significance; and	AO23 Matters of environmental significance and associated buffers, mapped areas as identified on the Environmental significance – vegetation management overlay map proposed for retention and areas requiring rehabilitation are transferred to Council ownership as Public Open Space. OR Where not required for public access, matters of environmental significance and associated buffers, and mapped areas as identified on the Environmental significance – vegetation management overlay map proposed for retention and areas requiring rehabilitation are retained in private ownership and protected under a statutory covenant (under the <i>Land Title Act 1994</i>). Note: Where the area is adjacent to existing public open space, or is a buffer to a major waterway, Council's preference is for the land to be dedicated as Public Open Space.	PO23 – NOT APPLICABLE No areas on-site are proposed to be rehabilitated as part of the development proposal.

Performance outcomes	Acceptable outcomes	Response
g) allow for a coordinated approach to the management of adjacent areas of conservation estate.		
PO24 An Open Space Management Plan prepared in accordance with SC6.12 City Plan policy – Landscape work is prepared for areas to be dedicated to Council as Public Open Space.	AO24 No acceptable outcome provided.	PO24 – NOT APPLICABLE No areas on-site are proposed to be dedicated to Council as Public Open Space.
PO25 A Covenant Management Plan is prepared for areas to be protected under a statutory covenant. The management plan must include the following details: a) rehabilitation area and strategy of works; b) weed eradication and control requirements; c) how the covenant area will be maintained and managed in perpetuity; d) feral and domestic animal exclusion requirements; and e) required maintenance access. Note: A Covenant Management Plan is prepared by a suitably qualified person and in accordance with SC6.8 City Plan policy – Environmental management plans is Council's preferred method for addressing this performance outcome.	AO25 No acceptable outcome provided.	PO25 – NOT APPLICABLE Covenants are not proposed for any privately held areas/lots.
Rehabilitation		

Performance outcomes	Acceptable outcomes	Response
PO26 Disturbed, cleared or modified areas are rehabilitated where they form part of: a) an ecological corridor; or b) matters of environmental significance and associated buffers; or c) areas identified within an Ecological Site Assessment as requiring rehabilitation. Note : A Rehabilitation Management Plan prepared in accordance with the South East Queensland Ecological Restoration Framework and SC6.8 City Plan policy – Environmental management plans is Council's preferred method for addressing this outcome.	AO26 No acceptable outcome provided.	PO26 – COMPLIES No areas on-site are proposed to be rehabilitated as part of the development design.

Appendix F

Tree Schedule

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
1	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	620		620	195	28.0	16.0	7.4	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
2	<i>Corymbia intermedia</i>	Pink Bloodwood	330		330	104	6.0	3.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
3	<i>Acacia concurrens</i>	Black Wattle	110	90	142	45	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
4	<i>Eucalyptus microcorys</i>	Tallowwood	340	340	481	151	16.0	7.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
5	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	830		830	261	27.0	14.0	10.0	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
6	<i>Corymbia intermedia</i>	Pink Bloodwood	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
7	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	220		220	69	15.0	6.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
8	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	170		170	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
9	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	800		800	251	28.0	16.0	9.6	3.0	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-	
10	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
11	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
12	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
13	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
14	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
15	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
16	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
17	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
18	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
19	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	6.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
20	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
21	<i>Schefflera actinophylla</i>	Umbrella Tree	150	90	175	55	7.0	3.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
22	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Introduced	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
23	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
24	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
25	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
26	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
27	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
28	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
29	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
30	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
31	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
32	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
33	<i>Eucalyptus microcorys</i>	Tallowwood	270		270	85	14.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
34	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	18.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
35	<i>Corymbia citriodora</i>	Spotted Gum	520		520	163	22.0	12.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
36	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	20.0	10.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
37	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
38	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	14.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
39	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	5.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
40	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
41	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical										

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
50	<i>Acacia concurrens</i>	Black Wattle	130		130	41	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
51	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	340		340	107	21.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
52	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
53	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
54	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	380		380	119	21.0	8.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
55	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
56	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	23.0	11.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
57	<i>Corymbia intermedia</i>	Pink Bloodwood	300		300	94	16.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
58	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
59	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
60	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	630		630	198	22.0	12.0	7.6	2.7	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
61	<i>Acacia concurrens</i>	Black Wattle	250		250	79	6.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
62	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	8.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
63	<i>Corymbia citriodora</i>	Spotted Gum	260		260	82	18.0	7.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
64	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
65	<i>Corymbia citriodora</i>	Spotted Gum	300	260	397	125	20.0	8.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
66	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	390		390	123	23.0	11.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
67	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
68	<i>Acacia disparrima</i>	Hickory Wattle	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
69	<i>Acacia disparrima</i>	Hickory Wattle	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
70	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	270		270	85	12.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
71	<i>Corymbia citriodora</i>	Spotted Gum	680		680	214	24.0	14.0	8.2	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
72	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
73	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
74	<i>Acacia concurrens</i>	Black Wattle	170		170	53	6.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
75	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
76	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	370		370	116	20.0	10.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
77	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
78	<i>Acacia concurrens</i>	Black Wattle	120	110	163	51	4.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
79	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
80	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
81	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	21.0	10.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
82	<i>Acacia disparrima</i>	Hickory Wattle	140		140	44	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
83	<i>Corymbia citriodora</i>	Spotted Gum	560		560	176	23.0	10.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-
84	<i>Corymbia citriodora</i>	Spotted Gum	280		280	88	17.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
85	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	510		510	160	25.0	12.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
86	DEAD/STAG		450		450	141	24.0	12.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Dead Tree (stag)	-
87	<i>Acacia disparrima</i>	Hickory Wattle	140	90	166	52	5.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
88	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
89	<i>Corymbia citriodora</i>	Spotted Gum	370		370	116	18.0	7.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
90	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	600		600	188	26.0	14.0	7.2	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
91	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	21.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
92	<i>Eucalyptus microcorys</i>	Tallowwood	450	420	616	193	20.0	14.0	7.4	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
93	<i>Corymbia citriodora</i>	Spotted Gum	360		360	113	23.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
94	<i>Allocasuarina littoralis</i>	Black She-oak	210		210	66	5.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
95	<i>Eucalyptus microcorys</i>	Tallowwood	380		380	119	18.0	9.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
96	<i>Corymbia citriodora</i>	Spotted Gum	390		390	123	21.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
97	<i>Corymbia citriodora</i>	Spotted Gum	320		320	101	21.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
98	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	25.0	15.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
99	<i>Corymbia citriodora</i>	Spotted Gum	330	270	426	134	16.0	6.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
100	<i>Corymbia citriodora</i>	Spotted Gum	350		350	110	20.0	10.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
101	<i>Corymbia citriodora</i>	Spotted Gum	850		850	267	23.0	12.0	10.2	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details						Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
102	Acacia melanoxylon	Australian Blackwood	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
103	Acacia disparrima	Hickory Wattle	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
104	Acacia concurrens	Black Wattle	120		120	38	5.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
105	Acacia disparrima	Hickory Wattle	200		200	63	5.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
106	Eucalyptus microcorys	Tallowwood	480		480	151	22.0	10.0	5.8	2.4	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
107	Acacia disparrima	Hickory Wattle	150		150	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
108	Corymbia citriodora	Spotted Gum	360		360	113	20.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
109	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
110	Eucalyptus microcorys	Tallowwood	630		630	198	24.0	14.0	7.6	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
111	Eucalyptus fibrosa	Broad-leaved Red Ironbark	790		790	248	23.0	15.0	9.5	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
112	Allocasuarina littoralis	Black She-oak	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
113	Eucalyptus fibrosa	Broad-leaved Red Ironbark	530		530	167	18.0	7.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
114	Corymbia intermedia	Pink Bloodwood	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
115	Acacia disparrima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
116	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
117	Corymbia intermedia	Pink Bloodwood	350		350	110	20.0	12.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
118	Eucalyptus microcorys	Tallowwood	540		540	170	18.0	10.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
119	Acacia concurrens	Black Wattle	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
120	Acacia concurrens	Black Wattle	110		110	35	4.0	3.0	2.0	1.3		-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	Remove	Native Tree	-
121	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
122	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
123	Eucalyptus microcorys	Tallowwood	380		380	119	14.0	6.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
124	Eucalyptus microcorys	Tallowwood	410		410	129	15.0	6.0	4.9	2.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
125	Corymbia citriodora	Spotted Gum	200		200	63	8.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
126	Eucalyptus microcorys	Tallowwood	330	290	439	138	18.0	7.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
127	Eucalyptus fibrosa	Broad-leaved Red Ironbark	580		580	182	25.0	12.0	7.0	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
128	Eucalyptus microcorys	Tallowwood	500		500	157	18.0	10.0	6.0	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
129	Corymbia citriodora	Spotted Gum	340		340	107	16.0	8.0	4.1	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
130	Corymbia intermedia	Pink Bloodwood	380		380	119	22.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
131	Eucalyptus fibrosa	Broad-leaved Red Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
132	Eucalyptus fibrosa	Broad-leaved Red Ironbark	300		300	94	15.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
133	Acacia concurrens	Black Wattle	100	100	141	44	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
134	Acacia concurrens	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
135	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
136	Acacia melanoxylon	Australian Blackwood	150		150	47	5.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
137	Corymbia citriodora	Spotted Gum	130		130	41	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
138	Syagrus romanzoffiana	Cocos Palm	220		220	69	6.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical														

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
154	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
155	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
156	<i>Syagrus romanzoffiana</i>	Cocos Palm	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
157	<i>Syagrus romanzoffiana</i>	Cocos Palm	210		210	66	7.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
158	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	8.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
159	<i>Solanum mauritianum</i>	Wild Tobacco	130	100, 90	187	59	4.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
160	<i>Corymbia torelliana</i>	Cadaghi	320		320	101	8.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
161	<i>Corymbia torelliana</i>	Cadaghi	240		240	75	7.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
162	<i>Acacia concurrens</i>	Black Wattle	180		180	57	7.0	4.0	2.2	1.6	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
163	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	18.0	10.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
164	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	16.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
165	<i>Acacia concurrens</i>	Black Wattle	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
166	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
167	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	440		440	138	16.0	6.0	5.3	2.3	Irregular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
168	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
169	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
170	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	16.0	7.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-	
171	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
172	<i>Acacia disparrima</i>	Hickory Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
173	<i>Acacia disparrima</i>	Hickory Wattle	120	100	156	49	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
174	<i>Acacia disparrima</i>	Hickory Wattle	150	130, 90	218	68	6.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
175	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
176	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	21.0	8.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
177	<i>Corymbia citriodora</i>	Spotted Gum	380		380	119	23.0	10.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
178	<i>Corymbia citriodora</i>	Spotted Gum	470		470	148	25.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
179	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	22.0	10.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
180	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
181	<i>Corymbia citriodora</i>	Spotted Gum	430		430	135	25.0	14.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
182	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	430		430	135	26.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
183	<i>Acacia concurrens</i>	Black Wattle	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-	
184	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	570		570	179	17.0	7.0	6.8	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
185	<i>Corymbia citriodora</i>	Spotted Gum	210		210	66	12.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
186	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	24.0	12.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
187	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	640		640	201	26.0	15.0	7.7	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
188	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	-										

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
206	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
207	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
208	<i>Corymbia intermedia</i>	Pink Bloodwood	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
209	<i>Corymbia intermedia</i>	Pink Bloodwood	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
210	<i>Corymbia intermedia</i>	Pink Bloodwood	240		240	75	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
211	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	120		120	38	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
212	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	8.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
213	<i>Corymbia citriodora</i>	Spotted Gum	200		200	63	10.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
214	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
215	<i>Eucalyptus acmenoides</i>	White Mahogany	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
216	<i>Eucalyptus acmenoides</i>	White Mahogany	250		250	79	8.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
217	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	8.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
218	<i>Eucalyptus acmenoides</i>	White Mahogany	160		160	50	7.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
219	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	180		180	57	9.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
220	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
221	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	5.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
222	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
223	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	460		460	145	22.0	8.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
224	<i>Eucalyptus acmenoides</i>	White Mahogany	260	180	316	99	8.0	5.0	3.8	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
225	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
226	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
227	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
228	<i>Allocasuarina littoralis</i>	Black She-oak	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
229	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	540		540	170	18.0	8.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
230	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	4.0	3.0	2.6	1.8	Regular	-	-	Die-back	-	Lopped	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
231	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
232	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	8.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
233	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
234	<i>Corymbia citriodora</i>	Spotted Gum	270	190, 160, 130	389	122	12.0	7.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
235	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
236	<i>Corymbia intermedia</i>	Pink Bloodwood	120	90	150	47	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
237	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
238	<i>Corymbia intermedia</i>	Pink Bloodwood	140	120, 100, 90	228	72	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
239	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	210	90, 90</																													

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
258	<i>Corymbia citriodora</i>	Spotted Gum	530		530	167	23.0	12.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
259	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-
260	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
261	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
262	<i>Acacia concurrens</i>	Black Wattle	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
263	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
264	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	20.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
265	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	310		310	97	13.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
266	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
267	<i>Corymbia citriodora</i>	Spotted Gum	230		230	72	16.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
268	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
269	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
270	<i>Acacia disarrima</i>	Hickory Wattle	200		200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
271	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
272	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
273	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
274	<i>Acacia disarrima</i>	Hickory Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
275	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
276	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
277	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
278	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
279	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
280	<i>Acacia disarrima</i>	Hickory Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
281	<i>Acacia disarrima</i>	Hickory Wattle	110	100	149	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
282	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
283	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
284	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
285	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
286	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
287	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
288	<i>Acacia concurrens</i>	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
289	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
290	<i>Acacia concurrens</i>	Black Wattle	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
291	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
292	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
293	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	18.0	6.0	4.3	2.2	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
294	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
295	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
296	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
297	<i>Acacia concurrens</i>	Black Wattle	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
298	<i>Corymbia torelliana</i>	Cadaghi	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
299	<i>Corymbia torelliana</i>	Cadaghi	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
300	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
301	<i>Acacia concurrens</i>	Black Wattle	120		120	38	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
302	<i>Acacia concurrens</i>	Black Wattle	130	130	184	58	6.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
303	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
304	<i>Acacia concurrens</i>	Black Wattle	200	190	276	87	7.0	5.0	3.3	1.9	Regular	-	Thinning	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
305	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
306	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
307	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
308	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
309	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value						Additional Details				
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
310	Acacia concurrens	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
311	Acacia concurrens	Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
312	Corymbia citriodora	Spotted Gum	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
313	Allocasuarina littoralis	Black She-oak	100	90, 90	162	51	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
314	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
315	Allocasuarina littoralis	Black She-oak	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
316	Eucalyptus siderophloia	Northern Grey Ironbark	140		140	44	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
317	Corymbia torelliana	Cadaghi	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-	
318	Acacia concurrens	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
319	Lophostemon suaveolens	Swamp Box	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
320	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	3.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
321	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	4.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
322	Alphitonia excelsa	Soap Tree	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
323	Corymbia citriodora	Spotted Gum	160		160	50	11.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
324	Acacia dispartima	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
325	Corymbia intermedia	Pink Bloodwood	160		160	50	8.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
326	Corymbia citriodora	Spotted Gum	180		180	57	11.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
327	Eucalyptus fibrosa	Broad-leaved Red Ironbark	590		590	185	26.0	15.0	7.1	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
328	Eucalyptus fibrosa	Broad-leaved Red Ironbark	560		560	176	25.0	13.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
329	Lophostemon suaveolens	Swamp Box	180	100	206	65	8.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
330	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
331	Acacia concurrens	Black Wattle	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	Minor	Introduced	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
332	Acacia dispartima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
333	Acacia dispartima	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
334	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
335	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
336	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
337	Eucalyptus siderophloia	Northern Grey Ironbark	310		310	97	16.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
338	Eucalyptus acmenoides	White Mahogany	200		200	63	9.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
339	Eucalyptus acmenoides	White Mahogany	250		250	79	14.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
340	Eucalyptus propinqua	Small-fruited Grey Gum	200		200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
341	Eucalyptus propinqua	Small-fruited Grey Gum	430		430	135	24.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
342	Acacia dispartima	Hickory Wattle	160		160	50	6.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
343	Melaleuca saligna	Willow Bottlebrush	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
344	Allocasuarina littoralis	Black She-oak	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-																	

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
362	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	23.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
363	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	18.0	6.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
364	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
365	<i>Acacia disparima</i>	Hickory Wattle	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
366	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
367	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
368	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
369	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	710		710	223	27.0	10.0	8.5	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
370	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	17.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
371	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	290		290	91	17.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
372	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
373	<i>Corymbia intermedia</i>	Pink Bloodwood	270		270	85	18.0	9.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
374	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	28.0	13.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
375	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	27.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
376	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
377	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
378	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	350		350	110	18.0	8.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
379	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	400		400	126	16.0	8.0	4.8	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
380	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	18.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
381	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	11.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
382	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	10.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
383	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
384	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	9.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
385	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
386	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	11.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
387	<i>Lophostemon suaveolens</i>	Swamp Box	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
388	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
389	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	10.0	4.0	2.0	1.4	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
390	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
391	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	9.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
392	<i>Eucalyptus microcorys</i>	Tallowwood	200		200	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
393	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
394	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	14.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
395	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
396	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180	80	197	62	17.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
397	<i>Allocasuarina</i>																																

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value						Additional Details				
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
414	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	330	360	488	153	28.0	14.0	5.9	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
415	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
416	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
417	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	14.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
418	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	985		985	309	29.0	14.0	11.8	3.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-	
419	<i>Eucalyptus microcorys</i>	Tallowwood	400		400	126	21.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-	
420	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
421	DEAD/STAG		280		280	88	14.0		3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Retain	Dead Tree (stag)	-	
422	<i>Allocasuarina littoralis</i>	Black She-oak	280		280	88	18.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-	
423	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
424	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
425	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
426	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	330		330	104	21.0	11.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
427	DEAD/STAG		380		380	119	19.0	7.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Dead Tree (stag)	-	
428	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	400		400	126	25.0	12.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
429	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	890		890	280	29.0	14.0	10.7	3.2	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
430	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	9.0	3.7	2.0	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
431	<i>Eucalyptus microcorys</i>	Tallowwood	420		420	132	24.0	9.0	5.0	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
432	<i>Acacia disparima</i>	Hickory Wattle	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
433	<i>Eucalyptus microcorys</i>	Tallowwood	510		510	160	23.0	11.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-	
434	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
435	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	18.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
436	<i>Melaleuca saligna</i>	Willow Bottlebrush	120	130	177	56	10.0	5.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
437	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	9.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
438	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	290		290	91	21.0	11.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
439	<i>Corymbia citriodora</i>	Spotted Gum	510	100	520	163	26.0	10.0	6.2	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
440	<i>Corymbia citriodora</i>	Spotted Gum	380	140	405	127	23.0	9.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
441	<i>Acacia disparima</i>	Hickory Wattle	100	90	135	42	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
442	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
443	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
444	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
445	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
446	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
447	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	14.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
448	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180		180	57	14.0	4.0	2.2	1.6	Regular	-	-																			

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
466	Corymbia citriodora	Spotted Gum	560		560	176	28.0	14.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
467	Corymbia citriodora	Spotted Gum	530		530	167	23.0	13.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
468	Eucalyptus fibrosa	Broad-leaved Red Ironbark	260		260	82	17.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
469	Acacia disarrima	Hickory Wattle	220		220	69	15.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)		Native Tree	-	
470	Corymbia citriodora	Spotted Gum	390		390	123	25.0	13.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
471	Corymbia citriodora	Spotted Gum	380		380	119	21.0	11.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
472	Corymbia citriodora	Spotted Gum	380		380	119	23.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
473	Eucalyptus fibrosa	Broad-leaved Red Ironbark	430		430	135	21.0	11.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
474	Eucalyptus fibrosa	Broad-leaved Red Ironbark	330		330	104	16.0	7.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
475	Eucalyptus carnea	Broad-leaved White Mahogany	350		350	110	17.0	8.0	4.2	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
476	Corymbia citriodora	Spotted Gum	470		470	148	28.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
477	Eucalyptus fibrosa	Broad-leaved Red Ironbark	240		240	75	16.0	7.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
478	Corymbia intermedia	Pink Bloodwood	150		150	47	15.0	6.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
479	Eucalyptus siderophloia	Northern Grey Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
480	Acacia disarrima	Hickory Wattle	360		360	113	15.0	9.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)		Native Tree	-	
481	Eucalyptus propinqua	Small-fruited Grey Gum	190		190	60	15.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
482	Eucalyptus propinqua	Small-fruited Grey Gum	170		170	53	14.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
483	Eucalyptus microcorys	Tallowwood	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
484	Lophostemon suaveolens	Swamp Box	140		140	44	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
485	Eucalyptus carnea	Broad-leaved White Mahogany	170	100	197	62	15.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
486	Eucalyptus propinqua	Small-fruited Grey Gum	330		330	104	15.0	6.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
487	Eucalyptus propinqua	Small-fruited Grey Gum	130		130	41	15.0	7.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
488	Eucalyptus propinqua	Small-fruited Grey Gum	160		160	50	13.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
489	Acacia disarrima	Hickory Wattle	230		230	72	14.0	6.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
490	Eucalyptus propinqua	Small-fruited Grey Gum	200		200	63	14.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
491	Eucalyptus propinqua	Small-fruited Grey Gum	110		110	35	9.0	4.0	2.0	1.3	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
492	Eucalyptus propinqua	Small-fruited Grey Gum	130		130	41	14.0	6.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
493	Eucalyptus propinqua	Small-fruited Grey Gum	420		420	132	28.0	14.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
494	Eucalyptus carnea	Broad-leaved White Mahogany	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
495	Corymbia citriodora	Spotted Gum	260		260	82	16.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
496	Acacia disarrima	Hickory Wattle	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
497	Eucalyptus fibrosa	Broad-leaved Red Ironbark	120		120	38	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
498	Acacia disarrima	Hickory Wattle	140		140	44	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
499	Corymbia citriodora	Spotted Gum	230		230	72	18.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical																

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
518	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	260		260	82	18.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
519	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	17.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
520	<i>Corymbia intermedia</i>	Pink Bloodwood	170	130, 120	245	77	15.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
521	<i>Corymbia torelliana</i>	Cadaghi	120		120	38	12.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-	
522	<i>Melaleuca saligna</i>	Willow Bottlebrush	130		130	41	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
523	<i>Corymbia intermedia</i>	Pink Bloodwood	180	100, 120	238	75	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
524	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
525	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	450		450	141	23.0	13.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
526	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	17.0	6.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
527	<i>Corymbia citriodora</i>	Spotted Gum	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
528	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	80	100, 60	141	44	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
529	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
530	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
531	<i>Eucalyptus tereticornis</i>	Forest Red Gum	210		210	66	16.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
532	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	12.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
533	<i>Acacia disparrima</i>	Hickory Wattle	230		230	72	15.0	8.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
534	<i>Acacia disparrima</i>	Hickory Wattle	230	200	305	96	14.0	9.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
535	<i>Corymbia citriodora</i>	Spotted Gum	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
536	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	10.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
537	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
538	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	19.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
539	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
540	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	9.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
541	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	23.0	15.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
542	<i>Acacia disparrima</i>	Hickory Wattle	150		150	47	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
543	<i>Corymbia intermedia</i>	Pink Bloodwood	350		350	110	21.0	11.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
544	<i>Allocasuarina littoralis</i>	Black She-oak	160		160	50	9.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
545	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
546	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	14.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
547	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	16.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
548	<i>Corymbia citriodora</i>	Spotted Gum	110	120	163	51	16.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
549	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	23.0	14.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
550	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	24.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
551	<i>Acacia disparrima</i>	Hickory Wattle	140		140	44	14.0	5.0	2.0	1.4	Regular	-																				

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
570	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	110		110	35	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
571	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
572	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
573	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
574	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	120		120	38	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
575	<i>Corymbia intermedia</i>	Pink Bloodwood	140	130, 60	200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
576	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
577	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
578	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	120, 90, 80	197	62	14.0	1.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
579	<i>Melaleuca saligna</i>	Willow Bottlebrush	190		190	60	11.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
580	<i>Corymbia intermedia</i>	Pink Bloodwood	120	120	170	53	15.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
581	<i>Corymbia intermedia</i>	Pink Bloodwood	160	200	256	80	17.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
582	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	170	170	240	76	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
583	<i>Acacia disparima</i>	Hickory Wattle	120	160	240	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
584	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	17.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
585	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	14.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
586	<i>Corymbia intermedia</i>	Pink Bloodwood	170		170	53	13.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
587	<i>Corymbia intermedia</i>	Pink Bloodwood	100	80	128	40	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
588	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
589	<i>Corymbia intermedia</i>	Pink Bloodwood	160		160	50	15.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
590	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	17.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
591	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	11.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
592	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	21.0	9.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
593	<i>Lophostemon suaveolens</i>	Swamp Box	150		150	47	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
594	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180	130	222	70	15.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
595	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	90	135	42	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Regular	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
596	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
597	<i>Melaleuca saligna</i>	Willow Bottlebrush	110		110	35	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
598	<i>Corymbia intermedia</i>	Pink Bloodwood	200	210	290	91	16.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
599	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	16.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
600	<i>Eucalyptus camea</i>	Broad-leaved White Mahogany	120	250	277	87	14.0	8.0	3.3	1.9	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
601	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	200		200	63	17.0	8.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
602	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	210		210	66	18.0	9.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
603	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
604	<i>Corymbia intermedia</i>	Pink Bloodwood	250	210	326	103	15.0	7.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
605	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	240		240	75	17.0	8.0	2.9	1.8	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
606	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
607	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	160		160	50	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
608	<i>Lophostemon suaveolens</i>	Swamp Box	160		160	50	14.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
609	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
610	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-



State Code 25 Response

State Development Assessment Provisions v3.0

54 George Alexander Way, Coomera, Queensland 4209
Prepared for Coomera GA Pty Ltd

3 February 2023

Job 11241

Document Control

Document: 54 George Alexander Way, Coomera, Queensland 4209, SDAP v3.0 State Code 25 Response, prepared by Saunders Havill Group for Coomera GA Pty Ltd, dated 3 February 2023.

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Prepared by

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Acronyms and abbreviations

DA	Development Application
DES	Department of Environment and Science
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning (Qld)
EAR	Ecological Assessment Report
COGC	City of Gold Coast
ha	Hectare
KHA	Koala habitat area (core)
KPA	Koala Priority Area
KMP	Koala Management Plan
km	Kilometres
MSES	Matters of State Environmental Significance
NCA	<i>Nature Conservation Act 1992</i>
PA	<i>Planning Act 2016 (Qld)</i>
PO	Performance Outcome
PR	<i>Planning Regulation 2017 (Qld)</i>
RE	Regional Ecosystem
RoL	Reconfiguration of a Lot
SARA	State Assessment Referral Agency (part of DILGP)
SDAP	State Development Assessment Provision
SHG	Saunders Havill Group
SPP	State Planning Policy 2017 (Qld)
VCFMP	Vegetation Clearing and Fauna Management Plan
VMA	<i>Vegetation Management Act 1999 (Qld)</i>

1. Introduction

Saunders Havill Group (SHG) was engaged by Coomera GA Pty Ltd (the client) to complete site investigations and prepare a report to demonstrate compliance with State Development Assessment Provision (SDAP) *State Code 25: Development in South East Queensland Koala habitat areas* version 3.0 (State Code 25), implemented by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). This report provides a response to State Code 25 for land located at 54 George Alexander Way, Coomera, Queensland, 4209 (described as Lot 96 on RP187418). This report supports the requirements of a Development Application (DA) to City of Gold Coast (CoGC) and reviews the site's ecological values in accordance with State Code 25.

Contextually, the site is located approximately 2.7 kilometres (km) south of Coomera centre and approximately 1.4 km west of the Pacific Motorway. The site is bound by George Alexander Way to the west, an approved development to the north, a similar large residential lot to the south and an established residential community to the east. Refer to **Figure 1** for Site Context and **Figure 2** for Site Aerial. Key property details are listed in **Table 1**.

Under the *Planning Regulation 2017* (PR) February 2020 amendments to the Koala habitat provisions, the site is located outside a Koala Priority Area (KPA). The subject site is partially mapped as containing Koala Habitat Area (KHA) which is a polygon spanning the eastern extent along with the northern and southern borders of the site (refer **Figure 3**).

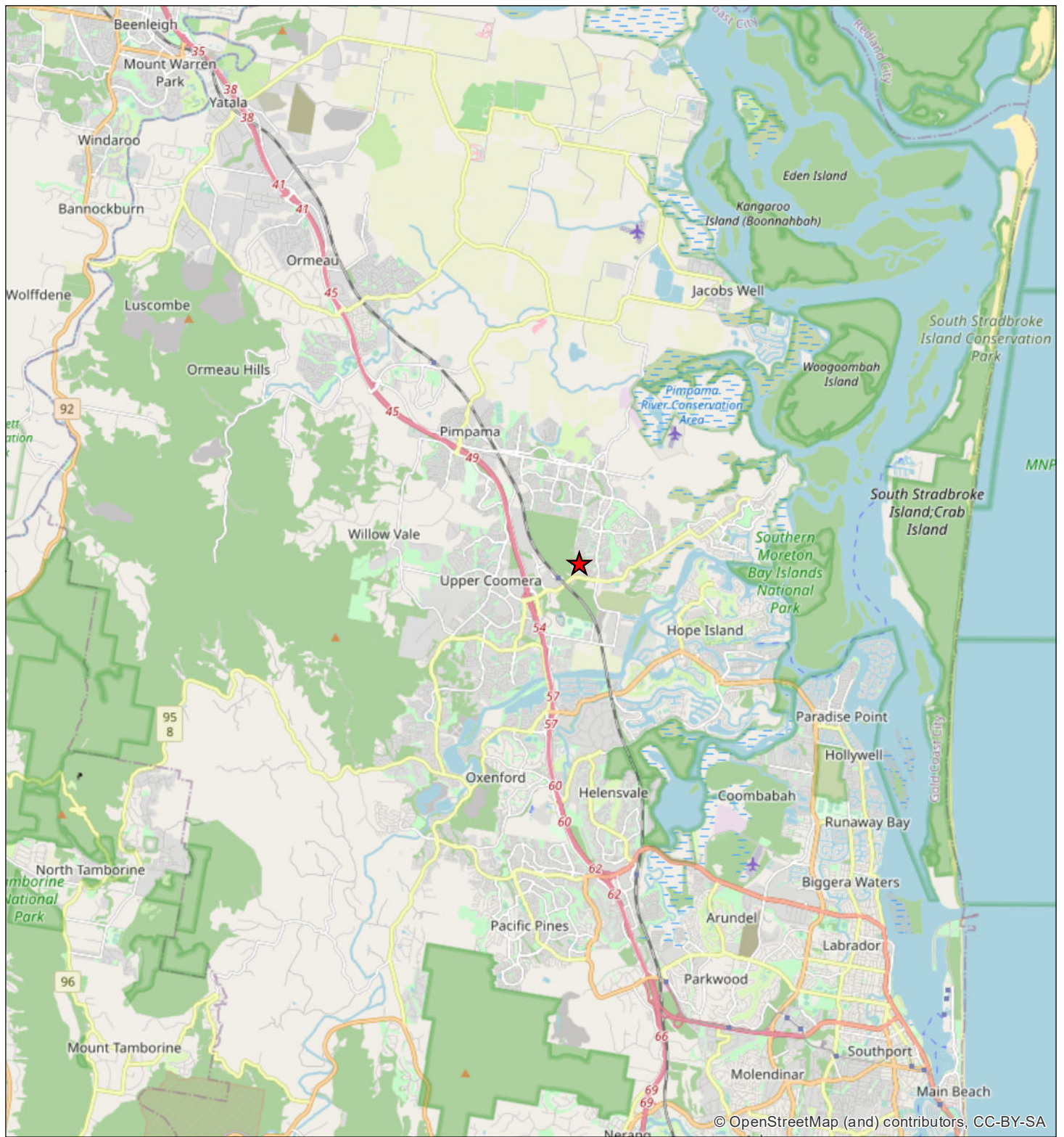
As detailed in the Ecological Assessment Report (EAR) that accompanies this application, the site is considered relatively isolated and fragmented from surrounding KHA due to the presence of major roads and residential developments occurring in the greater landscape. A large patch of KHA is located to the west of George Alexander Way; however, due to a existing development approval over this large area of KHA, it is considered a more favourable outcome to limit Koala movement to ecological corridors in the surrounding landscape, notably located 500 m east of the site.

Further, consideration needs to be given to the zoned intent of the land for emerging community for residential purposes to cater for the growing South East Queensland population and to the high levels of existing habitat fragmentation already surrounding the site. The site adjoins residential development to the north and existing residential communities to the east. Connectivity to areas of Koala habitat is limited predominantly to the west of George Alexander Way and east. Due to these landscape factors and the presence of a high traffic road to the west of the site, the long-term viability of the site to support Koala is considered reduced.

The subject application proposes the removal of mapped KHA to facilitate the planned development. As the development proposes to interfere with the Koala habitat located within the premises, a response to State Code 25 is required to demonstrate compliance with performance outcomes (POs).

Table 1: Property summary

Address	54 George Alexander Way, Coomera, Queensland 4209
RPD	Lot 96 on RP187418
Area	3.01 ha
VMA 1999	Category B (remnant) Least Concern RE12.11.5 (0.82 ha) Category B (remnant) Least Concern RE12.11.24 (1.19 ha) Category X (non-remnant) vegetation (1.0 ha) Essential habitat for <i>Phascolarctos cinereus</i> (Koala)
MSES	MSES – Wildlife habitat (koala habitat areas – core) MSES – Regulated vegetation (essential habitat) MSES – Regulated vegetation (intersecting a watercourse) MSES – Regulated vegetation (category B)
Koala Habitat	Wholly outside Koala Priority Area Partially contains Koala Habitat Area (core)
LGA	City of Gold Coast
Planning Scheme / Zoning	<i>Gold Coast City Plan 2016</i> / High density residential, Medium density residential
Environmental Overlays	<u>Priority species</u> : Matters of State Environmental Significance – State significant species and Koala habitat areas <u>Vegetation management</u> : Matters of Local Environmental Significance vegetation management – medium priority vegetation <u>Significance wetlands and watercourse</u> : local significant wetlands buffer area
Existing Land Use	Large lot residential
Proposed Land Use	Residential subdivision



Legend

★ Site Location

Figure 1
Site Context

Coomera GA
Pty Ltd

File ref. 11241 E Figure 1 Site Context A
Date 2/02/2023
Project George Alexander Way, Coomera

SH saunders
havill
group

0 1 2 3 4 5 km

Scale (A4): 1:150,000 [GDA 2020 MGA Z56]





Legend

- Site DCDB
- Qld DCDB

Figure 2

Site Aerial

Coomera GA
Pty Ltd

File ref. 11241 E Figure 2 Site Aerial A
Date 2/02/2023
Project George Alexander Way, Coomera

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0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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2. *Planning Regulation 2017*

The clearing of Koala habitat for development is regulated under the *Planning Regulation 2017* (PR). The PR was amended on 7 February 2020 to strengthen protections over Koala habitat with respect to development. The amendments saw the introduction of KPAs and KHA. Whether or not a site is located within a KPA and / or contains KHA determines the level of restrictions imposed and the response or referral pathway required for the site.

The Department of State Development, Infrastructure, Local Government and Planning's (DSDILGP's) State Assessment and Referral Agency (SARA) Development Assessment Mapping System (DAMS) identifies the site as being located entirely outside a KPA however, the site does contain a small amount of mapped KHA (refer **Figure 3**). As per Schedule 10, Part 10, Division 2, Section 16A of the PR (refer extract below), the removal of a KHA is not prohibited where located outside of a KPA.

Part 10	Koala habitat in SEQ region
Division 1	Preliminary
16	Application of part
	This part applies in relation to development on a lot that is completely or partly in the SEQ region.
Division 2	Prohibited development
16A	Prohibited development—development interfering with koala habitat in koala priority area and koala habitat area
(1)	Development is prohibited development to the extent the development involves interfering with koala habitat in an area that is both—
(a)	a koala priority area; and
(b)	a koala habitat area.

Under Schedule 10, Part 10, Division 3, Subdivision 1, Section 16B, the proposal is considered assessable development as it interferes with a KHA outside the KPA (refer extract below). Under Subdivision 2, Table 1, the proposal is assessable under the SDAP. The SDAP code assessment relevant to Koala is *State Code 25: Development in South East Queensland koala habitat areas*.

Division 3	Development interfering with koala habitat in koala habitat areas outside koala priority areas
Subdivision 1	Assessable development
16B	Assessable development—development interfering with koala habitat in koala habitat areas outside koala priority areas
(1)	Development is assessable development to the extent the development involves interfering with koala habitat in an area that—
(a)	is a koala habitat area; but
(b)	is not a koala priority area.



Legend

-  Site DCDB
-  Qld DCDB

Koala Habitat Areas

-  Core Remnant Koala Habitat Areas
-  Core Regrowth Koala Habitat Areas
-  Locally Refined Koala Habitat Areas
-  Koala Priority Areas

Figure 3

Koala Priority Areas and
Koala Habitat Areas

File ref. 11241 E Figure 3 Koala 2019 A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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3. Koala Habitat Area field assessment

A desktop assessment revealed the subject site contains approximately 2 ha of mapped core KHA which spans approximately two-thirds of the site as an irregular shaped polygon (refer **Figure 3**). The central and western portion of the site does not contain KHA mapping and is reflective of the disturbed residential portion of the site.

3.1. Koala Surveys

The site area was walked to ensure all species (flora and fauna) were recorded and identified. Particular attention was paid to any Matters of National, State or Local Environmental Significance that were listed as possibly occurring on or within the vicinity of the site and specific micro-assemblages which may support these threatened species. This included observation of vertebrate fauna present on or proximal to the site.

The observational survey included identification of ecological features and values such as broad vegetation communities, fauna habitats and ecological corridors. Recording fauna habitat features within the project area included the identification of habitat trees. Evidence of Koala in the form of scats was identified on-site (refer to **Photo set 1**).

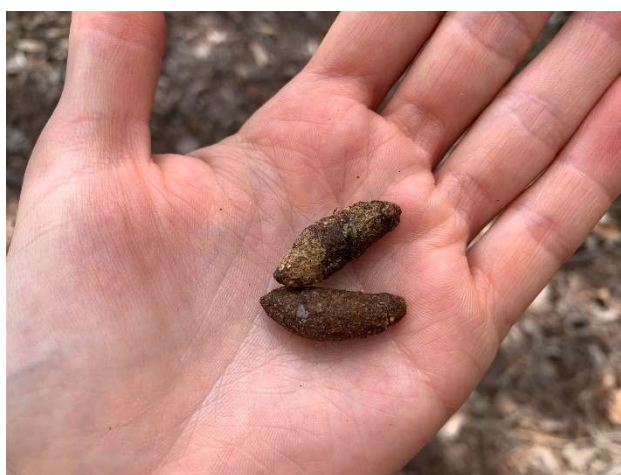


Photo set 1: Koala scats observed on-site.

Field assessment included a GPS tree plot survey of all site trees during which each was individually examined for Koala usage (refer **Plan 1**). The GPS tree plot found evidence of Koala in the form of scats and scratch marks.

3.2. Vegetation Values

The Regulated Vegetation Management Map identified the site is mapped partially as Category X (non-remnant) vegetation and partially as Category B (remnant) vegetation containing Least Concern RE12.11.5 (0.82 ha) and Least Concern RE12.11.24 (1.19 ha) which is considered generally accurate based on ground-truthing field surveys (refer **Figure 4** and **Figure 5**).

Several eucalypt species are present across the site including *Corymbia citriodora* (Spotted Gum), which is dominant across the site, along with *Eucalyptus siderophloia* (Grey Ironbark), *E. propinqua* (Small-fruited Grey

Gum) and *E. acmenoides* (White Mahogany). Scattered *E. fibrosa* (Broad-leaved Red Ironbark) and *Eucalyptus carnea* (Broad-leaved White Mahogany) are also present. These species are consistent with the mapped regional ecosystem. Refer to **Photos 2 to 4**.

A mix of understorey eucalypt and non-eucalypt trees are also scattered throughout including the area including *Acacia concurrens* (Black Wattle), *Alphitonia excelsa* (Soap Tree), *Acacia disparrima* (Hickory Wattle), *Lophostemon saueolens* (Swamp Box), *Melaleuca saligna* (White Bottlebrush) and *Allocasuarina littoralis* (Black She-oak). The ground layer across the site contains a mix of native and exotic species including *Imperata cylindrica* (Blady Grass), *Dianella caerulea* (Blue Flax-lily), *Heteropogon contortus* (Black Speargrass), *Themeda triandra* (Kangaroo Grass), *Chrysocephalum apiculatum* (Yellow Buttons), *Senecio madagascariensis* (Fireweed), and *Ageratum houstonianum* (Blue Billygoat Weed). Floral structural complexity is lacking in some regulated vegetation areas with native vegetation values absent within the shrub and ground layer.

Category X areas similarly contain scattered non-juvenile eucalypt trees, however, with a higher proportion of cleared areas with planted natives and exotic species surrounding the residential dwelling and associated infrastructure.

Following the survey of vegetation values, it was that confirmed that the mapped KHA on the site contains various Koala habitat tree species, such as the *Corymbia* and *Eucalyptus* species detailed above, and is therefore accurately mapped as KHA.



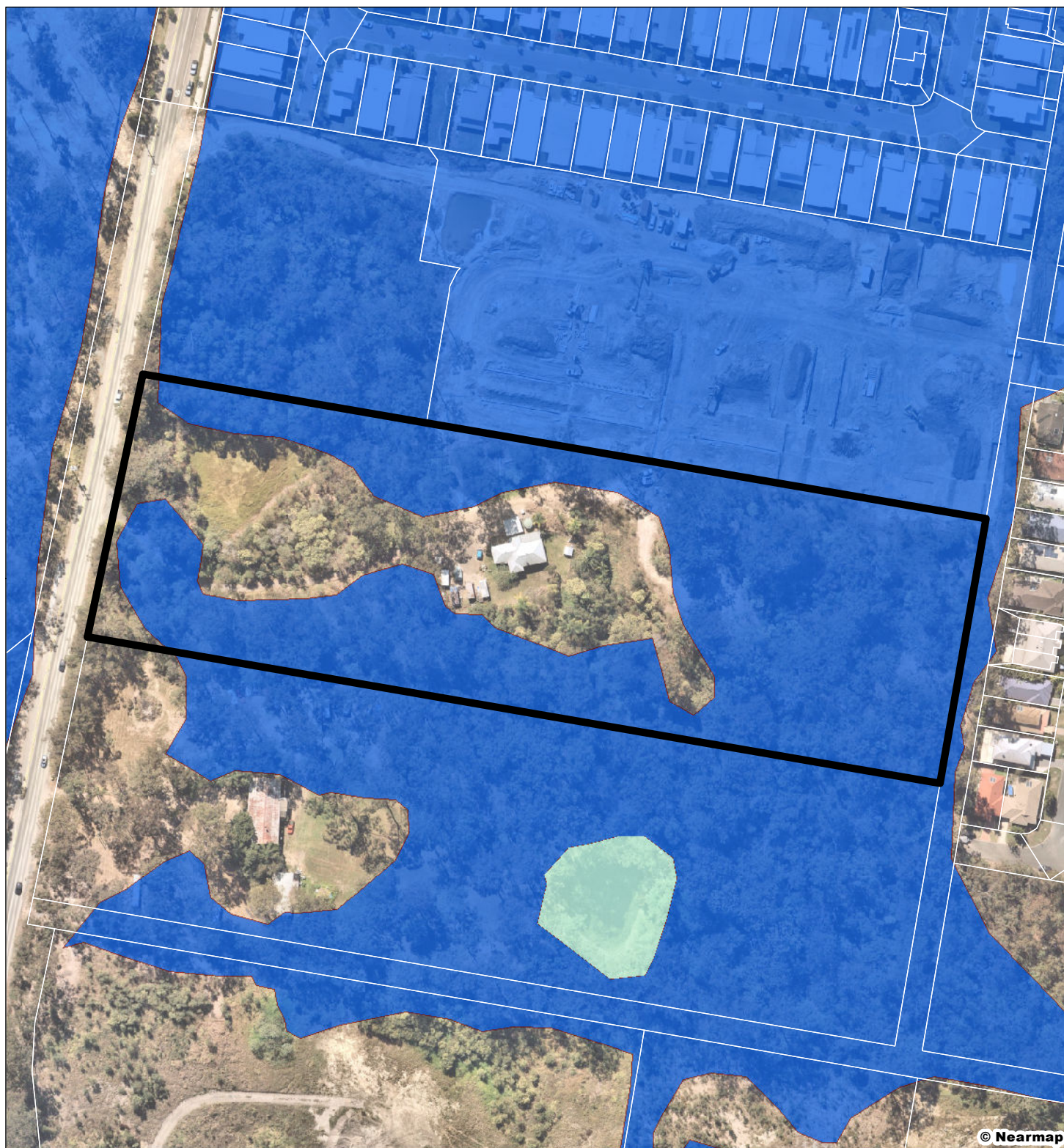
Photo 2: Large *Corymbia citriodora* and *Eucalyptus acmenoides* within mapped KHA in eastern portion of site.



Photo 3: Scattered non-juvenile Koala habitat trees within KHA in southern portion of site.



Photo 4: Scattered non-juvenile Koala habitat trees within KHA in northern portion of site.



Legend



Site DCDB



Qld DCDB

Regulated Vegetation



Category A area -
Vegetation Offset/Compliance
notices/VDecs



Category B area -
Remnant vegetation



Category C area -
High value regrowth
vegetation



Category R area -
Reef regrowth
watercourse vegetation



Category X area -
Vegetation not regulated
under the VMA



Water



Area not categorised

Figure 4

Regulated Vegetation Management Map

File ref. 11241 E Figure 4 RVMM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

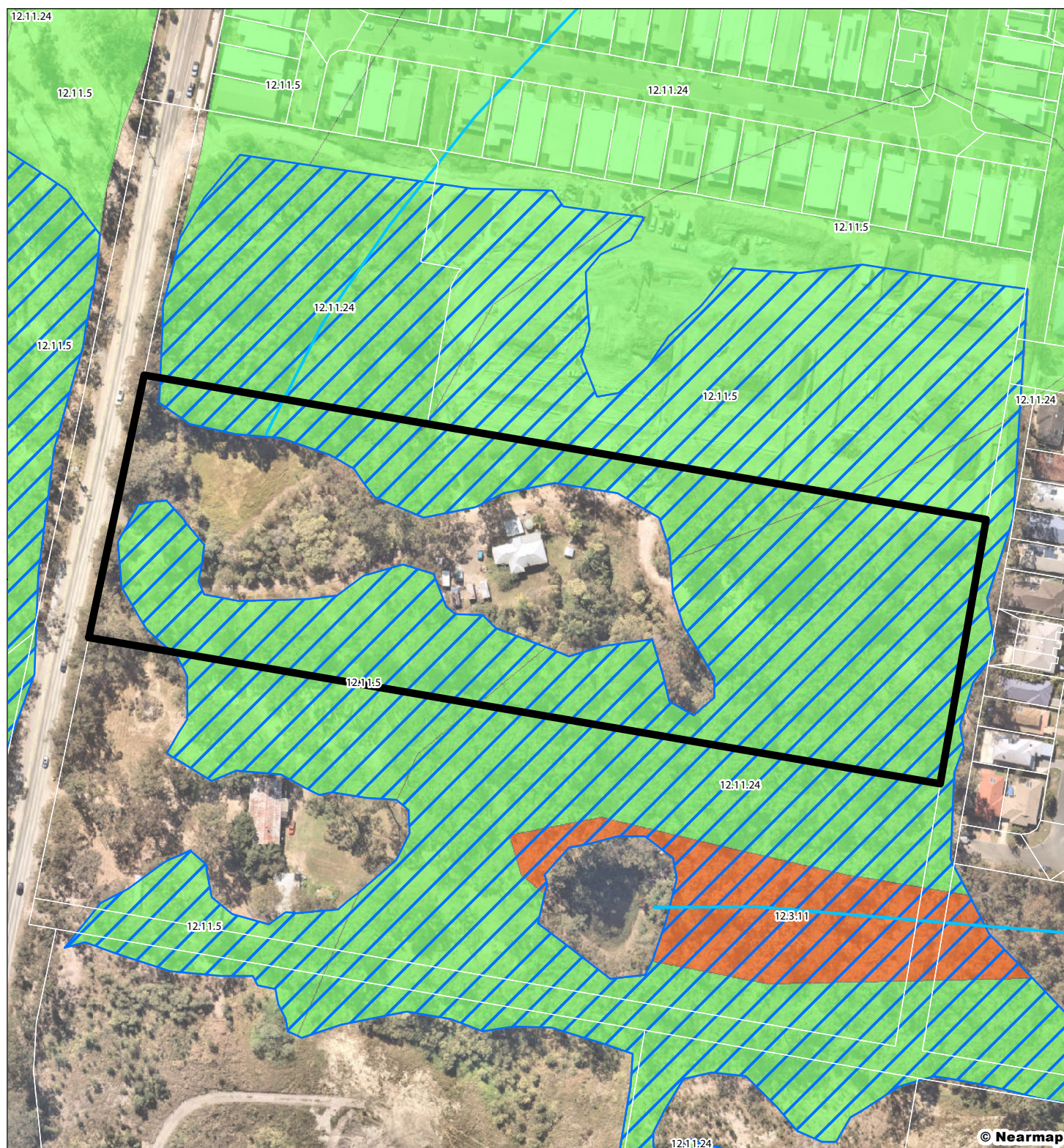
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB



VM Watercourses



VM Essential Habitat



VM Wetland

Regional Ecosystems mapping



Category A or B area containing endangered regional ecosystems



Category A or B area containing of concern regional ecosystems



Category A or B area that is a least concern regional ecosystem



Category C area containing endangered regional ecosystems



Category C area containing of concern regional ecosystems



Category C area that is a least concern regional ecosystem

Figure 5

Regulated Vegetation Supporting Map

File ref. 11241 E Figure 5 RVSM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]

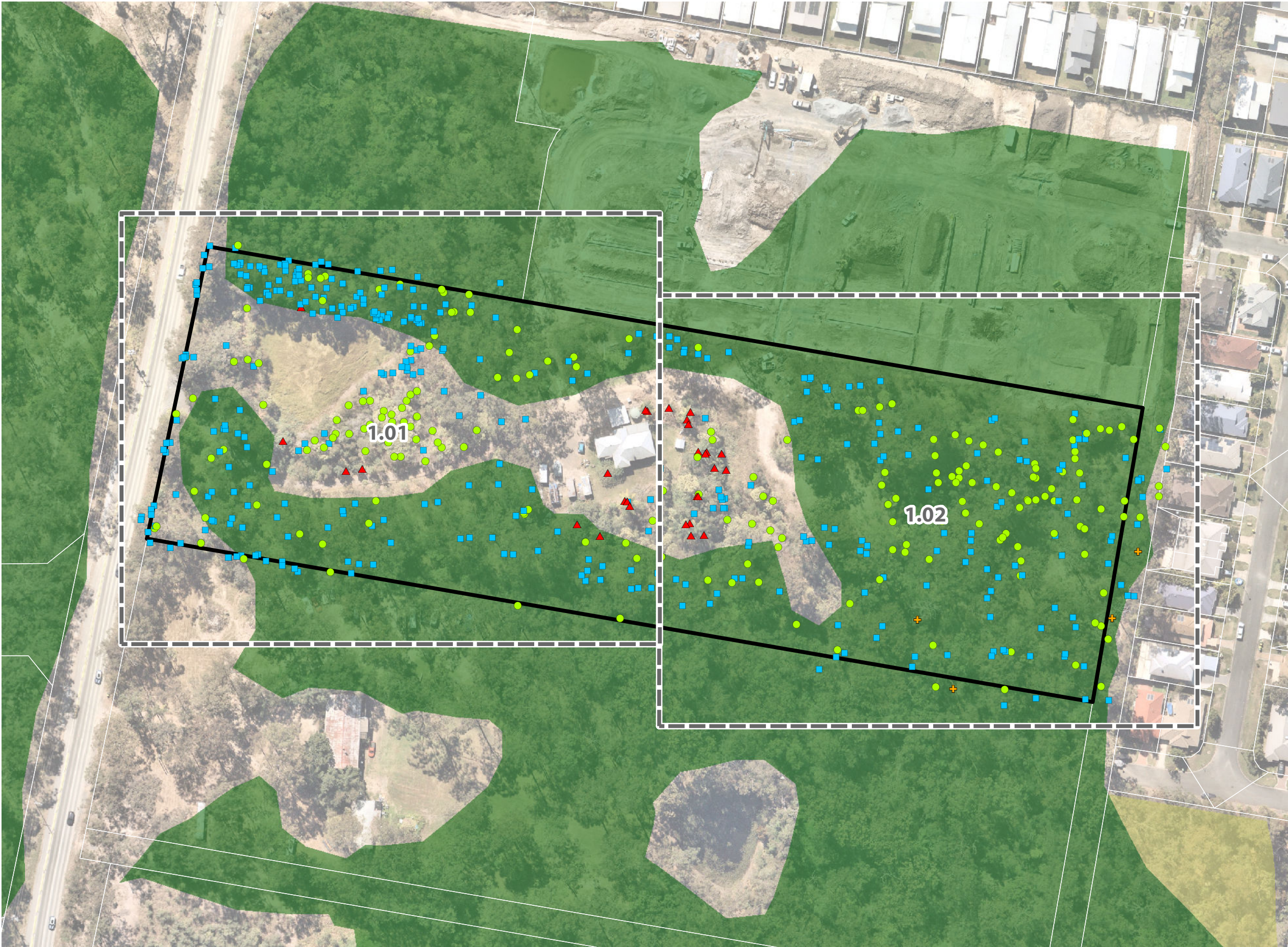


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1.00 GPS Tree Plot



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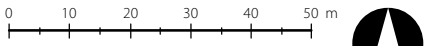
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Legend

- Site DCDB
- Qld DCDB
- Koala Habitat Areas**
 - Core Remnant Koala Habitat Areas
 - Core Regrowth Koala Habitat Areas
- GPS Tree Plot**
 - Native Tree
 - Non-juvenile Koala Habitat Tree
 - Introduced Species/ Environmental Weed
 - Dead/Stag Tree

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



Transverse Mercator | GDA 2020 | Zone 56 | 1:1,250 @ A3



1.01 GPS Tree Plot



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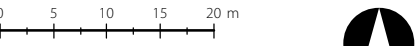
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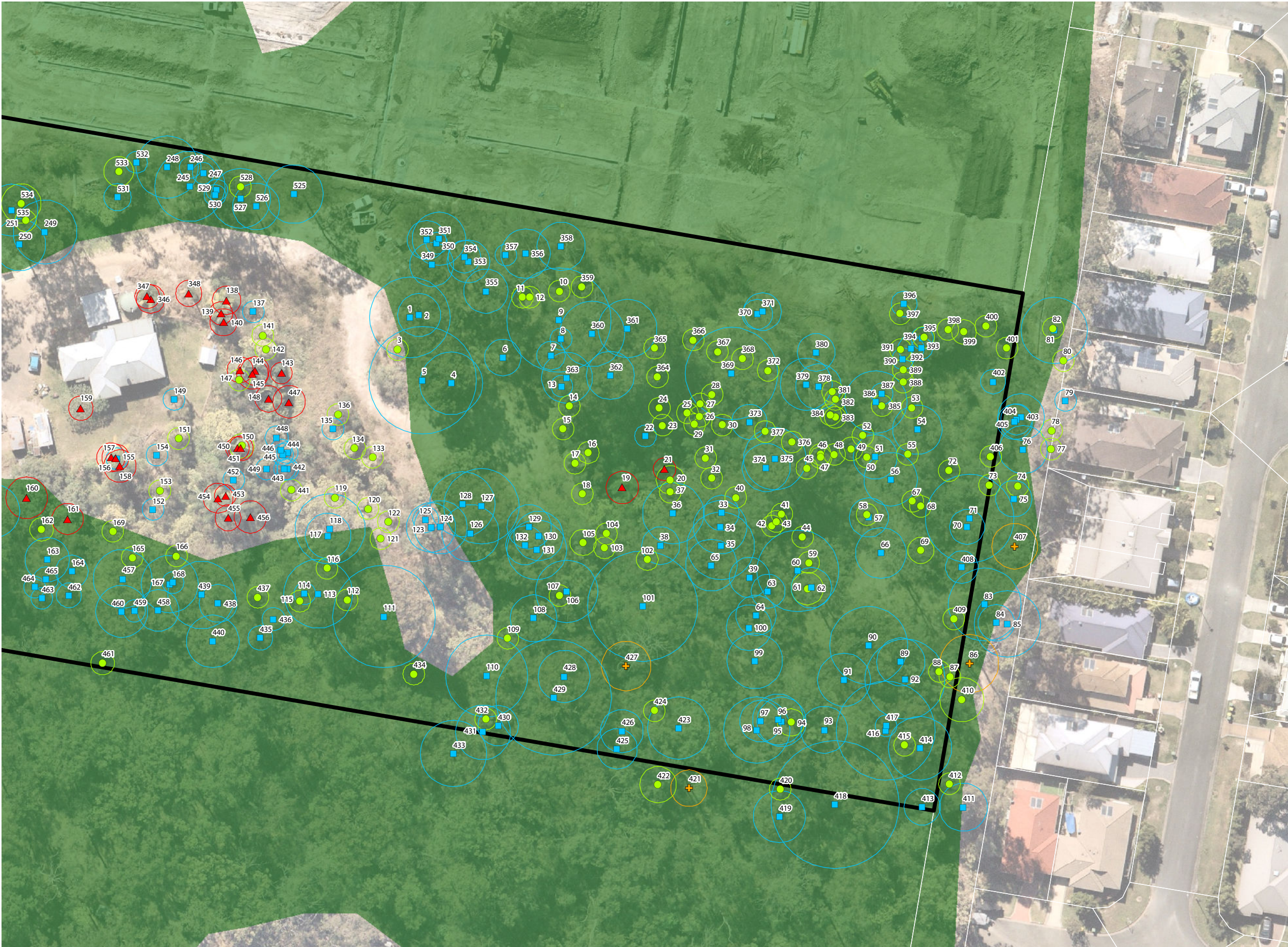


Transverse Mercator | GDA 2020 | Zone 56 | 1:710 @ A3

Address / RPD: 96/RP187418

2/02/2023 | 11241 E 01_1 GPS Tree Plot A

1.02 GPS Tree Plot



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Site DCDB

Qld DCDB

Koala Habitat Areas

Core Remnant Koala Habitat Areas

Core Regrowth Koala Habitat Areas

GPS Tree Plot (w/ TPZ)

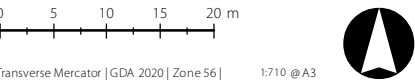
Native Tree

Non-juvenile Koala Habitat Tree

Introduced Species/ Environmental Weed

Dead/Stag Tree

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3.3. Landscape connectivity analysis

The surrounding landscape contains a mosaic of land uses ranging from medium density residential development to large lot residential areas. George Alexander Way bounds the site to the west and presents a notable hazard to Koalas and fauna generally. Adjoining urban areas and residential roads generally limit fauna movement to the west and south-east (refer **Photos 5 and 6**). Refer to **Plan 2** for Koala Connectivity Assessment.

A large, contiguous area of Koala habitat presently exists to the west of the site and adjoins the Gold Coast railway line. This area links to larger patches of contiguous Koala habitat to the north. It should be noted that a large portion of this habitat is earmarked for development under the proposed Coomera Woods development.

Koala habitat areas are also mapped to the immediate south of the site within large lot residences, however, these areas are unlikely to be retained due to the planning intent for medium and high-density residential areas. An established Koala corridor is located approximately 580 metres to the east of the site accessible via a linear area of retained trees. The potential for the subject site to facilitate broader landscape movements is considered limited due to the significant hazards and increasing urban encroachment (refer **Photo 7**). Notably, Foxwell Road which receives a high level of traffic from the Pacific Motorway is located approximately 300 m south of the site, removing the potential for connectivity to the south.

While the site contains non-juvenile Koala habitat trees and evidence of Koala activity, the broader connectivity potential of the site is generally limited due to the absence of habitat north and east of the site and presence of George Alexander Way to the west and Foxwell Road to the south. The site is not considered to represent a significant stepping-stone vegetation with immediate connecting habitat values confined to the south within a landscape earmarked for residential development. The site is not considered conducive to fauna movement generally and is unlikely to provide long-term value to Koala at a landscape context.



Photo 5: High density residential under construction to the north.

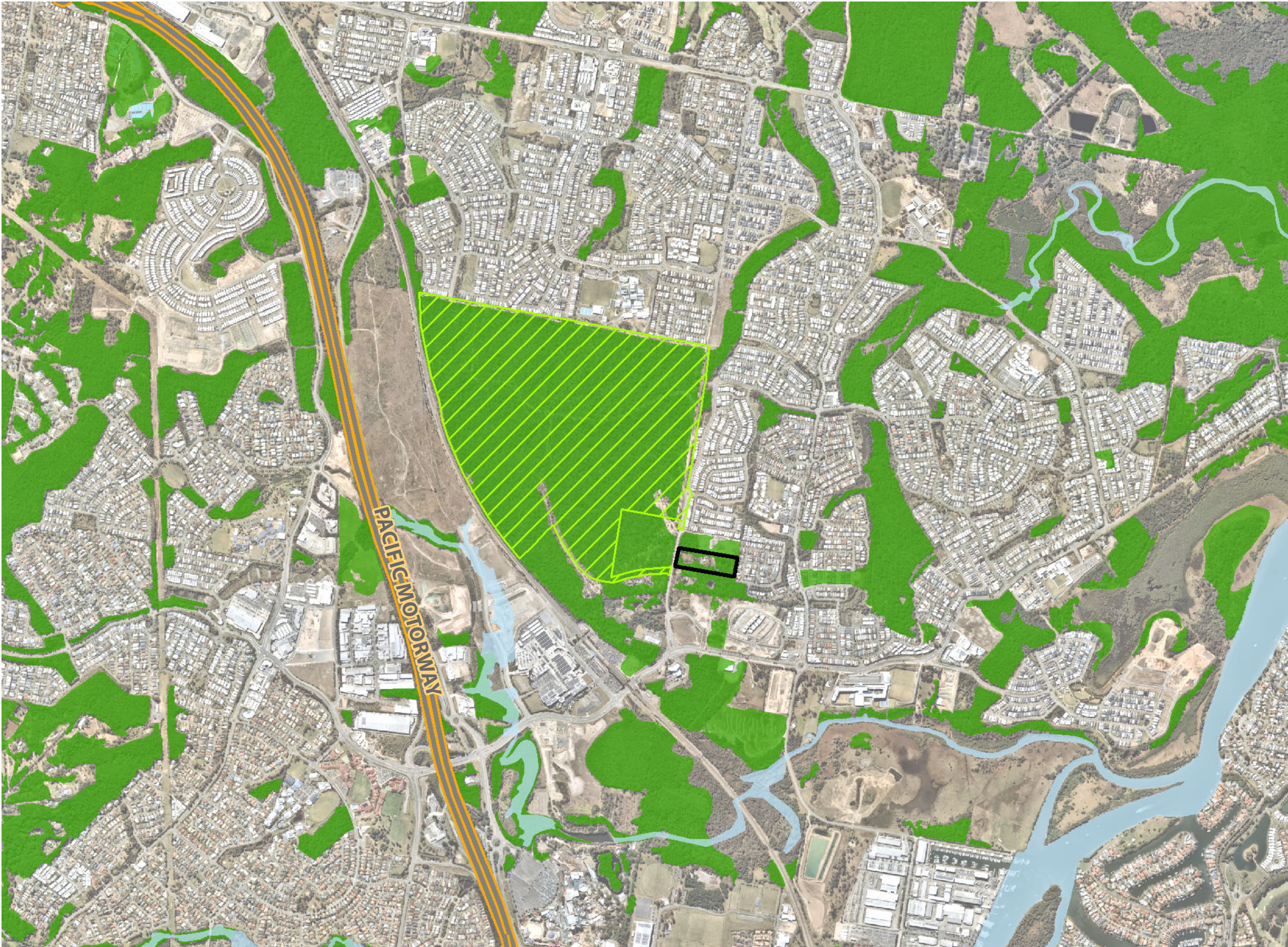


Photo 6: Construction to the north and high density residential to the east (east facing)



Photo 7: Fence along southern boundary and adjoining vegetation values.

2. Koala Connectivity Assessment



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Site DCDB

Coomera Woods Project (indicative area)

Connectivity

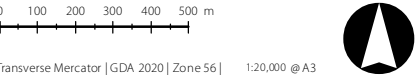
Koala Habitat Areas

Impediments

Major & Arterial Roads

Waterways

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



4. State Development Assessment Provisions

It is acknowledged that the proposed development will interfere with a KHA outside of the KPA (refer **Plan 3** for Development Assessment Plan).

Under Schedule 10, Part 10, Division 3, Subdivision 1, Section 16B, the proposal is considered assessable development and is therefore to be referred to the chief executive of the Department of Environment and Science (DES) for assessment under State Code 25. The purpose of the code is to ensure that development in South East Queensland:

1. *does not cause an unacceptable impact on mapped koala habitat areas;*
2. *is designed and located to avoid impacts or, where the matters of state environmental significance cannot be reasonably avoided, impacts are reasonably minimised and mitigated; and*
3. *does not result in a significant residual impact on a matter of state environmental significance unless the significant residual impact is acceptable, and an offset is provided.*

The proposed development will impact approximately 1.56 ha of KHA on-site. A total of 150 NJKHTs within mapped KHA are proposed to be removed. A response to relevant performance outcomes of State Code 25 is provided in **Table 2**. Refer to **Plan 2** for Connectivity Assessment and **Plan 3** for Development Assessment.

Table 2: Response to State Code 25, Table 25.3 Reconfiguring a Lot.

Performance outcomes	Acceptable outcomes	Response
PO6 Development supports connectivity between highly connected patches of mapped koala habitat areas.	No acceptable outcome is prescribed.	PO6 – Complies The development proposes to impact 1.56 ha of Koala habitat including necessary cut and fill earthworks to facilitate the development. Koala habitat values are located to the immediate south of the site, to the northwest, and across George Alexander Way. These habitat areas, particularly those to the south and north are becoming increasingly isolated due to encroaching approved urban development. It is understood that the site is encapsulated within the medium and high-density residential zones adjoining the Coomera Town Centre and is unlikely to focus on supporting Koala movement at the landscape level. In addition, mapped Koala habitat directly to the north of the site has already been removed under a development approval on the adjacent lot. Notably, the large contiguous area of KHA mapped to the west of the site is associated with the approved Coomera Woods development project. Retained Koala habitat areas are located in a linear corridor approximately 580 m to the east of the site (refer Plan 2). Therefore, due to the surrounding landscape context, it is not considered that the mapped koala habitat areas on site or adjacent to the site are currently highly connected. It is anticipated that any connection between koala habitat areas will further diminish as a result of the approved developments that will be constructed surrounding the site.

Performance outcomes	Acceptable outcomes	Response
PO7 Interfering with koala habitat as a result of the development does not compromise safe koala movement by preventing fragmentation of patches of mapped koala habitat areas.	No acceptable outcome is prescribed.	PO7 – Complies The site is located within a landscape that is becoming increasingly isolated due to encroaching urban development. The site is presently connected to Koala habitat to the south within large lot residential areas with a small patch located immediately to the northwest, adjoining the residential development. However, this is zoned as high density residential therefore is unlikely to be retained long-term. Habitat values are generally absent to the north and east of the site. As a result, the development will not isolate or fragment patches of mapped Koala habitat areas. Although the proposed development interferes with mapped KHA, the development is not considered to exacerbate fragmentation or decrease safe Koala movement within the landscape, as these processes are already occurring due to the existing urban development that surrounds the site. The proposed development layout has been situated adjacent to the area recently cleared for the development immediately to the north in order to align with existing residential areas, and concentrate the new urban roads and residential dwellings in areas where these threats to safe koala movement are already present.
PO8 Interfering with koala habitat as a result of the development supports connectivity between highly connected patches of mapped koala habitat areas.	No acceptable outcome is prescribed.	PO8 - Complies The development proposes to impact 1.56 ha of Koala habitat containing 150 NJKHTs for necessary earthworks to facilitate the development. Due to the small size of the site and the planning intent on and surrounding the site, it is not considered viable to include areas to facilitate Koala movement between patches of koala habitat area, as these patches will become further

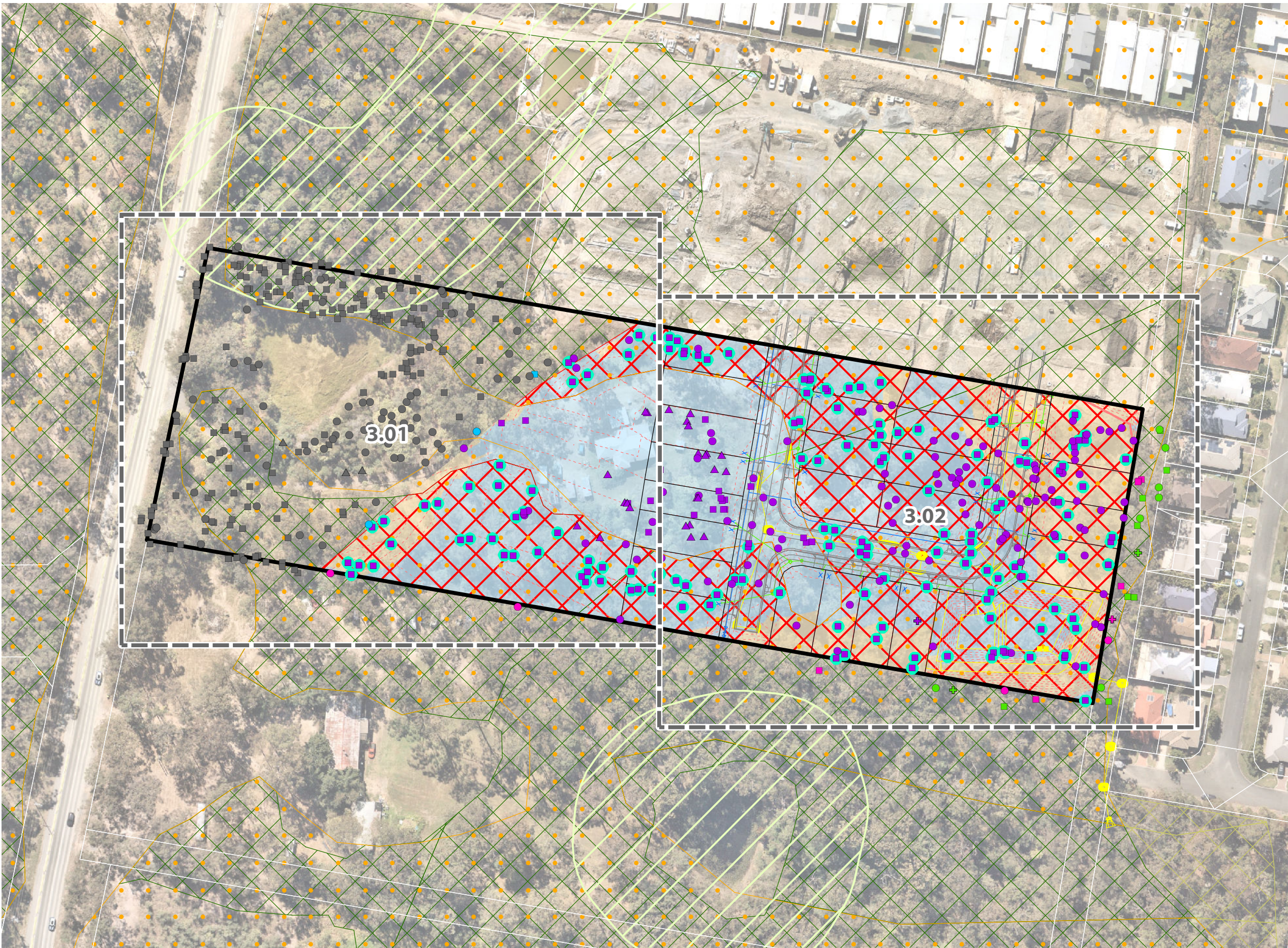
Performance outcomes	Acceptable outcomes	Response
		disconnected due to the already approved developments surrounding the site. Habitat connections that are more likely to promote safe Koala movement into the future are present to the east of the site within a linear corridor of retained vegetation located to the east of the site (refer Plan 2).
PO9 Development supports safe koala movement by preventing fragmentation of patches of mapped koala habitat areas.	No acceptable outcome is prescribed.	PO9 – Complies The development proposes to impact 1.56 ha of Koala habitat containing 150 NJKHTs for necessary earthworks to facilitate the development. Koala habitat values are located to the immediate south of the site, to the northwest, and across George Alexander Way (refer Plan 2). These habitat areas, particularly those to the south and north are becoming increasingly isolated due to encroaching approved urban development. The site is located within a landscape that is becoming increasingly isolated and urbanised. The site is located directly adjacent to a current development occurring to the north. In addition, George Alexander Way is located to the west of the site which is anticipated to receive increased traffic levels as the Coomera Woods and other projects progress. The site represents the logical next step for development that will result in the least impacts in terms of fragmentation of habitat. The development layout has been designed to connect to adjacent developments to the north in the most logical way possible, consolidating the residential development impacts in a specific area.

Performance outcomes	Acceptable outcomes	Response
PO10 Development within a mapped koala habitat area is undertaken in a way that prevents the risk of injury or death of koalas.	No acceptable outcome is prescribed.	It is not considered that the retention of further KHA areas on-site would be a sustainable or favourable outcome for Koala, particularly as threats in the landscape surrounding the site become more prevalent as a result of increased traffic from George Alexander Way, and the approved encroaching urban development occurring to the north and east of the site.
		PO10 - Complies A Koala Management Plan (KMP) has been provided with this assessment to ensure compliance with PO10 (refer to Appendix B). The KMP has been developed by a suitably qualified person and addresses: - activities that may cause injury or death of koalas from construction activities; and - acceptable measures to avoid and mitigate injury or death of koalas from construction activities - compliance with the sequential clearing and koala spotter requirements under section 10 and 11 of the Nature Conservation (Koala) Conservation Plan 2017. More specifically, the KMP will address mitigation measures and risk management via the utilisation of the protocols within the KMP as well as the subsequent Vegetation Clearing and Fauna Management Plan (VCFMP) outlining further mitigation measures (to be issued at Operational Works stage). Within these, potential adverse impacts to Koalas are identified and outlined, with risk assessments, management frameworks and

Performance outcomes	Acceptable outcomes	Response
PO11 Development is designed and sited to: 1. avoid impacts on matters of state environmental significance; or 2. minimise and mitigate impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and 3. provide an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable significant residual impact on a matter of state environmental significance.	No acceptable outcome is prescribed.	action plans to thoroughly assess and monitor the area during activity. Specific actions and mitigation measures include engagement of a Fauna Spotter Catcher, development of a Wildlife Protection and Management Plan (WPMP) a Wildlife and Habitat Impact Mitigation Plan (WHIMP), VCFMP, temporary fencing, stop works procedures, and post-clearing and construction works Wildlife Management Report. The Fauna Spotter Catcher is to be on-site during vegetation clearing, both within and external to the mapped KHA. The development is to be undertaken in a way that prevents the risk of injury or death of Koalas.
		PO11 – Complies The proposal is to reconfigure one (1) lot into twenty-four (24) residential lots with internal access roads and a detention basin. The development proposes to impact 1.56 ha of mapped Koala habitat area containing 150 NJKHTs. The development footprint is located in the eastern portion of the development site to provide the most logical connection to the adjoining development to the north (refer Plan 3), and to consolidate residential development impacts into an area that is already where safe koala movement is already compromised from adjacent approved developments, and where threats to koala movement such as busy roads, and residential properties already existed.

Performance outcomes	Acceptable outcomes	Response
		Due to the small size of the site and the planning intent of adjoining lots for medium and high-density residential, it is not considered viable to retain vegetation on-site. Furthermore, with proposed developments surrounding the site, it is not considered a favourable outcome for the Koala in the long-term to encourage movement onto and adjoining the site. The implementation of the KMP and VCFMP will ensure that clearing of vegetation is undertaken in way that prevents the risk of injury or death of Koalas. In total, 150 NJKHTs within mapped on-site KHA and are required to be removed to facilitate the proposed development. An offset for significant residual impacts on Matters of State Environmental Significance will be provided in accordance with the <i>Environmental Offsets Act 2014</i>. The DES Environmental Offset Calculator indicates that a financial offset obligation of \$ 138,000.00 will be required to offset the impacts associated with removal of 150 NJKHTs within Koala habitat area.

3.00 Development Assessment



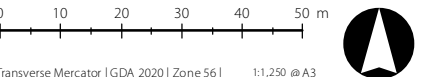
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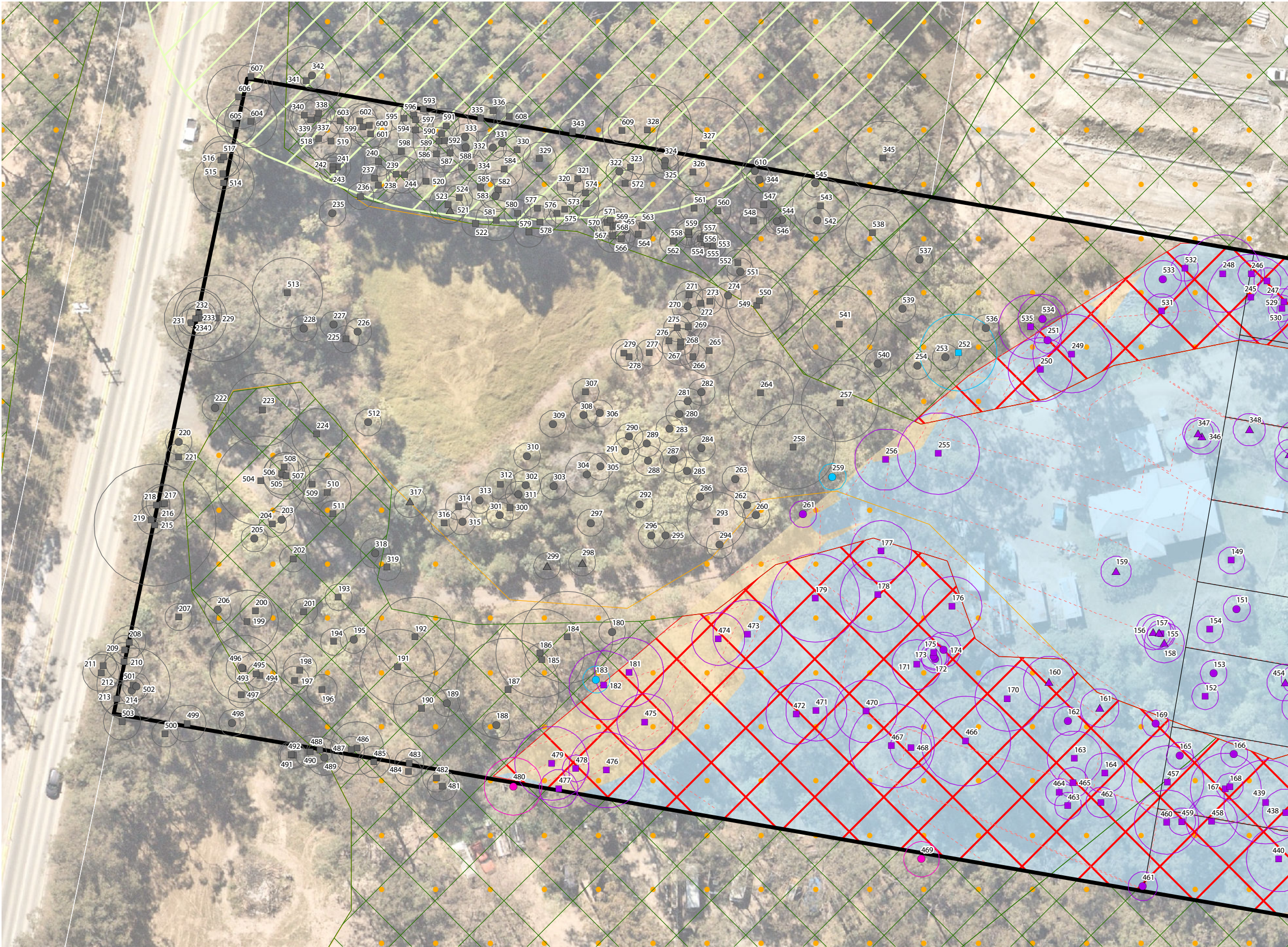
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- Legend**
- Site DCDB
 - Qld DCDB
 - State and Local Overlays**
 - Core Remnant Koala Habitat Areas
 - Core Regrowth Koala Habitat Areas
 - Koala Habitat Impacted [1.56 ha]
 - Gold Coast City Council Wetland and Waterways Buffer
 - Gold Coast City Council Medium Priority Vegetation
 - Engineering Detail**
 - Proposed Lot Boundaries
 - Proposed Road Design
 - Proposed Sewer Design
 - Proposed Stormwater Design
 - Proposed Water Design
 - Design Contours
 - Earthworks (Extent of Cut)
 - Earthworks (Extent of Fill)
 - GPS Tree Plot**
 - Tree to retain
 - Tree retention subject to arborist assessment
 - Tree retention subject to arborist assessment, and neighbour consent if removal is required
 - Tree to remove
 - Tree not subject to this application
 - Non-juvenile Koala habitat tree impacted within KHA [150]
 - Non-juvenile Koala Habitat Tree
 - Native Tree
 - Dead/Stag Tree
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3.01 Development Assessment



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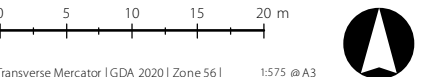
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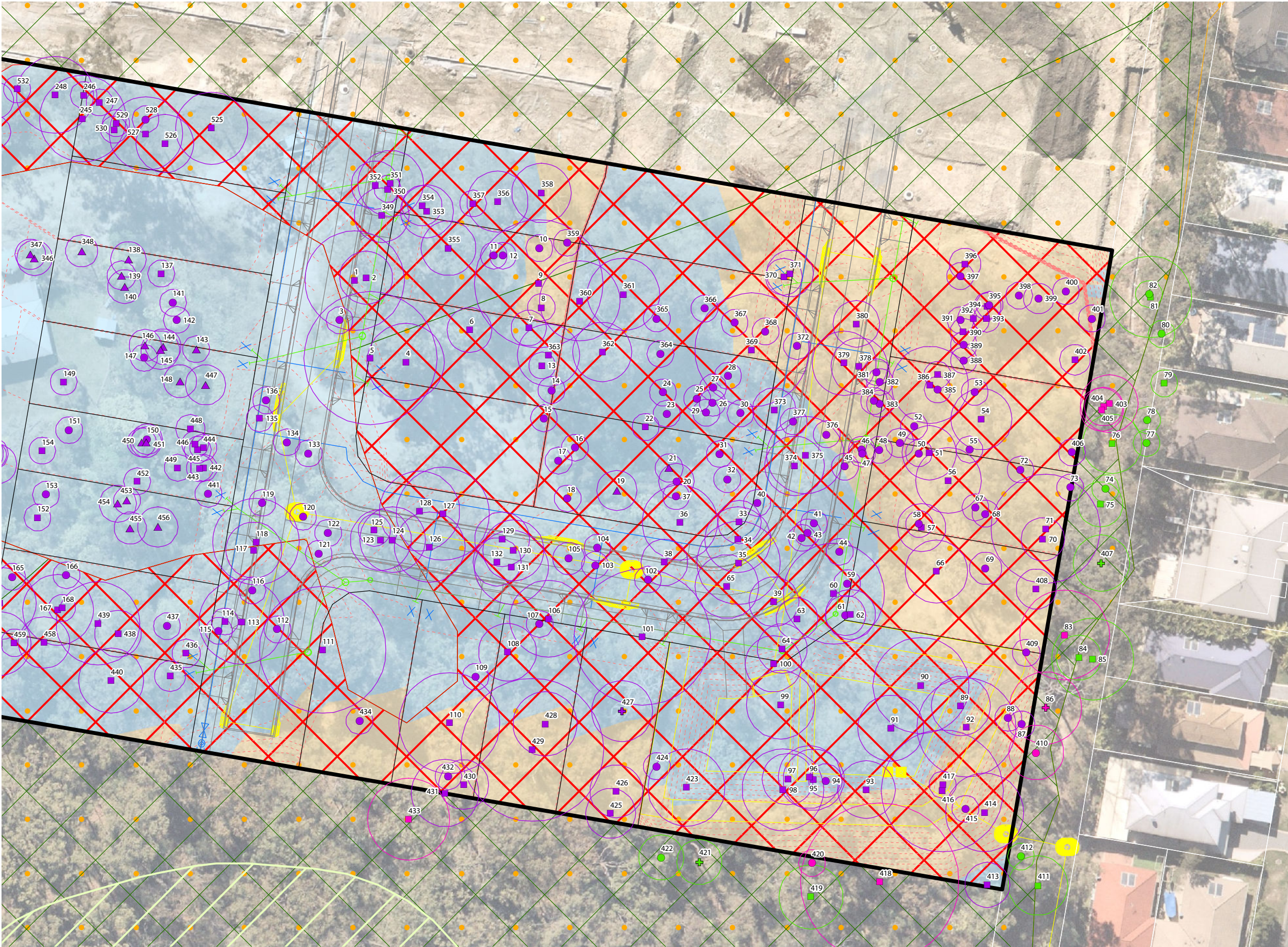
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3.02 Development Assessment



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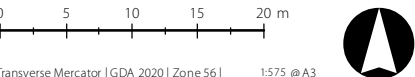
Layer Sources:
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Legend

- Site DCDB
- Qld DCDB
- State and Local Overlays**
 - Core Remnant Koala Habitat Areas
 - Core Regrowth Koala Habitat Areas
 - Koala Habitat Impacted [1.56 ha]
 - Gold Coast City Council Wetland and Waterways Buffer
 - Gold Coast City Council Medium Priority Vegetation
- Engineering Detail**
 - Proposed Lot Boundaries
 - Proposed Road Design
 - Proposed Sewer Design
 - Proposed Stormwater Design
 - Proposed Water Design
 - Design Contours
 - Earthworks (Extent of Cut)
 - Earthworks (Extent of Fill)
- GPS Tree Plot (w/ TPZ)**
 - Tree to retain
 - Tree retention subject to arborist assessment
 - Tree retention subject to arborist assessment, and neighbour consent if removal is required
 - Tree to remove
 - Tree not subject to this application
 - Non-juvenile Koala habitat tree impacted within KHA [150]
 - Non-juvenile Koala Habitat Tree
 - Native Tree
 - Dead/Stag Tree
 - Introduced Species/ Environmental Weed

Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



5. Appendices

Appendix A

Tree Schedule

Appendix B

Koala Management Plan

Appendix A

Tree Schedule

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
1	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	620		620	195	28.0	16.0	7.4	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
2	<i>Corymbia intermedia</i>	Pink Bloodwood	330		330	104	6.0	3.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
3	<i>Acacia concurrens</i>	Black Wattle	110	90	142	45	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
4	<i>Eucalyptus microcorys</i>	Tallowwood	340	340	481	151	16.0	7.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
5	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	830		830	261	27.0	14.0	10.0	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
6	<i>Corymbia intermedia</i>	Pink Bloodwood	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
7	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	220		220	69	15.0	6.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
8	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	170		170	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
9	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	800		800	251	28.0	16.0	9.6	3.0	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-	
10	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
11	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
12	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
13	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
14	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
15	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
16	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
17	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
18	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
19	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	6.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
20	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
21	<i>Schefflera actinophylla</i>	Umbrella Tree	150	90	175	55	7.0	3.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
22	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Introduced	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
23	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
24	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
25	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
26	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
27	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
28	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
29	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
30	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
31	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
32	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
33	<i>Eucalyptus microcorys</i>	Tallowwood	270		270	85	14.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
34	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	18.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
35	<i>Corymbia citriodora</i>	Spotted Gum	520		520	163	22.0	12.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
36	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	20.0	10.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
37	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
38	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	14.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
39	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	5.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
40	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
41	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical										

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
50	<i>Acacia concurrens</i>	Black Wattle	130		130	41	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
51	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	340		340	107	21.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
52	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
53	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
54	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	380		380	119	21.0	8.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
55	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
56	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	23.0	11.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
57	<i>Corymbia intermedia</i>	Pink Bloodwood	300		300	94	16.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
58	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
59	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
60	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	630		630	198	22.0	12.0	7.6	2.7	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
61	<i>Acacia concurrens</i>	Black Wattle	250		250	79	6.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
62	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	8.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
63	<i>Corymbia citriodora</i>	Spotted Gum	260		260	82	18.0	7.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
64	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
65	<i>Corymbia citriodora</i>	Spotted Gum	300	260	397	125	20.0	8.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
66	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	390		390	123	23.0	11.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
67	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
68	<i>Acacia disparrima</i>	Hickory Wattle	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
69	<i>Acacia disparrima</i>	Hickory Wattle	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
70	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	270		270	85	12.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
71	<i>Corymbia citriodora</i>	Spotted Gum	680		680	214	24.0	14.0	8.2	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
72	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
73	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
74	<i>Acacia concurrens</i>	Black Wattle	170		170	53	6.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
75	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
76	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	370		370	116	20.0	10.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
77	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
78	<i>Acacia concurrens</i>	Black Wattle	120	110	163	51	4.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
79	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
80	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
81	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	21.0	10.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
82	<i>Acacia disparrima</i>	Hickory Wattle	140		140	44	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
83	<i>Corymbia citriodora</i>	Spotted Gum	560		560	176	23.0	10.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-
84	<i>Corymbia citriodora</i>	Spotted Gum	280		280	88	17.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
85	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	510		510	160	25.0	12.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
86	DEAD/STAG		450		450	141	24.0	12.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Dead Tree (stag)	-
87	<i>Acacia disparrima</i>	Hickory Wattle	140	90	166	52	5.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
88	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
89	<i>Corymbia citriodora</i>	Spotted Gum	370		370	116	18.0	7.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
90	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	600		600	188	26.0	14.0	7.2	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
91	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	21.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
92	<i>Eucalyptus microcorys</i>	Tallowwood	450	420	616	193	20.0	14.0	7.4	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
93	<i>Corymbia citriodora</i>	Spotted Gum	360		360	113	23.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
94	<i>Allocasuarina littoralis</i>	Black She-oak	210		210	66	5.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
95	<i>Eucalyptus microcorys</i>	Tallowwood	380		380	119	18.0	9.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
96	<i>Corymbia citriodora</i>	Spotted Gum	390		390	123	21.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
97	<i>Corymbia citriodora</i>	Spotted Gum	320		320	101	21.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
98	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	25.0	15.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
99	<i>Corymbia citriodora</i>	Spotted Gum	330	270	426	134	16.0	6.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
100	<i>Corymbia citriodora</i>	Spotted Gum	350		350	110	20.0	10.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
101	<i>Corymbia citriodora</i>	Spotted Gum	850		850	267	23.0	12.0	10.2	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details						Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
102	Acacia melanoxylon	Australian Blackwood	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
103	Acacia disparrima	Hickory Wattle	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
104	Acacia concurrens	Black Wattle	120		120	38	5.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
105	Acacia disparrima	Hickory Wattle	200		200	63	5.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
106	Eucalyptus microcorys	Tallowwood	480		480	151	22.0	10.0	5.8	2.4	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
107	Acacia disparrima	Hickory Wattle	150		150	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
108	Corymbia citriodora	Spotted Gum	360		360	113	20.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
109	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
110	Eucalyptus microcorys	Tallowwood	630		630	198	24.0	14.0	7.6	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
111	Eucalyptus fibrosa	Broad-leaved Red Ironbark	790		790	248	23.0	15.0	9.5	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
112	Allocasuarina littoralis	Black She-oak	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
113	Eucalyptus fibrosa	Broad-leaved Red Ironbark	530		530	167	18.0	7.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
114	Corymbia intermedia	Pink Bloodwood	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
115	Acacia disparrima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
116	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
117	Corymbia intermedia	Pink Bloodwood	350		350	110	20.0	12.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
118	Eucalyptus microcorys	Tallowwood	540		540	170	18.0	10.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
119	Acacia concurrens	Black Wattle	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
120	Acacia concurrens	Black Wattle	110		110	35	4.0	3.0	2.0	1.3		-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	Remove	Native Tree	-
121	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
122	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
123	Eucalyptus microcorys	Tallowwood	380		380	119	14.0	6.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
124	Eucalyptus microcorys	Tallowwood	410		410	129	15.0	6.0	4.9	2.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
125	Corymbia citriodora	Spotted Gum	200		200	63	8.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
126	Eucalyptus microcorys	Tallowwood	330	290	439	138	18.0	7.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
127	Eucalyptus fibrosa	Broad-leaved Red Ironbark	580		580	182	25.0	12.0	7.0	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
128	Eucalyptus microcorys	Tallowwood	500		500	157	18.0	10.0	6.0	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
129	Corymbia citriodora	Spotted Gum	340		340	107	16.0	8.0	4.1	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
130	Corymbia intermedia	Pink Bloodwood	380		380	119	22.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
131	Eucalyptus fibrosa	Broad-leaved Red Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
132	Eucalyptus fibrosa	Broad-leaved Red Ironbark	300		300	94	15.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
133	Acacia concurrens	Black Wattle	100	100	141	44	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
134	Acacia concurrens	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
135	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
136	Acacia melanoxylon	Australian Blackwood	150		150	47	5.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
137	Corymbia citriodora	Spotted Gum	130		130	41	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
138	Syagrus romanzoffiana	Cocos Palm	220		220	69	6.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical														

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
154	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
155	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
156	<i>Syagrus romanzoffiana</i>	Cocos Palm	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
157	<i>Syagrus romanzoffiana</i>	Cocos Palm	210		210	66	7.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
158	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	8.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
159	<i>Solanum mauritianum</i>	Wild Tobacco	130	100, 90	187	59	4.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
160	<i>Corymbia torelliana</i>	Cadaghi	320		320	101	8.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
161	<i>Corymbia torelliana</i>	Cadaghi	240		240	75	7.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
162	<i>Acacia concurrens</i>	Black Wattle	180		180	57	7.0	4.0	2.2	1.6	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
163	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	18.0	10.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
164	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	16.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
165	<i>Acacia concurrens</i>	Black Wattle	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
166	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
167	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	440		440	138	16.0	6.0	5.3	2.3	Irregular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
168	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
169	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
170	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	16.0	7.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-	
171	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
172	<i>Acacia disparrima</i>	Hickory Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
173	<i>Acacia disparrima</i>	Hickory Wattle	120	100	156	49	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
174	<i>Acacia disparrima</i>	Hickory Wattle	150	130, 90	218	68	6.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
175	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
176	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	21.0	8.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
177	<i>Corymbia citriodora</i>	Spotted Gum	380		380	119	23.0	10.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
178	<i>Corymbia citriodora</i>	Spotted Gum	470		470	148	25.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
179	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	22.0	10.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
180	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
181	<i>Corymbia citriodora</i>	Spotted Gum	430		430	135	25.0	14.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
182	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	430		430	135	26.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
183	<i>Acacia concurrens</i>	Black Wattle	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-	
184	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	570		570	179	17.0	7.0	6.8	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
185	<i>Corymbia citriodora</i>	Spotted Gum	210		210	66	12.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
186	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	24.0	12.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
187	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	640		640	201	26.0	15.0	7.7	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
188	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	-										

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
206	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
207	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
208	<i>Corymbia intermedia</i>	Pink Bloodwood	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
209	<i>Corymbia intermedia</i>	Pink Bloodwood	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
210	<i>Corymbia intermedia</i>	Pink Bloodwood	240		240	75	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
211	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	120		120	38	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
212	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	8.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
213	<i>Corymbia citriodora</i>	Spotted Gum	200		200	63	10.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
214	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
215	<i>Eucalyptus acmenoides</i>	White Mahogany	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
216	<i>Eucalyptus acmenoides</i>	White Mahogany	250		250	79	8.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
217	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	8.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
218	<i>Eucalyptus acmenoides</i>	White Mahogany	160		160	50	7.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
219	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	180		180	57	9.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
220	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
221	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	5.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
222	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
223	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	460		460	145	22.0	8.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
224	<i>Eucalyptus acmenoides</i>	White Mahogany	260	180	316	99	8.0	5.0	3.8	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
225	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
226	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
227	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
228	<i>Allocasuarina littoralis</i>	Black She-oak	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
229	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	540		540	170	18.0	8.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
230	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	4.0	3.0	2.6	1.8	Regular	-	-	Die-back	-	Lopped	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
231	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
232	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	8.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
233	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
234	<i>Corymbia citriodora</i>	Spotted Gum	270	190, 160, 130	389	122	12.0	7.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
235	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
236	<i>Corymbia intermedia</i>	Pink Bloodwood	120	90	150	47	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
237	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
238	<i>Corymbia intermedia</i>	Pink Bloodwood	140	120, 100, 90	228	72	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
239	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	210	90, 90</																													

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
258	<i>Corymbia citriodora</i>	Spotted Gum	530		530	167	23.0	12.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
259	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-
260	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
261	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
262	<i>Acacia concurrens</i>	Black Wattle	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
263	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
264	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	20.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
265	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	310		310	97	13.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
266	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
267	<i>Corymbia citriodora</i>	Spotted Gum	230		230	72	16.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
268	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
269	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
270	<i>Acacia disarrima</i>	Hickory Wattle	200		200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
271	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
272	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
273	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
274	<i>Acacia disarrima</i>	Hickory Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
275	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
276	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
277	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
278	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
279	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
280	<i>Acacia disarrima</i>	Hickory Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
281	<i>Acacia disarrima</i>	Hickory Wattle	110	100	149	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
282	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
283	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
284	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
285	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
286	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
287	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
288	<i>Acacia concurrens</i>	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
289	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
290	<i>Acacia concurrens</i>	Black Wattle	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
291	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
292	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
293	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	18.0	6.0	4.3	2.2	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
294	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
295	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
296	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
297	<i>Acacia concurrens</i>	Black Wattle	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
298	<i>Corymbia torelliana</i>	Cadaghi	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
299	<i>Corymbia torelliana</i>	Cadaghi	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
300	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
301	<i>Acacia concurrens</i>	Black Wattle	120		120	38	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
302	<i>Acacia concurrens</i>	Black Wattle	130	130	184	58	6.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
303	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
304	<i>Acacia concurrens</i>	Black Wattle	200	190	276	87	7.0	5.0	3.3	1.9	Regular	-	Thinning	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
305	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
306	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
307	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
308	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
309	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
310	Acacia concurrens	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
311	Acacia concurrens	Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
312	Corymbia citriodora	Spotted Gum	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
313	Allocasuarina littoralis	Black She-oak	100	90, 90	162	51	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
314	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
315	Allocasuarina littoralis	Black She-oak	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
316	Eucalyptus siderophloia	Northern Grey Ironbark	140		140	44	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
317	Corymbia torelliana	Cadaghi	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-	
318	Acacia concurrens	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
319	Lophostemon suaveolens	Swamp Box	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
320	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	3.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
321	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	4.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
322	Alphitonia excelsa	Soap Tree	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
323	Corymbia citriodora	Spotted Gum	160		160	50	11.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
324	Acacia dispartima	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
325	Corymbia intermedia	Pink Bloodwood	160		160	50	8.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
326	Corymbia citriodora	Spotted Gum	180		180	57	11.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
327	Eucalyptus fibrosa	Broad-leaved Red Ironbark	590		590	185	26.0	15.0	7.1	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
328	Eucalyptus fibrosa	Broad-leaved Red Ironbark	560		560	176	25.0	13.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
329	Lophostemon suaveolens	Swamp Box	180	100	206	65	8.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
330	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
331	Acacia concurrens	Black Wattle	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	Minor	Introduced	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
332	Acacia dispartima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
333	Acacia dispartima	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
334	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
335	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
336	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
337	Eucalyptus siderophloia	Northern Grey Ironbark	310		310	97	16.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
338	Eucalyptus acmenoides	White Mahogany	200		200	63	9.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
339	Eucalyptus acmenoides	White Mahogany	250		250	79	14.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
340	Eucalyptus propinqua	Small-fruited Grey Gum	200		200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
341	Eucalyptus propinqua	Small-fruited Grey Gum	430		430	135	24.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
342	Acacia dispartima	Hickory Wattle	160		160	50	6.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
343	Melaleuca saligna	Willow Bottlebrush	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
344	Allocasuarina littoralis	Black She-oak	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-																	

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
362	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	23.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
363	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	18.0	6.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
364	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
365	<i>Acacia disparima</i>	Hickory Wattle	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
366	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
367	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
368	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
369	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	710		710	223	27.0	10.0	8.5	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
370	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	17.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
371	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	290		290	91	17.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
372	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
373	<i>Corymbia intermedia</i>	Pink Bloodwood	270		270	85	18.0	9.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
374	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	28.0	13.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
375	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	27.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
376	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
377	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
378	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	350		350	110	18.0	8.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
379	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	400		400	126	16.0	8.0	4.8	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
380	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	18.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
381	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	11.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
382	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	10.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
383	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
384	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	9.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
385	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
386	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	11.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
387	<i>Lophostemon suaveolens</i>	Swamp Box	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
388	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
389	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	10.0	4.0	2.0	1.4	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
390	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
391	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	9.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
392	<i>Eucalyptus microcorys</i>	Tallowwood	200		200	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
393	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
394	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	14.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
395	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
396	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180	80	197	62	17.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
397	<i>Allocasuarina littoralis</i>																																

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value						Additional Details				
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
414	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	330	360	488	153	28.0	14.0	5.9	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
415	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
416	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
417	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	14.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
418	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	985		985	309	29.0	14.0	11.8	3.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-	
419	<i>Eucalyptus microcorys</i>	Tallowwood	400		400	126	21.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-	
420	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
421	DEAD/STAG		280		280	88	14.0		3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Retain	Dead Tree (stag)	-	
422	<i>Allocasuarina littoralis</i>	Black She-oak	280		280	88	18.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-	
423	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
424	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
425	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
426	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	330		330	104	21.0	11.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
427	DEAD/STAG		380		380	119	19.0	7.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Dead Tree (stag)	-	
428	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	400		400	126	25.0	12.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
429	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	890		890	280	29.0	14.0	10.7	3.2	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
430	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	9.0	3.7	2.0	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
431	<i>Eucalyptus microcorys</i>	Tallowwood	420		420	132	24.0	9.0	5.0	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
432	<i>Acacia disarrima</i>	Hickory Wattle	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
433	<i>Eucalyptus microcorys</i>	Tallowwood	510		510	160	23.0	11.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-	
434	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
435	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	18.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
436	<i>Melaleuca saligna</i>	Willow Bottlebrush	120	130	177	56	10.0	5.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
437	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	9.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
438	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	290		290	91	21.0	11.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
439	<i>Corymbia citriodora</i>	Spotted Gum	510	100	520	163	26.0	10.0	6.2	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
440	<i>Corymbia citriodora</i>	Spotted Gum	380	140	405	127	23.0	9.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
441	<i>Acacia disarrima</i>	Hickory Wattle	100	90	135	42	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
442	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
443	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
444	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
445	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
446	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
447	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	14.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
448	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180		180	57	14.0	4.0	2.2	1.6	Regular	-	-																			

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
466	Corymbia citriodora	Spotted Gum	560		560	176	28.0	14.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
467	Corymbia citriodora	Spotted Gum	530		530	167	23.0	13.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
468	Eucalyptus fibrosa	Broad-leaved Red Ironbark	260		260	82	17.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
469	Acacia disarrima	Hickory Wattle	220		220	69	15.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
470	Corymbia citriodora	Spotted Gum	390		390	123	25.0	13.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
471	Corymbia citriodora	Spotted Gum	380		380	119	21.0	11.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
472	Corymbia citriodora	Spotted Gum	380		380	119	23.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
473	Eucalyptus fibrosa	Broad-leaved Red Ironbark	430		430	135	21.0	11.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
474	Eucalyptus fibrosa	Broad-leaved Red Ironbark	330		330	104	16.0	7.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
475	Eucalyptus carnea	Broad-leaved White Mahogany	350		350	110	17.0	8.0	4.2	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
476	Corymbia citriodora	Spotted Gum	470		470	148	28.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
477	Eucalyptus fibrosa	Broad-leaved Red Ironbark	240		240	75	16.0	7.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
478	Corymbia intermedia	Pink Bloodwood	150		150	47	15.0	6.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
479	Eucalyptus siderophloia	Northern Grey Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
480	Acacia disarrima	Hickory Wattle	360		360	113	15.0	9.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
481	Eucalyptus propinqua	Small-fruited Grey Gum	190		190	60	15.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
482	Eucalyptus propinqua	Small-fruited Grey Gum	170		170	53	14.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
483	Eucalyptus microcorys	Tallowwood	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
484	Lophostemon suaveolens	Swamp Box	140		140	44	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
485	Eucalyptus carnea	Broad-leaved White Mahogany	170	100	197	62	15.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
486	Eucalyptus propinqua	Small-fruited Grey Gum	330		330	104	15.0	6.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
487	Eucalyptus propinqua	Small-fruited Grey Gum	130		130	41	15.0	7.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
488	Eucalyptus propinqua	Small-fruited Grey Gum	160		160	50	13.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
489	Acacia disarrima	Hickory Wattle	230		230	72	14.0	6.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
490	Eucalyptus propinqua	Small-fruited Grey Gum	200		200	63	14.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
491	Eucalyptus propinqua	Small-fruited Grey Gum	110		110	35	9.0	4.0	2.0	1.3	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
492	Eucalyptus propinqua	Small-fruited Grey Gum	130		130	41	14.0	6.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
493	Eucalyptus propinqua	Small-fruited Grey Gum	420		420	132	28.0	14.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
494	Eucalyptus carnea	Broad-leaved White Mahogany	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
495	Corymbia citriodora	Spotted Gum	260		260	82	16.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
496	Acacia disarrima	Hickory Wattle	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
497	Eucalyptus fibrosa	Broad-leaved Red Ironbark	120		120	38	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
498	Acacia disarrima	Hickory Wattle	140		140	44	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
499	Corymbia citriodora	Spotted Gum	230		230	72	18.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-														

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
518	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	260		260	82	18.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
519	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	17.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
520	<i>Corymbia intermedia</i>	Pink Bloodwood	170	130, 120	245	77	15.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
521	<i>Corymbia torelliana</i>	Cadaghi	120		120	38	12.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
522	<i>Melaleuca saligna</i>	Willow Bottlebrush	130		130	41	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
523	<i>Corymbia intermedia</i>	Pink Bloodwood	180	100, 120	238	75	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
524	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
525	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	450		450	141	23.0	13.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
526	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	17.0	6.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
527	<i>Corymbia citriodora</i>	Spotted Gum	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
528	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	80	100, 60	141	44	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Native Tree	-
529	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
530	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
531	<i>Eucalyptus tereticornis</i>	Forest Red Gum	210		210	66	16.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
532	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	12.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
533	<i>Acacia disparrima</i>	Hickory Wattle	230		230	72	15.0	8.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Native Tree	-
534	<i>Acacia disparrima</i>	Hickory Wattle	230	200	305	96	14.0	9.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Native Tree	-
535	<i>Corymbia citriodora</i>	Spotted Gum	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
536	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	10.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
537	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
538	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	19.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
539	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
540	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	9.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
541	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	23.0	15.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
542	<i>Acacia disparrima</i>	Hickory Wattle	150		150	47	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
543	<i>Corymbia intermedia</i>	Pink Bloodwood	350		350	110	21.0	11.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
544	<i>Allocasuarina littoralis</i>	Black She-oak	160		160	50	9.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
545	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
546	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	14.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Native Tree	-
547	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	16.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
548	<i>Corymbia citriodora</i>	Spotted Gum	110	120	163	51	16.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
549	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	23.0	14.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
550	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	24.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-									

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
570	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	110		110	35	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
571	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
572	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
573	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
574	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	120		120	38	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
575	<i>Corymbia intermedia</i>	Pink Bloodwood	140	130, 60	200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
576	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
577	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
578	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	120, 90, 80	197	62	14.0	1.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
579	<i>Melaleuca saligna</i>	Willow Bottlebrush	190		190	60	11.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
580	<i>Corymbia intermedia</i>	Pink Bloodwood	120	120	170	53	15.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
581	<i>Corymbia intermedia</i>	Pink Bloodwood	160	200	256	80	17.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
582	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	170	170	240	76	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
583	<i>Acacia disparima</i>	Hickory Wattle	120	160	240	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
584	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	17.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
585	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	14.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
586	<i>Corymbia intermedia</i>	Pink Bloodwood	170		170	53	13.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
587	<i>Corymbia intermedia</i>	Pink Bloodwood	100	80	128	40	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
588	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
589	<i>Corymbia intermedia</i>	Pink Bloodwood	160		160	50	15.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
590	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	17.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
591	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	11.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
592	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	21.0	9.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
593	<i>Lophostemon suaveolens</i>	Swamp Box	150		150	47	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
594	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180	130	222	70	15.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
595	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	90	135	42	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Regular	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
596	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
597	<i>Melaleuca saligna</i>	Willow Bottlebrush	110		110	35	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
598	<i>Corymbia intermedia</i>	Pink Bloodwood	200	210	290	91	16.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
599	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	16.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
600	<i>Eucalyptus camea</i>	Broad-leaved White Mahogany	120	250	277	87	14.0	8.0	3.3	1.9	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
601	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	200		200	63	17.0	8.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
602	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	210		210	66	18.0	9.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
603	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
604	<i>Corymbia intermedia</i>	Pink Bloodwood	250	210	326	103	15.0	7.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
605	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	240		240	75	17.0	8.0	2.9	1.8	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
606	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
607	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	160		160	50	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
608	<i>Lophostemon suaveolens</i>	Swamp Box	160		160	50	14.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
609	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
610	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

Appendix B

Koala Management Plan



Koala Management Plan

SDAP v3.0 State Code 25 (Qld)

54 George Alexander Way, Coomera, Queensland 4209
Prepared for Coomera GA Pty Ltd

3 February 2023

Job 11241

Document Control

Document: State Code 25 (Qld) Koala Management Plan – 54 George Alexander Way, Coomera, prepared by Saunders Havill Group for Coomera GA Pty Ltd, dated 3 February 2023.

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Acronyms and Abbreviations

Legislation, policies and guidelines

Draft Code	<i>Draft Code of Practice for the Welfare of Animals Affected by Land-clearing and Other Habitat Impacts</i>
EMP Guidelines	<i>Environmental Management Plan Guidelines, prepared by the Commonwealth of Australia, 2014</i>
VMA	<i>Vegetation Management Act 1999 (Qld)</i>

Government departments

CGC	City of Gold Coast
DES	Department of Environment and Science (Qld)
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning (Qld)

General terms

CPP	<i>Gold Coast City Plan 2016 City Plan Policy – Ecological site assessments</i>
DBH	Diameter at Breast Height
ha	hectares
km	kilometres
KMP	Koala Management Plan
mm	millimetres
PO	Performance Outcome
RE	Regional Ecosystems
SAT	Spot Assessment Technique
SDAP	State Development Assessment Provisions
SHG	Saunders Havill Group
VCFMP	Vegetation Clearing and Fauna Management Plan
WHIMP	Wildlife Habitat Impact Mitigation Plan
WPMP	Wildlife Protection and Management Plan

1. Introduction

Saunders Havill Group (SHG) have been engaged by Coomera GA Pty Ltd to prepare a Koala Management Plan (KMP) to demonstrate compliance with the State Development Assessment Provisions (SDAP) *State Code 25: Development in South East Queensland Koala habitat areas version 3* (State Code 25), implemented by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). Specifically, this KMP is required to demonstrate compliance with Performance Outcome 10 (PO10) within the State Code 25, to demonstrate the development within a mapped KHA is undertaken in a way that prevents the risk of injury or death of Koalas.

This KMP has been prepared in accordance with the document *Environmental Management Plan Guidelines, prepared by the Commonwealth of Australia, 2014* (EMP Guidelines). The purpose of this KMP is to provide a single explanatory management document for the inclusion in the design, construction and operation of the development. The objectives of this KMP are as follows:

- 1) To highlight the existing flora, fauna and ecosystem values on the subject site and in surrounding areas;
- 2) Describe key results from survey data, including Koala occurrence and the availability and quality of habitat;
- 3) Identify key direct and indirect impacts on Koalas and describe proposed avoidance and mitigation measures; and,
- 4) List out actions and legislative requirements to be implemented to manage construction impacts.

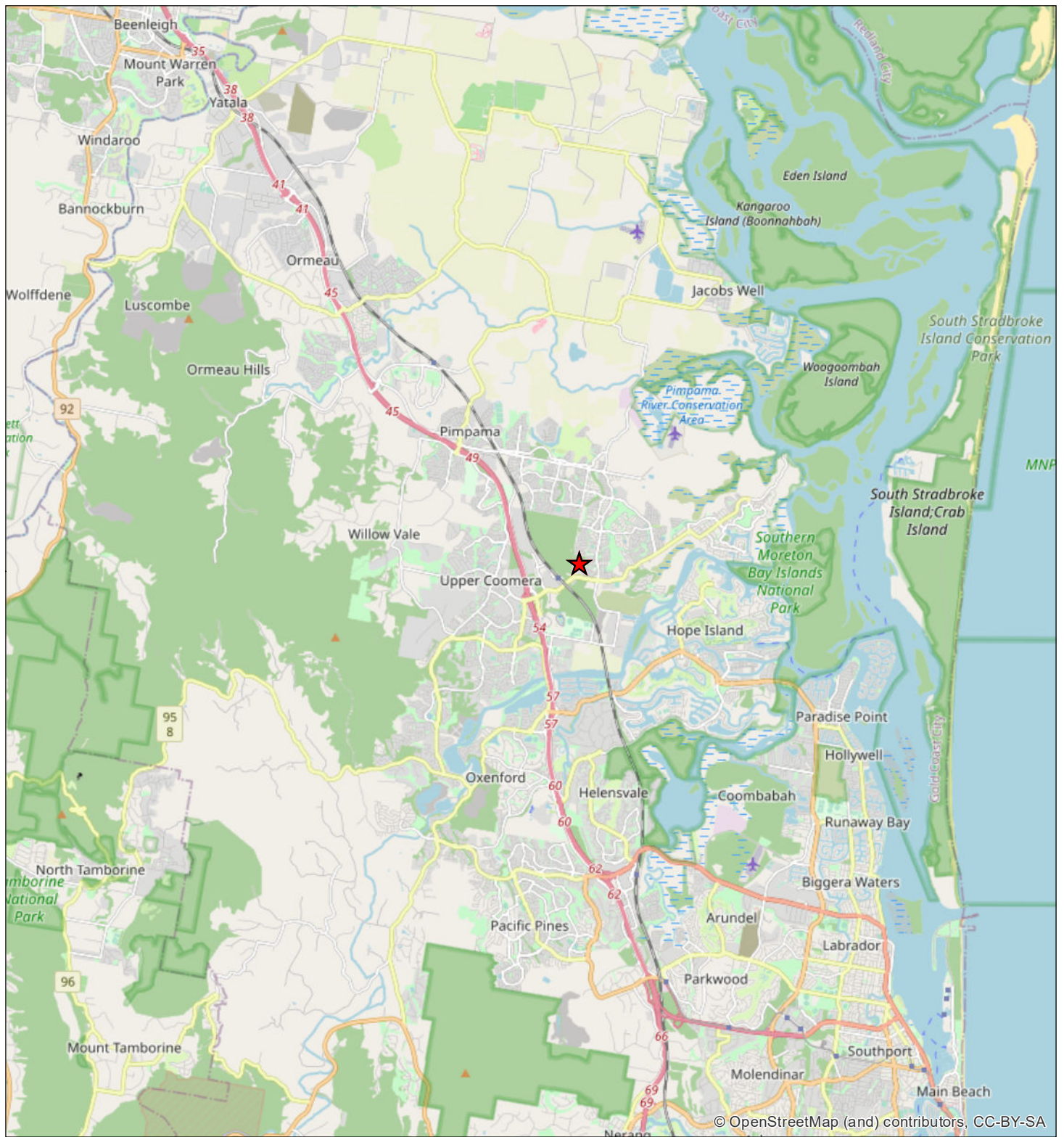
2. Project description

The subject site is located at 54 George Alexander Way, Coomera, Queensland, and is described as Lot 96 on RP187418. Contextually, the site comprises approximately 3.01 hectares (ha) located within the suburb of Coomera.

Parts of the site have been historically cleared and modified for previous residential purposes (refer **Figure 1** for Site Context and **Figure 2** for Site Aerial). Currently, the site is surrounded by residential developments to the east, a new residential development under construction to the north and a larger vegetated lot to the south. Vegetation exists to the west; however, the site is bound by George Alexander Way to the west. The wider landscape is characterised by significant urban development with a mix of residential, commercial, and retail land uses and is bisected by major infrastructure including the Gold Coast Railway Line and the Pacific Motorway.

The proposed development is to reconfigure one (1) lot into twenty-four (24) lots including internal access roads and a detention basin (refer **Plan 1**). The development footprint is located in the eastern portion of the site within the area zoned as medium density residential under the *Gold Coast City Plan 2015*. The western portion of the site is zoned as high density residential. Proposed works are considered to meet planning intent of the City Plan. Furthermore, the proposal is consistent with surrounding land uses, being residential uses located to the east and residential development under construction immediately north of the subject site. The project has been designed to link to the adjoining northern development as it will be accessible via access roads to the north.

The site is not located within a KPA, however, approximately 2 ha of KHA is mapped across the site (refer **Figure 3**). The subject site is located at the edge of a development and represents a logical area to progress development within the rapidly urbanising Coomera urban centre as it will reduce impacts such as fragmentation of habitat values.



Legend

★ Site Location

Figure 1
Site Context

Coomera GA
Pty Ltd

File ref. 11241 E Figure 1 Site Context A
Date 2/02/2023
Project George Alexander Way, Coomera

SH saunders
havill
group

0 1 2 3 4 5 km

Scale (A4): 1:150,000 [GDA 2020 MGA Z56]



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Legend

- Site DCDB
- Qld DCDB

Figure 2

Site Aerial

Coomera GA
Pty Ltd

File ref. 11241 E Figure 2 Site Aerial A
Date 2/02/2023
Project George Alexander Way, Coomera

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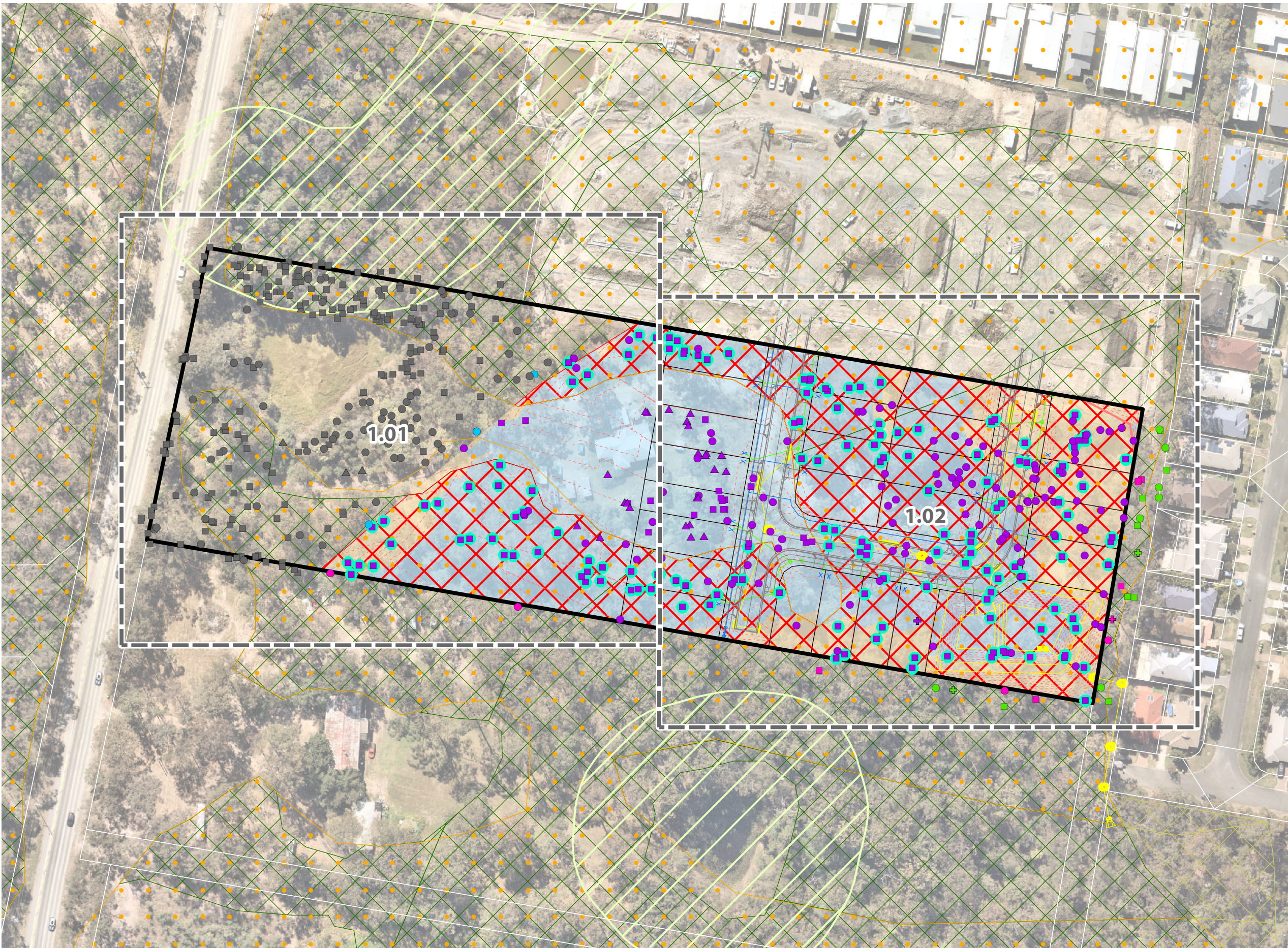
0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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1.00 Development Assessment



Notes:
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Legend

- Site DCDB
- Qld DCDB
- State and Local Overlays**
 - Core Remnant Koala Habitat Areas
 - Core Regrowth Koala Habitat Areas
 - Koala Habitat Impacted [1.56 ha]
 - Gold Coast City Council Wetland and Waterways Buffer
 - Gold Coast City Council Medium Priority Vegetation

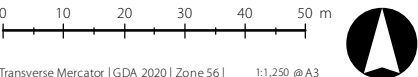
Engineering Detail

- Proposed Lot Boundaries
- Proposed Road Design
- Proposed Sewer Design
- Proposed Stormwater Design
- Proposed Water Design
- Design Contours
- Earthworks (Extent of Cut)
- Earthworks (Extent of Fill)

GPS Tree Plot

- Tree to retain
- Tree retention subject to arborist assessment
- Tree retention subject to arborist assessment, and neighbour consent if removal is required
- Tree to remove
- Tree not subject to this application
- Non-juvenile Koala habitat tree impacted within KHA [150]
- Non-juvenile Koala Habitat Tree
- Native Tree
- Dead/Stag Tree
- Introduced Species/Environmental Weed

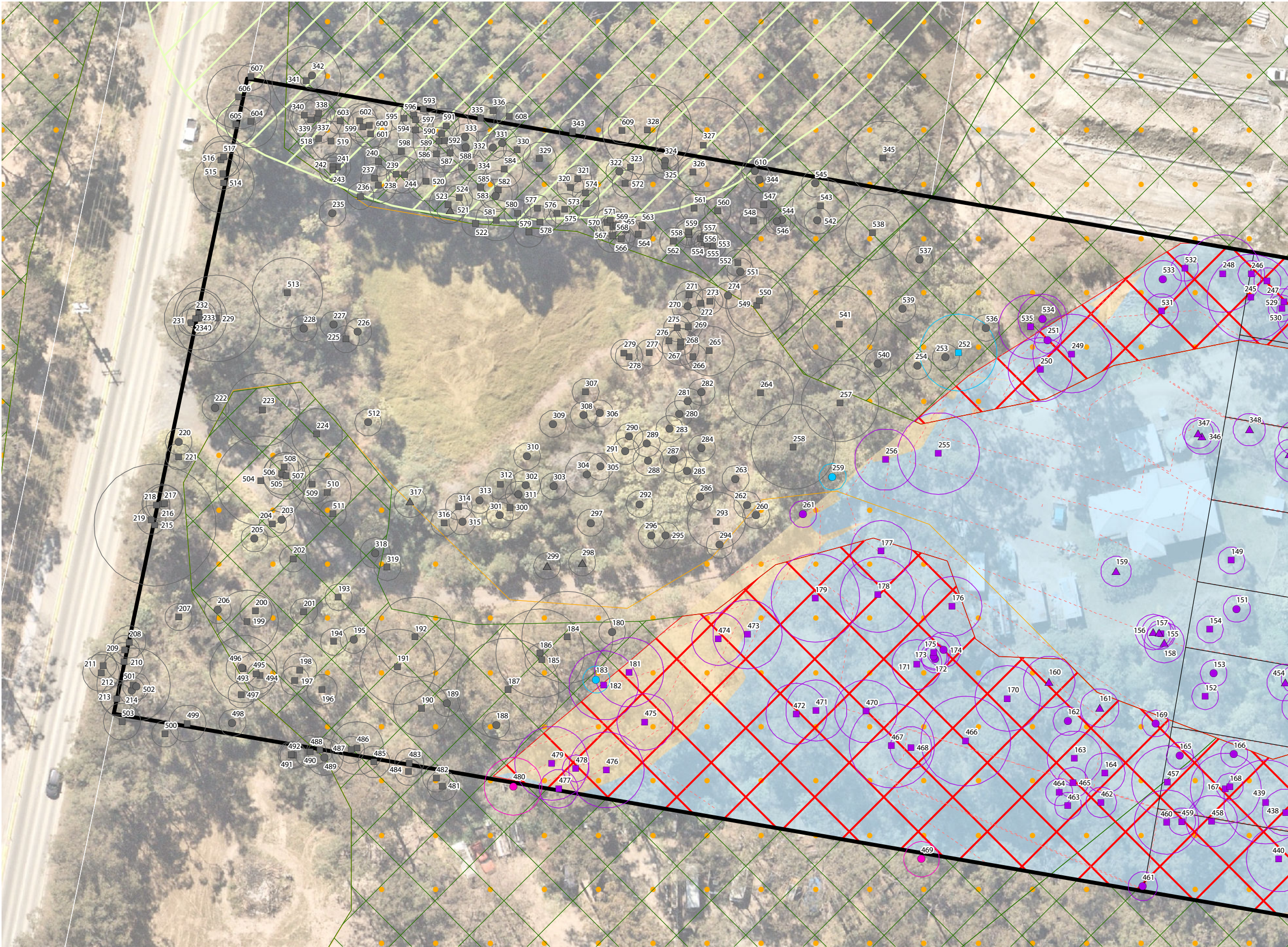
Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



Address / RPD: 96/RP187418

2/02/2023 | 11241 E 01 Development Assessment A

1.01 Development Assessment



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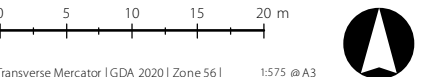
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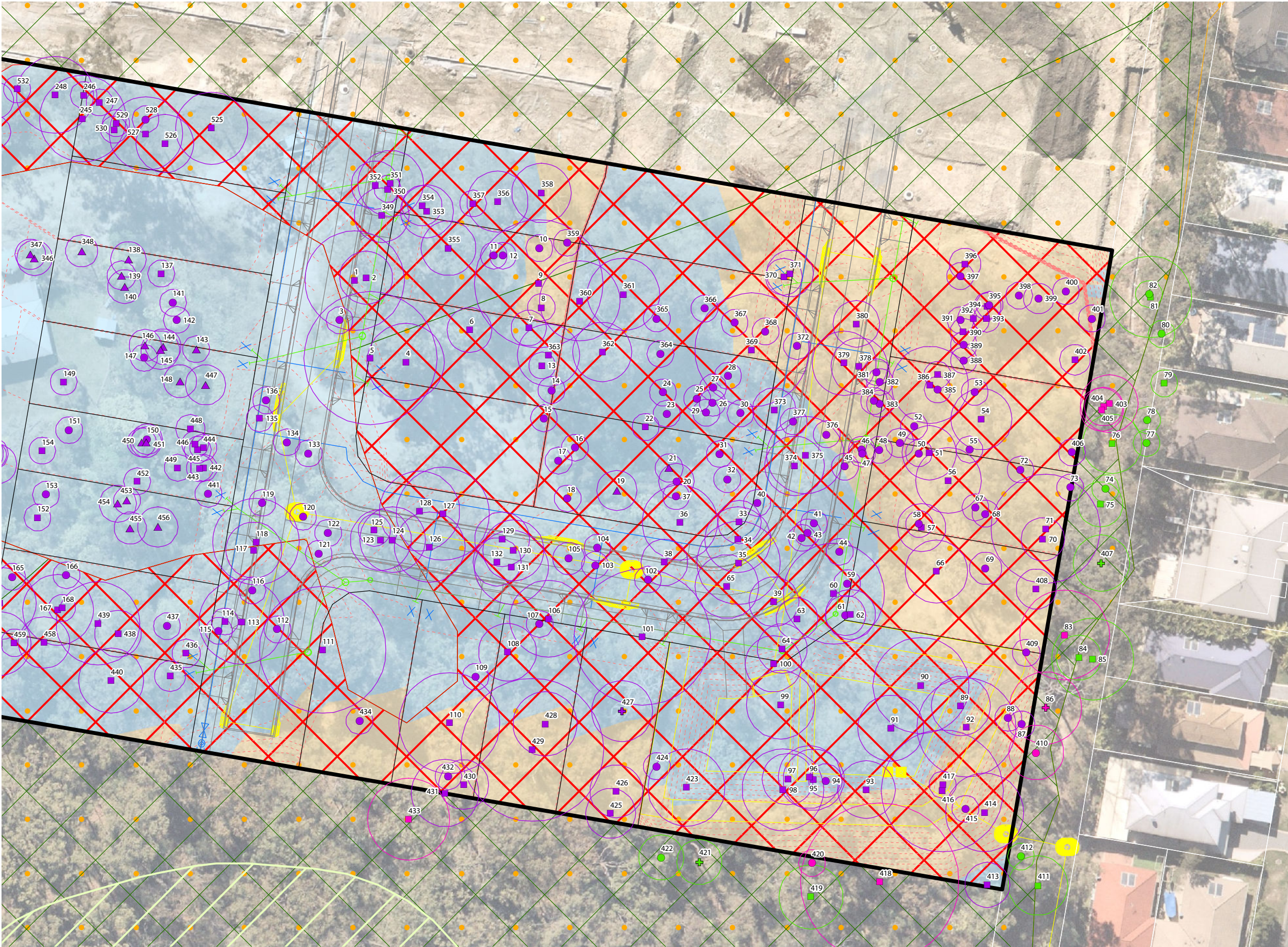
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Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



1.02 Development Assessment



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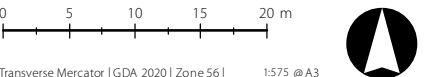
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Issue	Date	Description	Drawn	Checked
A	2/02/2023	Preliminary	TF	AW



Address / RPD: 96/RP187418

2/02/2023 | 11241 E 01_1 Development Assessment A

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
1	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	620		620	195	28.0	16.0	7.4	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
2	<i>Corymbia intermedia</i>	Pink Bloodwood	330		330	104	6.0	3.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
3	<i>Acacia concurrens</i>	Black Wattle	110	90	142	45	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
4	<i>Eucalyptus microcorys</i>	Tallowwood	340	340	481	151	16.0	7.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
5	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	830		830	261	27.0	14.0	10.0	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
6	<i>Corymbia intermedia</i>	Pink Bloodwood	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
7	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	220		220	69	15.0	6.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
8	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	170		170	53	7.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
9	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	800		800	251	28.0	16.0	9.6	3.0	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-	
10	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
11	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
12	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
13	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
14	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
15	<i>Acacia concurrens</i>	Black Wattle	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
16	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
17	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
18	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
19	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	6.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
20	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
21	<i>Schefflera actinophylla</i>	Umbrella Tree	150	90	175	55	7.0	3.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-	
22	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	5.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Introduced	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
23	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
24	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
25	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
26	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
27	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
28	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	7.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
29	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
30	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
31	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
32	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
33	<i>Eucalyptus microcorys</i>	Tallowwood	270		270	85	14.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
34	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	18.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
35	<i>Corymbia citriodora</i>	Spotted Gum	520		520	163	22.0	12.0	6.2	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
36	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	20.0	10.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
37	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
38	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	14.0	7.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
39	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	5.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
40	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
41	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical										

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
50	<i>Acacia concurrens</i>	Black Wattle	130		130	41	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
51	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	340		340	107	21.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
52	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
53	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
54	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	380		380	119	21.0	8.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
55	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
56	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	23.0	11.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
57	<i>Corymbia intermedia</i>	Pink Bloodwood	300		300	94	16.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
58	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
59	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
60	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	630		630	198	22.0	12.0	7.6	2.7	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
61	<i>Acacia concurrens</i>	Black Wattle	250		250	79	6.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
62	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	8.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
63	<i>Corymbia citriodora</i>	Spotted Gum	260		260	82	18.0	7.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
64	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
65	<i>Corymbia citriodora</i>	Spotted Gum	300	260	397	125	20.0	8.0	4.8	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
66	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	390		390	123	23.0	11.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
67	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
68	<i>Acacia disparrima</i>	Hickory Wattle	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
69	<i>Acacia disparrima</i>	Hickory Wattle	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
70	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	270		270	85	12.0	6.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
71	<i>Corymbia citriodora</i>	Spotted Gum	680		680	214	24.0	14.0	8.2	2.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
72	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
73	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
74	<i>Acacia concurrens</i>	Black Wattle	170		170	53	6.0	4.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
75	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	12.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
76	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	370		370	116	20.0	10.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
77	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
78	<i>Acacia concurrens</i>	Black Wattle	120	110	163	51	4.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
79	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
80	<i>Acacia concurrens</i>	Black Wattle	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
81	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	21.0	10.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
82	<i>Acacia disparrima</i>	Hickory Wattle	140		140	44	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
83	<i>Corymbia citriodora</i>	Spotted Gum	560		560	176	23.0	10.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-
84	<i>Corymbia citriodora</i>	Spotted Gum	280		280	88	17.0	7.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
85	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	510		510	160	25.0	12.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
86	DEAD/STAG		450		450	141	24.0	12.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Dead Tree (stag)	-
87	<i>Acacia disparrima</i>	Hickory Wattle	140	90	166	52	5.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
88	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
89	<i>Corymbia citriodora</i>	Spotted Gum	370		370	116	18.0	7.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
90	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	600		600	188	26.0	14.0	7.2	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
91	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	21.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
92	<i>Eucalyptus microcorys</i>	Tallowwood	450	420	616	193	20.0	14.0	7.4	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
93	<i>Corymbia citriodora</i>	Spotted Gum	360		360	113	23.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
94	<i>Allocasuarina littoralis</i>	Black She-oak	210		210	66	5.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
95	<i>Eucalyptus microcorys</i>	Tallowwood	380		380	119	18.0	9.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
96	<i>Corymbia citriodora</i>	Spotted Gum	390		390	123	21.0	12.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
97	<i>Corymbia citriodora</i>	Spotted Gum	320		320	101	21.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
98	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	510		510	160	25.0	15.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
99	<i>Corymbia citriodora</i>	Spotted Gum	330	270	426	134	16.0	6.0	5.1	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
100	<i>Corymbia citriodora</i>	Spotted Gum	350		350	110	20.0	10.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
101	<i>Corymbia citriodora</i>	Spotted Gum	850		850	267	23.0	12.0	10.2	3.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-

Specimen Details											Canopy Condition Details						Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
102	Acacia melanoxylon	Australian Blackwood	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
103	Acacia disparrima	Hickory Wattle	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
104	Acacia concurrens	Black Wattle	120		120	38	5.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
105	Acacia disparrima	Hickory Wattle	200		200	63	5.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
106	Eucalyptus microcorys	Tallowwood	480		480	151	22.0	10.0	5.8	2.4	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
107	Acacia disparrima	Hickory Wattle	150		150	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
108	Corymbia citriodora	Spotted Gum	360		360	113	20.0	10.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
109	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
110	Eucalyptus microcorys	Tallowwood	630		630	198	24.0	14.0	7.6	2.7	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
111	Eucalyptus fibrosa	Broad-leaved Red Ironbark	790		790	248	23.0	15.0	9.5	3.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
112	Allocasuarina littoralis	Black She-oak	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
113	Eucalyptus fibrosa	Broad-leaved Red Ironbark	530		530	167	18.0	7.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
114	Corymbia intermedia	Pink Bloodwood	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
115	Acacia disparrima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
116	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
117	Corymbia intermedia	Pink Bloodwood	350		350	110	20.0	12.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
118	Eucalyptus microcorys	Tallowwood	540		540	170	18.0	10.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
119	Acacia concurrens	Black Wattle	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
120	Acacia concurrens	Black Wattle	110		110	35	4.0	3.0	2.0	1.3		-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	Remove	Native Tree	-
121	Acacia concurrens	Black Wattle	150		150	47	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
122	Acacia concurrens	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
123	Eucalyptus microcorys	Tallowwood	380		380	119	14.0	6.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
124	Eucalyptus microcorys	Tallowwood	410		410	129	15.0	6.0	4.9	2.3	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
125	Corymbia citriodora	Spotted Gum	200		200	63	8.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
126	Eucalyptus microcorys	Tallowwood	330	290	439	138	18.0	7.0	5.3	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
127	Eucalyptus fibrosa	Broad-leaved Red Ironbark	580		580	182	25.0	12.0	7.0	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
128	Eucalyptus microcorys	Tallowwood	500		500	157	18.0	10.0	6.0	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	Old	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
129	Corymbia citriodora	Spotted Gum	340		340	107	16.0	8.0	4.1	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
130	Corymbia intermedia	Pink Bloodwood	380		380	119	22.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
131	Eucalyptus fibrosa	Broad-leaved Red Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
132	Eucalyptus fibrosa	Broad-leaved Red Ironbark	300		300	94	15.0	7.0	3.6	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
133	Acacia concurrens	Black Wattle	100	100	141	44	4.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
134	Acacia concurrens	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
135	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
136	Acacia melanoxylon	Australian Blackwood	150		150	47	5.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
137	Corymbia citriodora	Spotted Gum	130		130	41	5.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
138	Syagrus romanzoffiana	Cocos Palm	220		220	69	6.0	3.0	2.6	1.8	Regular	-	-	-	-	-	Typical														

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
154	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
155	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
156	<i>Syagrus romanzoffiana</i>	Cocos Palm	220		220	69	7.0	4.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
157	<i>Syagrus romanzoffiana</i>	Cocos Palm	210		210	66	7.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
158	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	8.0	5.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
159	<i>Solanum mauritianum</i>	Wild Tobacco	130	100, 90	187	59	4.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
160	<i>Corymbia torelliana</i>	Cadaghi	320		320	101	8.0	7.0	3.8	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
161	<i>Corymbia torelliana</i>	Cadaghi	240		240	75	7.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
162	<i>Acacia concurrens</i>	Black Wattle	180		180	57	7.0	4.0	2.2	1.6	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
163	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	18.0	10.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
164	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	16.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
165	<i>Acacia concurrens</i>	Black Wattle	120		120	38	4.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
166	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
167	<i>Eucalyptus camea</i>	Broad-leaved White Mahogany	440		440	138	16.0	6.0	5.3	2.3	Irregular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
168	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
169	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
170	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	16.0	7.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Remove	Non-juvenile Koala Habitat Tree	-
171	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
172	<i>Acacia disparrima</i>	Hickory Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
173	<i>Acacia disparrima</i>	Hickory Wattle	120	100	156	49	5.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
174	<i>Acacia disparrima</i>	Hickory Wattle	150	130, 90	218	68	6.0	4.0	2.6	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
175	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
176	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	21.0	8.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
177	<i>Corymbia citriodora</i>	Spotted Gum	380		380	119	23.0	10.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
178	<i>Corymbia citriodora</i>	Spotted Gum	470		470	148	25.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
179	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	22.0	10.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
180	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
181	<i>Corymbia citriodora</i>	Spotted Gum	430		430	135	25.0	14.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
182	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	430		430	135	26.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
183	<i>Acacia concurrens</i>	Black Wattle	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-
184	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	570		570	179	17.0	7.0	6.8	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
185	<i>Corymbia citriodora</i>	Spotted Gum	210		210	66	12.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
186	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	550		550	173	24.0	12.0	6.6	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
187	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	640		640	201	26.0	15.0	7.7	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
188	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
189	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	Trunk Dmg.	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
190	<i>Eucalyptus acmenoides</i>	White Mahogany	350		350	110	15.0	6.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
191	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	21.0	10.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
192	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	500		500	157	25.0	14.0	6.0	2.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
193	<i>Corymbia citriodora</i>	Spotted Gum	160		160	50	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
194	<i>Eucalyptus microcorys</i>	Tallowwood	100	90, 90	162	51	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
195	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
196	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	190		190	60	8.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
197	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
198	<i>Eucalyptus acmenoides</i>	White Mahogany	210		210	66	11.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
199	<i>Eucalyptus acmenoides</i>	White Mahogany	270	230, 160	389	122	12.0	6.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
200	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	200		200	63	8.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
201	<i>Corymbia intermedia</i>	Pink Bloodwood	120		120	38	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
202	<i>Lophostemon suaveolens</i>	Swamp Box	110	90	142	45	5.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
203	<i>Acacia concurrens</i>	Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
204	<i>Eucalyptus acmenoides</i>	White Mahogany	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
205	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
206	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
207	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
208	<i>Corymbia intermedia</i>	Pink Bloodwood	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
209	<i>Corymbia intermedia</i>	Pink Bloodwood	180		180	57	7.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
210	<i>Corymbia intermedia</i>	Pink Bloodwood	240		240	75	7.0	5.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
211	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	120		120	38	6.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
212	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	8.0	5.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
213	<i>Corymbia citriodora</i>	Spotted Gum	200		200	63	10.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
214	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
215	<i>Eucalyptus acmenoides</i>	White Mahogany	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
216	<i>Eucalyptus acmenoides</i>	White Mahogany	250		250	79	8.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
217	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	8.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
218	<i>Eucalyptus acmenoides</i>	White Mahogany	160		160	50	7.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
219	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	180		180	57	9.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	Termite nest	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
220	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
221	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	5.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
222	<i>Acacia concurrens</i>	Black Wattle	100		100	31	4.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
223	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	460		460	145	22.0	8.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	Old	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
224	<i>Eucalyptus acmenoides</i>	White Mahogany	260	180	316	99	8.0	5.0	3.8	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
225	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
226	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	4.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
227	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
228	<i>Allocasuarina littoralis</i>	Black She-oak	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
229	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	540		540	170	18.0	8.0	6.5	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
230	<i>Allocasuarina littoralis</i>	Black She-oak	220		220	69	4.0	3.0	2.6	1.8	Regular	-	-	Die-back	-	Lopped	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
231	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
232	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	280		280	88	8.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
233	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	140		140	44	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
234	<i>Corymbia citriodora</i>	Spotted Gum	270	190, 160, 130	389	122	12.0	7.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
235	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-		
236	<i>Corymbia intermedia</i>	Pink Bloodwood	120	90	150	47	7.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
237	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180		180	57	8.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
238	<i>Corymbia intermedia</i>	Pink Bloodwood	140	120, 100, 90	228	72	7.0	3.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-		
239	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	210	90, 90</																													

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
258	<i>Corymbia citriodora</i>	Spotted Gum	530		530	167	23.0	12.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
259	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist	Native Tree	-
260	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
261	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
262	<i>Acacia concurrens</i>	Black Wattle	100	90	135	42	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
263	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
264	<i>Corymbia citriodora</i>	Spotted Gum	410		410	129	20.0	10.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
265	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	310		310	97	13.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
266	<i>Corymbia citriodora</i>	Spotted Gum	110		110	35	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
267	<i>Corymbia citriodora</i>	Spotted Gum	230		230	72	16.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
268	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
269	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
270	<i>Acacia disarrima</i>	Hickory Wattle	200		200	63	7.0	3.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
271	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
272	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
273	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
274	<i>Acacia disarrima</i>	Hickory Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
275	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
276	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
277	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	8.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
278	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	7.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
279	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
280	<i>Acacia disarrima</i>	Hickory Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
281	<i>Acacia disarrima</i>	Hickory Wattle	110	100	149	47	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
282	<i>Acacia concurrens</i>	Black Wattle	130		130	41	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
283	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
284	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	5.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
285	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
286	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
287	<i>Acacia concurrens</i>	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
288	<i>Acacia concurrens</i>	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
289	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
290	<i>Acacia concurrens</i>	Black Wattle	130		130	41	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
291	<i>Acacia concurrens</i>	Black Wattle	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
292	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
293	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	18.0	6.0	4.3	2.2	Regular	-	-	Die-back	-	-	Poor	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
294	<i>Acacia concurrens</i>	Black Wattle	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
295	<i>Acacia concurrens</i>	Black Wattle	160		160	50	5.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
296	<i>Acacia concurrens</i>	Black Wattle	110		110	35	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
297	<i>Acacia concurrens</i>	Black Wattle	150		150	47	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
298	<i>Corymbia torelliana</i>	Cadaghi	100		100	31	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
299	<i>Corymbia torelliana</i>	Cadaghi	110		110	35	4.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
300	<i>Corymbia citriodora</i>	Spotted Gum	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
301	<i>Acacia concurrens</i>	Black Wattle	120		120	38	7.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
302	<i>Acacia concurrens</i>	Black Wattle	130	130	184	58	6.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
303	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	6.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
304	<i>Acacia concurrens</i>	Black Wattle	200	190	276	87	7.0	5.0	3.3	1.9	Regular	-	Thinning	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
305	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
306	<i>Acacia concurrens</i>	Black Wattle	160		160	50	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
307	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
308	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
309	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

Specimen Details											Canopy Condition Details							Trunk Condition Details					Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
310	Acacia concurrens	Black Wattle	100		100	31	6.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
311	Acacia concurrens	Black Wattle	110		110	35	6.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
312	Corymbia citriodora	Spotted Gum	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
313	Allocasuarina littoralis	Black She-oak	100	90, 90	162	51	6.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
314	Eucalyptus fibrosa	Broad-leaved Red Ironbark	100		100	31	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
315	Allocasuarina littoralis	Black She-oak	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
316	Eucalyptus siderophloia	Northern Grey Ironbark	140		140	44	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
317	Corymbia torelliana	Cadaghi	200		200	63	7.0	4.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-	
318	Acacia concurrens	Black Wattle	190		190	60	7.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
319	Lophostemon suaveolens	Swamp Box	110		110	35	5.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
320	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	3.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
321	Eucalyptus fibrosa	Broad-leaved Red Ironbark	140		140	44	4.0	2.0	2.0	1.4	Regular	-	-	-	-	Lopped	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
322	Alphitonia excelsa	Soap Tree	130		130	41	6.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
323	Corymbia citriodora	Spotted Gum	160		160	50	11.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
324	Acacia disarrima	Hickory Wattle	130		130	41	7.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
325	Corymbia intermedia	Pink Bloodwood	160		160	50	8.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
326	Corymbia citriodora	Spotted Gum	180		180	57	11.0	4.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
327	Eucalyptus fibrosa	Broad-leaved Red Ironbark	590		590	185	26.0	15.0	7.1	2.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
328	Eucalyptus fibrosa	Broad-leaved Red Ironbark	560		560	176	25.0	13.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
329	Lophostemon suaveolens	Swamp Box	180	100	206	65	8.0	4.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
330	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
331	Acacia concurrens	Black Wattle	190		190	60	8.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	Minor	Introduced	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
332	Acacia disarrima	Hickory Wattle	100		100	31	5.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
333	Acacia disarrima	Hickory Wattle	110		110	35	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
334	Lophostemon suaveolens	Swamp Box	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
335	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
336	Lophostemon suaveolens	Swamp Box	120		120	38	7.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
337	Eucalyptus siderophloia	Northern Grey Ironbark	310		310	97	16.0	6.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
338	Eucalyptus acmenoides	White Mahogany	200		200	63	9.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
339	Eucalyptus acmenoides	White Mahogany	250		250	79	14.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
340	Eucalyptus propinqua	Small-fruited Grey Gum	200		200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
341	Eucalyptus propinqua	Small-fruited Grey Gum	430		430	135	24.0	12.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
342	Acacia disarrima	Hickory Wattle	160		160	50	6.0	4.0	2.0	1.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
343	Melaleuca saligna	Willow Bottlebrush	100		100	31	7.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
344	Allocasuarina littoralis	Black She-oak	110		110	35	7.0</																									

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value							Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes		
362	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	23.0	9.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
363	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	18.0	6.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
364	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
365	<i>Acacia disparima</i>	Hickory Wattle	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
366	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
367	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
368	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
369	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	710		710	223	27.0	10.0	8.5	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
370	<i>Corymbia intermedia</i>	Pink Bloodwood	230		230	72	17.0	4.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
371	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	290		290	91	17.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
372	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
373	<i>Corymbia intermedia</i>	Pink Bloodwood	270		270	85	18.0	9.0	3.2	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
374	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	370		370	116	28.0	13.0	4.4	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
375	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	27.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
376	<i>Acacia disparima</i>	Hickory Wattle	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
377	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
378	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	350		350	110	18.0	8.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
379	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	400		400	126	16.0	8.0	4.8	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
380	<i>Corymbia intermedia</i>	Pink Bloodwood	290		290	91	18.0	6.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
381	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	11.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
382	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	10.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
383	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
384	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	9.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
385	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
386	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	11.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
387	<i>Lophostemon suaveolens</i>	Swamp Box	140		140	44	6.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
388	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
389	<i>Allocasuarina littoralis</i>	Black She-oak	140		140	44	10.0	4.0	2.0	1.4	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
390	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
391	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	9.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	Minor	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-	
392	<i>Eucalyptus microcorys</i>	Tallowwood	200		200	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
393	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	6.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
394	<i>Corymbia citriodora</i>	Spotted Gum	170		170	53	14.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
395	<i>Allocasuarina littoralis</i>	Black She-oak	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-		
396	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180	80	197	62	17.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-		
397	<i>Allocasuarina</i>																																

Specimen Details											Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
414	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	330	360	488	153	28.0	14.0	5.9	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
415	<i>Allocasuarina littoralis</i>	Black She-oak	130		130	41	8.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
416	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	760		760	239	26.0	12.0	9.1	2.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
417	<i>Corymbia citriodora</i>	Spotted Gum	100		100	31	14.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
418	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	985		985	309	29.0	14.0	11.8	3.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-
419	<i>Eucalyptus microcorys</i>	Tallowwood	400		400	126	21.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Non-juvenile Koala Habitat Tree	-
420	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	8.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-
421	DEAD/STAG		280		280	88	14.0		3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Retain	Dead Tree (stag)	-
422	<i>Allocasuarina littoralis</i>	Black She-oak	280		280	88	18.0	6.0	3.4	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Retain	Native Tree	-
423	<i>Corymbia citriodora</i>	Spotted Gum	480		480	151	28.0	12.0	5.8	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
424	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	8.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
425	<i>Corymbia citriodora</i>	Spotted Gum	310		310	97	18.0	7.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
426	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	330		330	104	21.0	11.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
427	DEAD/STAG		380		380	119	19.0	7.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Dead Tree (stag)	-
428	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	400		400	126	25.0	12.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
429	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	890		890	280	29.0	14.0	10.7	3.2	Regular	-	-	Die-back	-	-	Typical	-	-	-	-	Typical	-	-	Large	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
430	<i>Corymbia intermedia</i>	Pink Bloodwood	310		310	97	18.0	9.0	3.7	2.0	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
431	<i>Eucalyptus microcorys</i>	Tallowwood	420		420	132	24.0	9.0	5.0	2.3	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
432	<i>Acacia disparima</i>	Hickory Wattle	150		150	47	14.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
433	<i>Eucalyptus microcorys</i>	Tallowwood	510		510	160	23.0	11.0	6.1	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Non-juvenile Koala Habitat Tree	-
434	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	6.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
435	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	18.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
436	<i>Melaleuca saligna</i>	Willow Bottlebrush	120	130	177	56	10.0	5.0	2.1	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
437	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	9.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
438	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	290		290	91	21.0	11.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
439	<i>Corymbia citriodora</i>	Spotted Gum	510	100	520	163	26.0	10.0	6.2	2.5	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
440	<i>Corymbia citriodora</i>	Spotted Gum	380	140	405	127	23.0	9.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
441	<i>Acacia disparima</i>	Hickory Wattle	100	90	135	42	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
442	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	120		120	38	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
443	<i>Corymbia intermedia</i>	Pink Bloodwood	100		100	31	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
444	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
445	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	110		110	35	12.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
446	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
447	<i>Syagrus romanzoffiana</i>	Cocos Palm	250		250	79	14.0	4.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Weed Tree	-
448	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	180		180	57	14.0	4.0	2.2	1.6	Regular	-	-	-																	

Specimen Details											Canopy Condition Details							Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes	
466	<i>Corymbia citriodora</i>	Spotted Gum	560		560	176	28.0	14.0	6.7	2.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
467	<i>Corymbia citriodora</i>	Spotted Gum	530		530	167	23.0	13.0	6.4	2.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
468	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	260		260	82	17.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
469	<i>Acacia disparima</i>	Hickory Wattle	220		220	69	15.0	5.0	2.6	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
470	<i>Corymbia citriodora</i>	Spotted Gum	390		390	123	25.0	13.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
471	<i>Corymbia citriodora</i>	Spotted Gum	380		380	119	21.0	11.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
472	<i>Corymbia citriodora</i>	Spotted Gum	380		380	119	23.0	12.0	4.6	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
473	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	430		430	135	21.0	11.0	5.2	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
474	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	330		330	104	16.0	7.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
475	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	350		350	110	17.0	8.0	4.2	2.1	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
476	<i>Corymbia citriodora</i>	Spotted Gum	470		470	148	28.0	14.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
477	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	240		240	75	16.0	7.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
478	<i>Corymbia intermedia</i>	Pink Bloodwood	150		150	47	15.0	6.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
479	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-	
480	<i>Acacia disparima</i>	Hickory Wattle	360		360	113	15.0	9.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Arborist (Neighbouring Lot, Consent Required)	Native Tree	-	
481	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	190		190	60	15.0	6.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
482	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	170		170	53	14.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
483	<i>Eucalyptus microcorys</i>	Tallowwood	180		180	57	12.0	5.0	2.2	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
484	<i>Lophostemon suaveolens</i>	Swamp Box	140		140	44	12.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
485	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	170	100	197	62	15.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
486	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	330		330	104	15.0	6.0	4.0	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
487	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	130		130	41	15.0	7.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
488	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	160		160	50	13.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
489	<i>Acacia disparima</i>	Hickory Wattle	230		230	72	14.0	6.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
490	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	200		200	63	14.0	7.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
491	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	110		110	35	9.0	4.0	2.0	1.3	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
492	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	130		130	41	14.0	6.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
493	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	420		420	132	28.0	14.0	5.0	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
494	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
495	<i>Corymbia citriodora</i>	Spotted Gum	260		260	82	16.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
496	<i>Acacia disparima</i>	Hickory Wattle	200		200	63	14.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	
497	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	120		120	38	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-	
498	<i>Acacia disparima</i>	Hickory Wattle	140		140	44	11.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-	

Specimen Details											Canopy Condition Details						Trunk Condition Details						Fauna Details and Habitat Value						Additional Details		
Tree ID	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
518	<i>Eucalyptus crebra</i>	Narrow-leaved Ironbark	260		260	82	18.0	6.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
519	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	250		250	79	17.0	6.0	3.0	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
520	<i>Corymbia intermedia</i>	Pink Bloodwood	170	130, 120	245	77	15.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
521	<i>Corymbia torelliana</i>	Cadaghi	120		120	38	12.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Weed Tree	-
522	<i>Melaleuca saligna</i>	Willow Bottlebrush	130		130	41	14.0	4.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
523	<i>Corymbia intermedia</i>	Pink Bloodwood	180	100, 120	238	75	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
524	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	12.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
525	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	450		450	141	23.0	13.0	5.4	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
526	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	360		360	113	17.0	6.0	4.3	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
527	<i>Corymbia citriodora</i>	Spotted Gum	460		460	145	23.0	11.0	5.5	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
528	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	80	100, 60	141	44	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
529	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	12.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
530	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
531	<i>Eucalyptus tereticornis</i>	Forest Red Gum	210		210	66	16.0	5.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
532	<i>Corymbia citriodora</i>	Spotted Gum	120		120	38	12.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
533	<i>Acacia disparrima</i>	Hickory Wattle	230		230	72	15.0	8.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
534	<i>Acacia disparrima</i>	Hickory Wattle	230	200	305	96	14.0	9.0	3.7	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Native Tree	-
535	<i>Corymbia citriodora</i>	Spotted Gum	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Remove	Non-juvenile Koala Habitat Tree	-
536	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	10.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
537	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	10.0	4.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
538	<i>Corymbia citriodora</i>	Spotted Gum	340		340	107	19.0	8.0	4.1	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
539	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
540	<i>Acacia leiocalyx</i>	Early-flowering Black Wattle	100		100	31	9.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
541	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	470		470	148	23.0	15.0	5.6	2.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
542	<i>Acacia disparrima</i>	Hickory Wattle	150		150	47	10.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
543	<i>Corymbia intermedia</i>	Pink Bloodwood	350		350	110	21.0	11.0	4.2	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
544	<i>Allocasuarina littoralis</i>	Black She-oak	160		160	50	9.0	5.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
545	<i>Allocasuarina littoralis</i>	Black She-oak	150		150	47	14.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
546	<i>Allocasuarina littoralis</i>	Black She-oak	100		100	31	14.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
547	<i>Corymbia citriodora</i>	Spotted Gum	140		140	44	16.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
548	<i>Corymbia citriodora</i>	Spotted Gum	110	120	163	51	16.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
549	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	390		390	123	23.0	14.0	4.7	2.2	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
550	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	410		410	129	24.0	12.0	4.9	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
551	<i>Acacia disparrima</i>	Hickory Wattle	140		140	44	14.0	5.0	2.0	1.4	Regular	-																			

Tree ID	Specimen Details										Canopy Condition Details						Trunk Condition Details					Fauna Details and Habitat Value						Additional Details			
	Botanical Name	Common Name	Trunk DBH (mm)	Additional Trunks DBH (mm)	Total DBH (mm) [AS 4970-2009]	Trunk Circumference (cm) [AS 4970-2009]	Height (m)	Spread (m)	Tree Protection Zone (m)	Structural Root Zone (m)	Canopy Form	Spreading	Thinning	Die-Back	Epicormic Growth	Lopped	Canopy Health	Leaning	Vines	Trunk Damage	Fire Damage	Trunk Health	Scats	Scratches	Hollows	Nest	Termite Nest	Habitat Value	Retention	Native Status	Additional Notes
570	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	110		110	35	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
571	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
572	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	10.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
573	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	140		140	44	14.0	5.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
574	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	120		120	38	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
575	<i>Corymbia intermedia</i>	Pink Bloodwood	140	130, 60	200	63	14.0	5.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
576	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
577	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	11.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
578	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	120, 90, 80	197	62	14.0	1.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
579	<i>Melaleuca saligna</i>	Willow Bottlebrush	190		190	60	11.0	4.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
580	<i>Corymbia intermedia</i>	Pink Bloodwood	120	120	170	53	15.0	6.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
581	<i>Corymbia intermedia</i>	Pink Bloodwood	160	200	256	80	17.0	5.0	3.1	1.9	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
582	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	170	170	240	76	17.0	6.0	2.9	1.8	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
583	<i>Acacia disparima</i>	Hickory Wattle	120	160	200	63	15.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
584	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	230		230	72	17.0	7.0	2.8	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
585	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	110		110	35	14.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
586	<i>Corymbia intermedia</i>	Pink Bloodwood	170		170	53	13.0	3.0	2.0	1.6	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
587	<i>Corymbia intermedia</i>	Pink Bloodwood	100	80	128	40	11.0	2.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
588	<i>Acacia disparima</i>	Hickory Wattle	120		120	38	11.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-
589	<i>Corymbia intermedia</i>	Pink Bloodwood	160		160	50	15.0	2.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
590	<i>Corymbia citriodora</i>	Spotted Gum	190		190	60	17.0	3.0	2.3	1.6	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
591	<i>Corymbia intermedia</i>	Pink Bloodwood	110		110	35	11.0	2.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
592	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	21.0	9.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
593	<i>Lophostemon suaveolens</i>	Swamp Box	150		150	47	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
594	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	180	130	222	70	15.0	5.0	2.7	1.8	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
595	<i>Melaleuca saligna</i>	Willow Bottlebrush	100	90	135	42	10.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
596	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
597	<i>Melaleuca saligna</i>	Willow Bottlebrush	110		110	35	12.0	3.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
598	<i>Corymbia intermedia</i>	Pink Bloodwood	200	210	290	91	16.0	8.0	3.5	2.0	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
599	<i>Eucalyptus fibrosa</i>	Broad-leaved Red Ironbark	200		200	63	16.0	6.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
600	<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	120	250	277	87	14.0	8.0	3.3	1.9	Regular	-	-	-	-	-	Typical	Minor	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
601	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	200		200	63	17.0	8.0	2.4	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
602	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	210		210	66	18.0	9.0	2.5	1.7	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
603	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	120		120	38	14.0	3.0	2.0	1.4	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
604	<i>Corymbia intermedia</i>	Pink Bloodwood	250	210	326	103	15.0	7.0	3.9	2.1	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
605	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	240		240	75	17.0	8.0	2.9	1.8	One-sided	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
606	<i>Eucalyptus siderophloia</i>	Northern Grey Ironbark	400		400	126	23.0	11.0	4.8	2.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
607	<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum	160		160	50	12.0	4.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
608	<i>Lophostemon suaveolens</i>	Swamp Box	160		160	50	14.0	3.0	2.0	1.5	Regular	-	-	-	-	-	Typical	-	Native	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
609	<i>Lophostemon suaveolens</i>	Swamp Box	100		100	31	9.0	1.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Non-juvenile Koala Habitat Tree	-
610	<i>Allocasuarina littoralis</i>	Black She-oak	110		110	35	11.0	5.0	2.0	1.3	Regular	-	-	-	-	-	Typical	-	-	-	-	Typical	-	-	-	-	-	-	Not subject to this application	Native Tree	-

3. Summary of Ecological values

Two Ecologists from SHG assessed the project area on 18 October 2022. The entire site was traversed by foot to ensure all vegetation communities, and flora and fauna species were recorded. Particular attention was paid to threatened flora and habitat for threatened fauna species that were listed as possibly occurring on or within the vicinity of the development site, and specific micro assemblages which may support these threatened species.

This included a detailed tree plot to confirm vegetation habitat structure and status, and meandering searches for presence of Koala in the forms of scats and specimens where habitat was considered of suitable size and structure to potentially support Koala. As detailed in the State Code 25 Response and Ecological Assessment Report (EAR), the patch of KHA located on and directly adjoining the site is considered relatively isolated and is anticipated to become increasingly fragmented due to surrounding development approvals and as the planning intent is for medium and high-density residential areas.

The site is mapped as Category X (non-remnant) vegetation and Category B (remnant) vegetation containing Least Concern RE12.11.5 along the western section of the northern and southern boundaries and Least Concern RE 12.11.24 in the eastern portion (refer **Figure 4** and **Figure 5**). Regulated vegetation areas are also mapped as KHA and essential habitat for Koala under the State Planning Policy 2017 (SPP).

Field surveys confirmed on-ground vegetation values are generally reflective of regional ecosystem mapping. Modified areas containing minimal to no native vegetation values are located in the central portion the site and are generally associated with the dwelling and surrounding areas. Relatively intact eucalypt woodland is present within the mapped Category B (remnant) vegetation areas which contains large eucalypt species aligning with RE12.11.24 and RE12.11.5. *Corymbia citriodora* (Spotted Gum), *Eucalyptus fibrosa* (Broad-leaved Red Ironbark), *E. siderophloia* (Grey Ironbark), *E. microcorys* (Tallowwood), *E. carnea* (Broad-leaved White Mahogany) and *E. acemnoides* (White Mahogany).

The understorey contains a mix of *Acacia disparrima* (Hickory Wattle), *Lophostemon sauveolens* (Swamp Box), *Melaleuca saligna* (White Bottlebrush) and *Allocasuarina littoralis* (Black She-oak). The ground and shrub layer throughout the site is modified in previously cleared areas, particularly surrounding the dwelling. Ground layer weed species including *Senecio madagascariensis* (Fireweed) and *Ageratum houstonianum* (Blue Billygoat Weed) were recorded.

The property contains two constructed dams, one in the north-western corner of the site and a second smaller dam in the north-eastern corner. The dam in the north-eastern corner is surrounded by *Acacia disparrima* (Hickory Wattle) and *Acacia concurrens* (Black Wattle) along with *Lophostemon sauveolens* (Swamp Box) and *Allocasuarina littoralis* (Black She-Oak). Vegetation surrounding the second larger dam in the west includes *A. disparrima*, *L. sauveolens* and *Melaleuca saligna* (White Bottlebrush).

The field data collected during this period is considered to provide sufficient information to effectively understand and assess the existing ecological features and consequently the constraints that would influence the extent of developable land. The identification of ecological features considered to be of significance was

facilitated through application of the field survey methodology. Field surveys were conducted in accordance with State Guidelines and *Gold Coast City Plan 2016* City Plan Policy – Ecological site assessments (CPP).

Whilst the mapped KHA contains suitable Koala food and shelter trees, the on-site KHA is already relatively fragmented and considered unlikely to provide long-term value as a stepping-stone or patch habitat for any transient Koala. Given the site is surrounded by residential development and George Alexander Way to the west.

The proposed development will impact approximately 1.56 ha of mapped KHA containing 150 NJKHTs.



Legend

-  Site DCDB
-  Qld DCDB

Koala Habitat Areas

-  Core Remnant Koala Habitat Areas
-  Core Regrowth Koala Habitat Areas
-  Locally Refined Koala Habitat Areas
-  Koala Priority Areas

Figure 3

Koala Priority Areas and
Koala Habitat Areas

File ref. 11241 E Figure 3 Koala 2019 A
Date 2/02/2023
Project George Alexander Way, Coomera

0 10 20 30 40 50 m

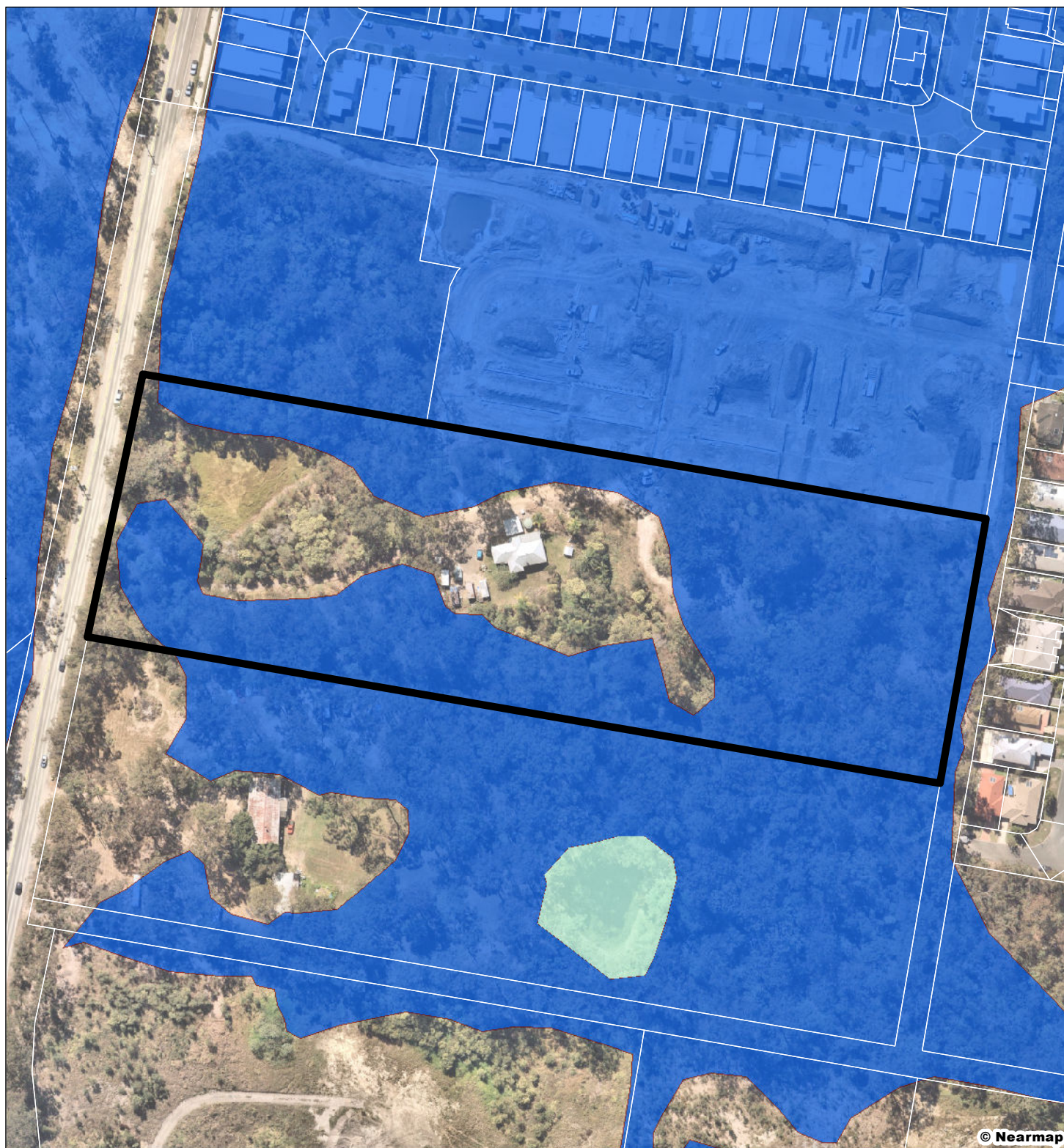
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB

Regulated Vegetation



Category A area -
Vegetation Offset/Compliance
notices/VDecs



Category B area -
Remnant vegetation



Category C area -
High value regrowth
vegetation



Category R area -
Reef regrowth
watercourse vegetation



Category X area -
Vegetation not regulated
under the VMA



Water



Area not categorised

Figure 4

Regulated Vegetation Management Map

File ref. 11241 E Figure 4 RVMM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

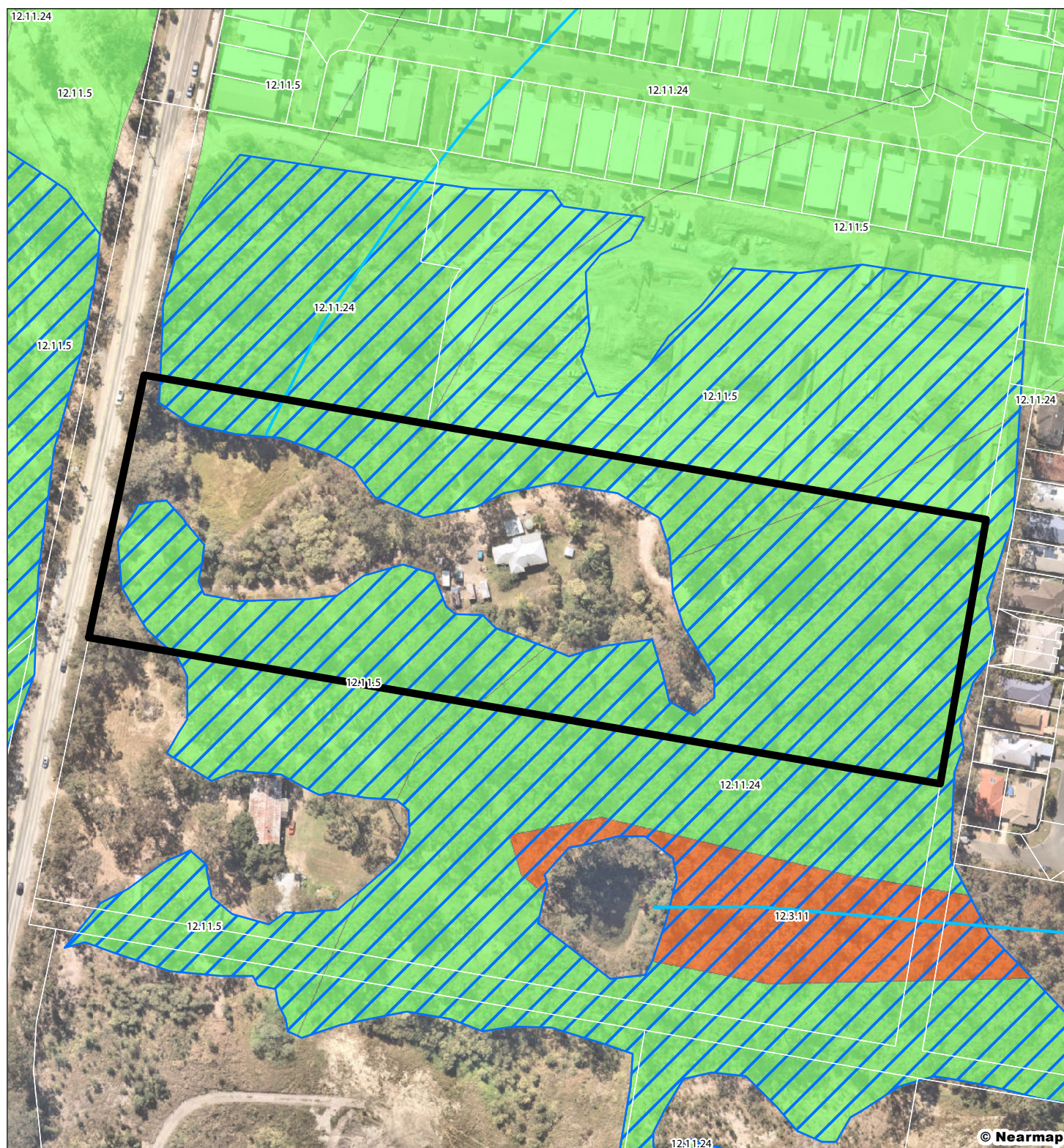
Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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Legend



Site DCDB



Qld DCDB



VM Watercourses



VM Essential Habitat



VM Wetland

Regional Ecosystems mapping



Category A or B area containing endangered regional ecosystems



Category A or B area containing of concern regional ecosystems



Category A or B area that is a least concern regional ecosystem



Category C area containing endangered regional ecosystems



Category C area containing of concern regional ecosystems



Category C area that is a least concern regional ecosystem

Figure 5

Regulated Vegetation Supporting Map

File ref. 11241 E Figure 5 RVSM A

Date 2/02/2023

Project George Alexander Way, Coomera

0 10 20 30 40 50 m

Scale (A4): 1:2,000 [GDA 2020 MGA Z56]



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4. Impacts to the Koala

The following direct and indirect impacts have been identified as having potential to occur as a result of construction.

Construction Impacts

- Direct loss of approximately 1.56 ha of mapped KHA habitat.
- Indirect loss of habitat through edge effects.
- Loss of 170 non-juvenile koala habitat trees (NJKHTs), 150 of which are within mapped KHA.
- Potential loss of an additional seven (7) NJKHTs subject to arborist assessment and supervision.
- Potential for injury or mortality caused by vegetation clearing.
- Potential for injury or mortality caused by vehicle use during construction.
- Potential species displacement into surrounding habitat areas.

4.1. Risk Assessment

Each of the identified potential impacts were considered in the context of the proposed action within the Risk Assessment Table (refer **Table 1**) to identify where avoidance and mitigation measures are to be focused.

Table 1: Risk Assessment

Impact	Likelihood	Consequence	Risk Rating
Construction Phase			
Direct loss of approximately 1.56 ha of mapped KHA habitat.	Almost certain (A)	Minor (2)	High
Indirect loss of habitat through edge effects	Almost certain (A)	Minor (2)	High
Loss of 170 NJKHTs	Almost certain (A)	Minor (2)	High
Potential loss of an additional seven (7) NJKHTs	Possible (C)	Minor (2)	Moderate
Injury and mortality due to vegetation clearing	Unlikely (D)	Major (4)	Moderate
Injury and mortality due to increased vehicle usage	Unlikely (D)	Major (4)	Moderate
Potential species displacement into other habitat areas	Possible (C)	Minor (2)	Moderate

As identified from the risk assessment above, management measures will focus on avoiding and mitigating impacts caused by:

- Loss of habitat (direct and indirect).

- Risk of injury and death caused by:
 - vegetation clearing; and
 - vehicle strike.
- Barriers to dispersal into surrounding habitat areas.

5. KMP Framework

This KMP focuses on the management and safety of Koalas during the construction of the project. To achieve the objectives of the KMP, as detailed in **Section 1**, the implementation of specific management actions at each phase of project design and construction will occur. Management tasks and actions relevant to the project are explained throughout the following subsections. Specific actions are converted to schedules within **Section 6**, and documented using the S.M.A.R.T criteria (Specific, Measurable, Achievable, Reasonable and Time Specific).

5.1. General Management

5.1.1 Roles and Responsibilities

The successful implementation of this KMP requires a number of key personnel to complete various roles. While many of the contractors for the project are yet to be appointed, these will be specified within on-site working versions of the KMP.

Environmental Coordinator

SHG is the Environmental Coordinator for the project and is responsible for the development of this KMP and documentation for overarching environmental management. SHG will be responsible for managing non-compliance by appointed contractors and sub-contractors, including establishing additional management procedures.

Administering Authority

CGC is the government approval authority for the Local Government Area and issuer of development and operational approvals for the project.

Site Coordinator

The Site Coordinator is a representative of the project team (typically the Project Engineer) and is responsible for coordinating the project consultants and construction contractor.

Site Supervisor

The Site Supervisor is a representative of the Construction Contractor (to be appointed) and is responsible for overseeing all pre-clearing, clearing and construction activities. The Site Supervisor is responsible for ensuring all pre-clearing, clearing and construction activities are undertaken in accordance with this KMP and subsequent environmental management documentation. The Site Contractor will be responsible for engaging and commissioning the Fauna Spotter Catcher.

Fauna Spotter Catcher

A Department of Environment and Science (DES) approved Fauna Spotter Catcher is a person who holds a rehabilitation permit with an extended authority issued by DES specifying the holder may take, keep or use an animal whose habitat is about to be destroyed by a human activity. A DES approved Fauna Spotter Catcher will be engaged by the Proponent for pre-construction and construction phases of the project. It is noted that

the Fauna Spotter Catcher must hold a Rehabilitation Permit and a copy of this permit along with their contact details will be passed on to the Environmental Coordinator. The engaged Fauna Spotter Catcher will be responsible for undertaking pre-clearing surveys of the site and preparing all required pre-clearing and post-clearing reporting. The Fauna Spotter Catcher must be present on site during all clearing activities and is responsible for the relocation of native fauna.

A list of key contacts for the project is contained in **Table 2**.

Table 2: Key Management Personnel

Role	Nominated Person	Company
Proponent/ Project Coordinator	Michael Zielski	Coomera GA Pty Ltd
Environmental Coordinator	Amy Westman	Saunders Havill Group
CGC Contact	TBA	City of Gold Coast
Site Coordinator	TBA	TBA
Principal Site Contractor	TBA	TBA
Registered Fauna Spotter	TBA	TBA

5.1.2 Environmental Training

The KMP will be issued to all site contractors and sub-contractors and will be made available within the site construction office. Elements of compliance with the KMP will form part of the responsibility of the Principal Site Contractor. Training on the KMP will be incorporated as part of the broader environmental management and workplace health and safety procedures for the site. This will include the following management plans actions:

- 1) Providing a copy of the KMP to all site contractors and sub-contractors.
- 2) Requirements of the KMP discussed during site induction.
- 3) Making available the final copy of the KMP within the site construction office.
- 4) Requirements of the KMP to be incorporated into workplace checklists, work method statement and toolbox talks.
- 5) Monthly review and report on compliance with the KMP as part of the Principal Contractor's role.

5.2. Construction Management

5.2.1 Fauna

The sequential clearing of site vegetation will be undertaken in accordance with fauna management protocols implemented by a Fauna Spotter Catcher registered by DES. Additionally, the adoption of aspects of a leading practice fauna management model to guide works prior, during and post construction. This model is cited as the *Draft Code of Practice for the Welfare of Animals Affected by Land-clearing and Other Habitat Impacts*,

endorsed by the Australia Zoo Wildlife Warriors and Voiceless (the Draft Code). Under the Draft Code, the following procedures will apply to all clearing works:

Action 1- Engagement of Fauna Spotter Catcher

This action requires that the developer engage a Fauna Spotter Catcher with full registrations and licences provided in accordance with the DES.

Action 2- Fauna Spotter Catcher to prepare a Wildlife Protection and Management Plan (WPMP)

The WPMP will include the following information:

- description of the project with reference to impacts on wildlife and wildlife habitat;
- pre-development plan of the site showing habitat areas, features, corridors, riparian habitats and adjacent areas;
- results of any fauna surveys including pre-clearance surveys; and
- a wildlife and habitat impact assessment based on the proposed development works.

Action 3- Prepare a Wildlife and Habitat Impact Mitigation Plan (WHIMP)

Following the completion of the WPMP, the Fauna Spotter Catcher will prepare a more detailed WHIMP, which will provide details on:

- measures required to be completed to minimise wildlife and habitat impacts during operational works;
- wildlife capture and removal plan;
- contingency plan for wildlife requiring euthanasia, other veterinary procedures or captive care;
- wildlife storage and housing plan;
- wildlife release and disposal plan; and
- post works measures to minimise impacts on wildlife.

Action 4 – Role of Fauna Spotter Catcher at Pre-Start Meeting

Prior to the commencement of any construction works, a pre-start meeting is to be held between the project manager, site foreperson, plant operators and Local Government representatives (if required). At the pre-start meeting, the Fauna Spotter Catcher is to outline the clearing process and the requirements of the WPMP.

Action 5 – During Construction

The Fauna Spotter Catcher is to be on-site during all phases of construction which involve potential impacts on wildlife or habitat. This will enable the Fauna Spotter Catcher to make any necessary adjustments to the WPMP to cater for any specific issues encountered during the clearing works.

Action 6 – Post Works Reporting (Wildlife Management Report)

During the course of all site works, including the pre-clearance surveys, the Fauna Spotter Catcher is to keep an accurate record of all animals encountered, captured, incidents and disposals for the project. The records

should form part of the post-works Wildlife Management Report to be issued under licence requirements to DES. The Wildlife Management Report should consist of the following three sections:

1. Wildlife Habitat Management Plan – Aspects of the planning, design, construction and ongoing operation of the project in which risks to wildlife have been identified. This plan should also include recommendations and outline the type, frequency and timeframes for monitoring
2. Wildlife Capture and Disposal Plan – Should contain the following details for each captured animals:
 - a. Species.
 - b. Identification name or number.
 - c. Sex (M, F or unknown).
 - d. Approximate Age or Age Class (neonate, juvenile, sub-adult, adult).
 - e. Time and date of capture.
 - f. Method of capture.
 - g. Exact point of capture (GPS coordinates).
 - h. State of health.
 - i. Incidents associated with capture likely to affect health.
 - j. Veterinary intervention or treatments.
 - k. Time held in captivity.
 - l. Disposal method (euthanasia, translocation, re-release).
 - m. Date and time of disposal.
 - n. Detailed of disposal (GPS points of release).
 - o. For released animals, location relative to point of capture.
3. Animal Injury and Euthanasia Report – similar details for the Wildlife Capture and Disposal Plan should be included in this report.

5.2.2 Vegetation Management / Sequential Clearing

Vegetation clearing over the development footprint will occur sequentially and most likely in accordance with an endorsed Vegetation Clearing and Management Plan and Fauna Management Plan (VCFMP) to be provided at the Operational Works phase. VCFMP's if required will detail fauna exclusion fencing to be erected around construction areas to prevent fauna from dispersing into these hostile areas.

Sequential clearing means the clearing of vegetation that:

- ensures any Koalas in the area being cleared have enough time to move out of the clearing zone without human intervention. For sites with an area of more than 3 ha, this means:
 - i. vegetation clearing is to be carried out in stages, where the total area to be cleared in any one stage:
 - is no greater than 50 % of the area of a site that is 6 ha or smaller;

- is no greater than 3 ha or 3 % of the area of a site that is larger than 6 ha.
 - ii. between each stage and the next, there is at least one 12-hour period commencing at 6 pm on one day and concluding at 6 am the following day, during which no trees are cleared on the site.
 - iii. no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, is cleared until the tree is vacated by the Koala.
- ensures vegetation clearing is directed away from threatening processes, or hostile environments, and towards any retained vegetation or habitat links, ensuring that:
 - i. Koalas are not pressured, through loss of habitat, to cross roads or move through developed or disturbed areas, such as residential areas or areas that require movement of greater than 100 m over cleared ground to reach suitable habitat;
 - ii. Koalas are not isolated to an “island” of habitat between hostile environments, such as road and cleared areas, unless there are no other more suitable habitat areas in which to direct Koalas; and
 - iii. Koalas can safely leave the site of clearing and relocate to adjacent habitat through maintained habitat links.

The following additional controls for the appointed DES Fauna Spotter Catcher during vegetation clearing include:

1. No vegetation clearing is to commence or continue without the presence of the appointed DES endorsed Fauna Spotter Catcher.
2. All trees scheduled for removal will be checked on the day of their removal (prior to the start of operations) for the presence of Koalas by the appointed DES endorsed Fauna Spotter Catcher.
3. The appointed DES endorsed Fauna Spotter Catcher is responsible for ensuring, throughout the duration of the clearing operations, that no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, or a tree identified as being a risk to Koalas, should not be felled, damaged or interfered with until the Koala has moved from the clearing zone on its own volition.
4. Where a Koala is present within a clearing zone, the tree will be marked with distinctive flagging (and other advisory means as required) and machinery operators will be briefed on the location of the area. No clearing works can occur within 20 m of the tree retaining a Koala until the animal has moved on via its own volition (where the strategy is to allow the Koala to move of its own accord, overnight). On the following day, the tree and retained area, are to be checked again prior to their removal. If necessary, the procedure is repeated until the Koala has moved.
5. In the event that the Koala is sick or injured and needs medical attention, DES will be contacted and trapping by the Fauna Spotter Catcher may be required to allow the Koala to receive medical attention. Actions will be guided by DES and the Fauna Spotter Catcher.

5.2.3 Adaptive Management and Management Strategy

An adaptive management strategy is to be applied to this KMP to enable it to alter as necessary to better protect Koala from injury or mortality if required. As a part of this strategy the following minimal protocols are to be applied in the event of koala injury or mortality as a result of clearing or construction:

1. Clearing and construction is immediately ceased.
2. The DES is notified in writing within 48 hours of the Koala injury or mortality occurring.
3. Measures for minimising impacts to Koalas as a result of clearing and construction are revised, in consultation with a suitably qualified person to reduce the likelihood of Koala injury or mortality before clearing and construction recommences.

6. Management activities

A number of management activities have been identified within this KMP and broadly explained through **Section 5. Table 3** provides environmental management commitments to be implemented during construction works. Specific details relevant to each management commitment are provided, including timing, funding, responsible parties, and monitoring to ensure each commitment can be achieved. Each suite of management activities is categorised into pre-construction, during construction and operational measures. This KMP will be reviewed annually, or at the completion of each phase of the project, and where necessary edited.

Table 3: Management Roles and Responsibilities

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
PRE-COMMENCEMENT MANAGEMENT ACTIONS				
1. Provide a copy of the KMP to all contractors and subcontractors, and retain a final copy at the construction office on-site, at all times.	Proponent to provide to principal contractor. Principal Contractor to all sub-contractors	As part of contractor appointment and throughout construction.	Contractor costs associated with action to be included in tender scope funded by Proponent.	Provision for supplying the KMP to the Principal Contractor will occur with contractual appointment. The Principal Contractor is responsible for providing evidence that each appointed sub-contractor has been provided the KMP.
2. Key KMP Criteria to be included on the Workplace Health and Safety and Environmental Management work method statement.	Prepared by the principal contractor as part of other site induction checklists	Checklist to be completed prior to commencement and issued as part of all site inductions.	Principal Contractor via Proponent	The site induction process requires all visitors and personnel at the site to read and acknowledge work method statements as part of a signed checklist. This is provided to and signed by each new entrant to the site as part of induction procedures.
3. Contractor will review project compliance with the KMP, on a monthly basis, if required.	Principal Contractor in their role as Superintendent for the project.	Monthly	Principal Contractor via Proponent	Review of compliance on a monthly basis. Any non-compliances must be reported immediately.

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
4. Engagement of DES approved Fauna Spotter Catcher - ensure Fauna Spotter Catcher retains all necessary licenses and accreditations.	Proponent (or as passed onto Principal contractor)	Before clearing commences on any stage of works and during construction including any post construction reporting.	Proponent	Pre-clearance report issued to the Environmental Coordinator prior to commencement of works. Fauna Spotter Catcher on site during all vegetation clearing works.
5. Develop Wildlife Protection and Management Plan (Prepared in accordance with elements of the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing).	Fauna Spotter Catcher	Before construction commences.	Proponent	Prior to commencement of clearing in any stage.
6. Develop Wildlife and Habitat Impact Mitigation Plan (Prepared in accordance with elements of the Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing).	Fauna Spotter Catcher	Before construction commences.	Proponent	Prior to commencement of clearing in any stage
7. Attendance of Fauna Spotter Catcher at Pre-Start Meeting.	Fauna Spotter Catcher / Principal contractor	At the pre-start meeting clearing works.	Proponent	Fauna Spotter Catcher to confirm attendance.
8. Install temporary fauna exclusion fence or other suitable barrier around construction areas to prevent koala access into construction zone.	Contractors	After the clearing is completed and prior to construction occurring within the development area.	Proponent	Fence is to be monitored monthly by the Principal Contactor.

DURING CONSTRUCTION MANAGEMENT ACTIONS

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
9. All clearing of koala habitat is to occur in a staged and sequential pattern enabling the directional flushing of native animals as guided by the suitably qualified Fauna Spotter Catcher.	Principal Contractor and or appointed clearing sub-contractor.	At the time of clearing works for each stage	Proponent	Staged and sequential clearing may also be guided by the VCFMP if conditioned. Monitoring occurs as part of pre-start and completion inspections if required by officers from CGC.
10. Stop works procedures for clearing vegetation supporting any Koalas until such time that any present Koalas vacate the vegetation or are relocated by a suitable qualified person.	Fauna Spotter Catcher / Principal Contractor and or appointed clearing sub-contractor.	During clearing no tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, or a tree identified as being a risk to Koalas, to be felled, damaged or interfered with until the Koala has moved from the clearing zone of its own volition.	Proponent	Where a Koala is present within a clearing zone, the tree will be marked with distinctive flagging (and other advisory means as required) and machinery operators will be briefed on the location of the area. No clearing works can occur within 20 m of the tree retaining a Koala until the animal has moved on via its own volition (where the strategy is to allow the Koala to move of its own accord, overnight). On the following day, the tree and retained area, are to be checked again prior to their removal. If necessary, the procedure is repeated until the Koala has moved. In the event the Koala is sick or injured and needs medical attention, DES will be contacted and trapping by the Fauna Spotter Catcher may be required to allow the Koala to receive medical attention.
11. A Post clearing and construction works Wildlife Management Report is to be prepared by the appointed Fauna Spotter Catcher at the completion of each stage of works - Prepared in accordance with elements of the <i>Draft Queensland Code of Practice for the Welfare of Animals affected by Land Clearing</i> .	Fauna Spotter/Catcher	Records to be kept during construction and final report submitted at completion of works	Proponent	Within 10 working days of the conclusion of each stage of clearing.

Conceptual Stormwater Management Plan



54 George Alexander Way, Coomera

Coomera GA Pty Ltd

January 2023

BC-22167



BIOME

WATER AND ENVIRONMENTAL CONSULTING



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Executive Summary

This report has been prepared on behalf of Coomera GA Pty Ltd and presents a comprehensive review of available Stormwater Quality Improvement Devices (SQID) and stormwater Best Management Practices (BMP) to ensure that the proposed development adequately addresses the management of stormwater quantity and quality during the operational phase of the development.

In order to address the management of stormwater quantity and quality, a single stormwater treatment basin has been proposed within the south-eastern corner of the site. Basin 1 will be a combined bioretention/detention basin for quality and quantity management from post development Catchments A2, B and C.

The proposed basin design includes an estimated detention volume of 507 m³. Modelling of this detention basin and its associated outlet structures indicate that pre-developed flows can be maintained for all nominated ARI events at the points of discharge. The design of Basin 1 also includes a bioretention, with a filter area of 130 m², within the lower south eastern corner of the site. MUSIC modelling demonstrates that pollutant removal efficiencies of 80%, 60%, 45% and 90% for TSS, TP, TN and gross pollutants respectively for Catchments A2, B & C.

Flows from the northern portion of the subject site currently discharge across the site's northern boundary to the neighbouring allotment at 66 George Alexander Way. This site has been approved for residential subdivision (currently under construction, ROL reference: 201700439) and has an approved Stormwater Management Plan prepared by BIOME Consulting (dated June 2018, project reference: BC-17141). Undeveloped flows from the northern portion of the subject site were accommodated within the approved stormwater treatment train and basin designs at 66 George Alexander Way.

As part of the development proposal for the subject site, road connections have been proposed to future Pioneer Street and Mercy Street within the northern neighbouring development (Lot 1 on SP312031, ROL reference: 201700439). Developed flows from internal site catchment A1 and major flows from catchment A2 will be directed north due to site grading which allows connection to the beforementioned roads of Lot 1. Both Pioneer Street and Mercy Street convey flows to two (2) approved treatment/detention basins within Lot 1. An assessment of the developed catchments within the subject site has been undertaken to ensure flows discharging from the development will not compromise on the approved basin designs within 66 George Alexander way. Modelling indicates flows will be reduced from the design flows assumed for the approved basin designs, and the development of Catchment A1 will not hinder the treatment efficiency of 'Basin A' within the approved development.

The level of detail provided within this report is suitable for development assessment only and should not be relied upon for construction purposes. Detailed design documentation should be prepared in conjunction with civil operational works to finalise the stormwater concepts presented in this report.

This report has been reviewed by a Registered Professional Engineer of Queensland (RPEQ), and certification has been provided that if the design parameters set out in this report are included within the development:

- there should be no worsening in peak discharge as a result of the proposed development; and
- stormwater pollutant load reductions in accordance with best practice should be achieved.



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Appendix

Appendix A – Healthy Waters Code

Appendix B – Stormwater Management Design Drawings

Appendix C – ARR Data Hub Summary & BOM IFD data

Appendix D – 1 % AEP Box and Whisker Plots for Modelled Durations

Appendix E – Rational Method Validation

Appendix F – Approved Roadworks and Drainage Layout Plan by Arcadis for 1 Talpa St Coomera (Stages 1A & 1B)

Appendix G – Operational Control Plan & MUSIC Catchment Plan for 66 George Alexander Way (Approved)



1 Introduction

This conceptual stormwater management plan has been prepared so as to be considered as part of a Development Application for a Reconfiguration of a Lot (ROL)/Material Change of Use (MCU) over Lot 96 on RP 187418 at 54 George Alexander Way, Coomera (the subject site).

The report has been prepared on behalf of Coomera GA Pty Ltd and presents a comprehensive review of available Stormwater Quality Improvement Devices (SQID) and stormwater Best Management Practices (BMP) to ensure that the proposed development adequately addresses the management of stormwater quantity and quality during the operational phase of the development.

The level of detail provided within this report is suitable for development assessment only and should not be relied upon for construction purposes. Detailed design documentation should be prepared in conjunction with civil operational works to finalise the stormwater concepts presented in this report.

1.1 Background

The site immediately north of the subject site (formerly 66 George Alexander Way, Lot 1 on SP312031) has been approved for residential subdivision and is currently under construction (ROL reference: 201700439). There is an approved Stormwater Management Plan for this site prepared by BIOME Consulting (Version 2 dated June 2018, job reference BC-17141) which included undeveloped flows from the northern portion of the subject site within the stormwater treatment and detention basin designs.

As part of the development proposal for the subject site, road connections are proposed to Mercy Street, and Pioneer Street within the neighbouring development. Developed flows from a portion of the subject site will be directed north due to site grading which allows connection to the beforementioned roads of Lot 1. Both Pioneer Street and Mercy Street convey flows to two (2) approved treatment/detention basins within Lot 1. As such an assessment of the developed catchments within the subject site has been undertaken to ensure flows discharging from the development will not compromise on the approved basin designs within 66 George Alexander way.

1.2 Objectives

The overarching objective of this report is to present practical conceptual stormwater designs which can be integrated into the development proposal so as to ensure that the development does not cause an unacceptable impact or nuisance which could result in actionable damage to downstream properties and receiving environments during the operational phase of development. In addition, the report aims to address the requirements of the City of Gold Coast – Healthy Waters Code (Appendix A).

The following objectives are to be achieved.

Operational Phase Objective (Quantity)	Achieve a Lawful Point of Discharge (LPD) for all site catchments in accordance with QUDM (2016).
Operational Phase Objective (Quality)	Stormwater discharged from the site achieves the specified load based reduction targets in accordance Queensland Water Quality Guidelines (2009). For the development site relevant targets are TSS 80%, TP 60%, and TN 45%.



2 Site Location

The subject site is located within the City of Gold Coast local area at 54 George Alexander Way, Coomera and comprises a single rectangular allotment, Lot 96 on RP 187418. The Lot has a total area of 30,100 m², however only the eastern half is subject to the proposed development application and is referred to the 'subject site' within this report. The site currently has street frontage to George Alexander Way to the west which is currently used as the access point to the subject site. The site is currently bounded by:

- A Bridle Trail Park Reserve to the east;
- an approved residential subdivision (currently under construction) to the north; and
- a freehold allotment to the south.

There is currently an existing dwelling and associated shed structure within the allotment. There is a small existing dam within the north eastern corner of the site. The remainder of the site consists of cleared patches, vehicle tracks, and dense scrub.

Refer to Figure 2.1 below which presents a Google map depicting the site's location and surrounding road network.



Figure 2.1 Site Location



2.1 Rainfall

The hydrologic analysis undertaken in this report will rely on Australian Rainfall and Runoff (ARR) temporal pattern and IFD data obtained for the site from the BOM (Table 2.1).

Table 2.1 Adopted Intensity Frequency Data (mm/hr)

Storm Duration	Annual Exceedance Probability (AEP)					
	39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
5 minute	143.0	180.0	208.0	240.0	283.0	316.0
10 minute	117.0	145.0	168.0	192.0	223.0	246.0
15 minute	98.9	123.0	142.0	162.0	187.0	207.0
20 minute	86.1	107.0	123.0	141.0	164.0	181.0
25 minute	76.6	95.4	110.0	126.0	147.0	162.0
30 minute	69.1	86.3	99.6	114.0	134.0	148.0
45 minute	54.3	68.1	79.0	91.2	108.0	120.0
60 minute	45.3	57.1	66.6	77.2	91.8	103.0
90 minute	34.8	44.3	52.1	60.8	73.1	83.0
120 minute	28.9	37.0	43.7	51.3	62.1	70.9
180 minute	22.2	28.8	34.2	40.5	49.4	56.8
270 minute	17.2	22.5	26.9	32.1	39.4	45.4
360 minute	14.4	19.0	22.8	27.3	33.5	38.7



3 Existing Case – Hydrological Assessment

xpstorm was utilised to assess the site's existing hydrology and generate hydrographs to represent the stormwater flows expected at the site's existing points of discharge (PD). Modelling was based on existing catchment areas and surface characteristics. Peak discharge rates for nominated Annual Exceedance Probabilities (AEPs) were derived from the output hydrographs. The following sections detail the input parameters used in the *xpstorm* modelling. Catchments have been delineated on Drawing DWG-200 – Appendix B.

3.1 Existing Case – Discharge Locations

Flows from the subject site currently discharge at six (6) discharge locations (PDs), north, east, south and west including:

- PD-A1 The northern freehold lot (Lot 1 on SP312031) which is currently being developed as a residential subdivision (ROL reference: 201700439). Flows from the north western portion of the site are conveyed as sheet flow across the common boundary with Lot 1. In its current state, flows are conveyed as overland flow within Lot 1 ultimately discharging to a drainage reserve (Lot 834 on SP291410).

The development of Lot 1 which is currently underway will result in flows from the subject site being conveyed within newly created Pioneer Street as kerb and channel and piped flow conveyed to a stormwater treatment/detention basin within the north western corner of Lot 1. Provisions for the conveyance of these flows from the subject site has been provided as part of the stormwater design (refer to approved SMP by BIOME consulting, ROL reference: 201700439).

- PD-A2 The northern freehold lot (Lot 1 on SP312031) which is currently being developed as a residential subdivision (ROL reference: 201700439). Flows from the north to north eastern portion of the site are conveyed as sheet flow across the common boundary with Lot 1. In its current state, flows are conveyed as overland flow within Lot 1 and discharge into the drainage network of Talpa Street.

The development of Lot 1 which is currently underway will result in flows from the subject site being conveyed within newly created Mercy Street as kerb and channel and piped flow conveyed to a stormwater treatment/detention basin within the north eastern corner of Lot 1. Provisions for the conveyance of these flows from the subject site has been provided as part of the stormwater design (refer to approved SMP by BIOME consulting, ROL reference: 201700439).

- PD-B The Bridle Trail Reserve (Lot 970 on SP311148) - north. Flows from the central and north eastern portion of the site are currently discharge as overland flow to the existing Bridle Trail which bounds the site to the east. Flows continue north within the Bridle Trail and discharge into Talpa Street.

- PD-C The Bridle Trail Reserve (Lot 970 on SP311148) - south. Flows from the south eastern corner of the subject site currently discharge as overland flow to the existing Bridle Trail which bounds the site to the east. Flows continue south within the Bridle Trail and discharge into a Council Reserve (Lot 903 on SP192685) approximately 35 m south east of the subject site;



- PD-D1 The southern neighbouring freehold allotment (Lot 95 on RP187418). Flows from the south eastern portion of the site currently discharge as sheet flow across the common boundary with Lot 95. Flows continue in a south easterly direction to a central drainage line within Lot 903 which discharges to a Council Reserve (Lot 903 on SP192685).
- PD-D2 The southern neighbouring freehold allotment (Lot 95 on RP187418). Flows from the south western portion of the site currently discharge as sheet flow across the common boundary with Lot 95. Flows continue in a south easterly direction to a central drainage line within Lot 903 which discharges to a Council Reserve (Lot 903 on SP192685).

Ultimately all flows from the subject site will discharge into McCoy's Creek approximately 1km northeast of the subject site.

The existing discharge locations are shown on Drawing DWG-200 – Appendix B.

For hydrological assessment purposes, flows from PD-C, PD-D1, and PD-D2 combine with an external catchment from the neighbouring downstream allotment (Lot 95 on RP187418) and discharge into a Council Reserve (Lot 903 on SP192685) approximately 35 m south east of the subject site. This Point of Discharge (PD-CD) will be relied upon as an additional assessment point for comparison of peak discharge.

3.2 Existing Case – Internal Catchments

The subject site has been divided into six (6) internal catchment areas. The characteristic of the site's catchments are detailed in Table 3.1 below and have been delineated on Drawing 200 – Appendix B.

Table 3.1 Existing Case – Catchment Characteristic

Catchment ID		Area (ha)	Cover (%)	Discharge Condition	PD ID
Internal	A1	0.122	50 – Bushland 50– Cleared/Grassed	Sheet	PD-A1
	A2	0.202	100 – Bushland	Sheet & Channel	PD-A2
	B	0.381	100 – Bushland	Sheet & Channel	PD-B
	C	0.065	100 – Bushland	Sheet	PD-C, , PD-CD
	D1	0.195	100 – Bushland	Sheet	PD-D1, PD-CD
	D2	0.546	100 – Bushland	Sheet	PD-D2, PD-CD

3.3 Existing Case – *xpstorm* Runoff

The “Laurenson” routing method was applied to *xpstorm* for hydrological calculation and hydrograph generation. The contributing catchment was split into pervious (with 0% impervious fraction) and impervious (with 100% impervious fraction) areas. Adopted parameters for the Laurenson routing method include a Manning's roughness coefficient (n) for impervious and pervious areas respectively. Infiltration uniform losses have been applied to the hydrologic model based on information obtained from the Australian Rainfall and Runoff Data Hub tool (reference: <https://data.arr-software.org>).



Temporal Patterns and Rainfall Data

Site specific rainfall and temporal pattern data used in modelling was sourced from the Australian Rainfall and Runoff (ARR) Data Hub (2019). Refer to Appendix C for a summary of the data obtained.

Critical Storm Duration Assessment

The critical storm duration for each catchment was determined utilising the Ensemble Statistics Utility in *xpstorm*. From the critical storm duration, the median storm ensemble was utilised to determine peak flows for each respective catchment. Table 3.2 presents the critical storm duration and chosen median storm ensemble for each of the modelled catchments. Box and Whisker Plots showing the 1% AEP peak flows for the range of durations modelled is contained within Appendix D.

Table 3.2 Existing Case – Critical Storm Assessment

Catchment ID	Critical Storm	Annual Exceedance Probability (AEP)					
		39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
A1	Duration (min)	90	90	30	30	25	25
	Median Storm	2	10	8	8	4	5
A2	Duration (min)	90	30	30	30	30	15
	Median Storm	10	9	6	9	6	6
B	Duration (min)	90	30	30	30	25	15
	Median Storm	10	8	6	2	4	1
C	Duration (min)	90	30	30	30	15	15
	Median Storm	10	9	6	9	2	6
D1	Duration (min)	90	30	30	30	25	15
	Median Storm	2	5	8	8	4	1
D2	Duration (min)	90	90	30	30	25	25
	Median Storm	2	10	8	8	4	5
PD-CD	Duration (min)	90	60	30	30	25	25
	Median Storm	2	10	8	2	4	5

The tables below contain the modelling parameters relied upon and present the resulting peak discharges expected for each catchment. The flows reported at PD-CD represent the combined internal catchment inflows of Catchments C, D1, and D2 at this point.



Table 3.3 Existing Case – *xpstorm* Catchment Details

Catchment ID		Impervious Area		Pervious Area	
		Area (ha)	Slope (%)	Area (ha)	Slope (%)
Internal	A1	0.001	2.4	0.121	2.4
	A2	-	-	0.202	8.7
	B	-	-	0.381	7.9
	C	-	-	0.065	6.8
	D1	-	-	0.195	7.5
	D2	-	-	0.546	6.4

Table 3.4 Existing Case – Adopted Initial and Continuing Losses

Impervious Area			Pervious Area			
IL (mm)	CL (mm/hr)	Manning's n	AEP	IL (mm)	CL (mm/hr)	Manning's n
0	0	0.014	39.3%-4.9%	24.9*	2.9	0.040
			2%-1%	24.9*	2.9	

*IL-1% AEP Pre Burst Depth

Table 3.5 Existing Case – *xpstorm* Peak Discharge (m³/s)

Catchment/Point of Discharge	Annual Exceedance Probability (AEP)					
	39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
A1	0.017	0.027	0.033	0.039	0.049	0.056
A2	0.035	0.057	0.068	0.085	0.095	0.113
B	0.063	0.097	0.117	0.149	0.168	0.195
C	0.012	0.019	0.023	0.028	0.032	0.037
D1	0.033	0.054	0.063	0.080	0.089	0.106
D2	0.082	0.124	0.151	0.193	0.231	0.263
PD-A1	0.017	0.027	0.033	0.039	0.049	0.056
PD-A2	0.035	0.057	0.068	0.085	0.095	0.113
PD-B	0.063	0.097	0.117	0.149	0.168	0.195
PD-C	0.012	0.019	0.023	0.028	0.032	0.037
PD-D1	0.033	0.054	0.063	0.080	0.089	0.106
PD-D2	0.082	0.124	0.151	0.193	0.231	0.263
PD-CD	0.132	0.191	0.229	0.290	0.353	0.400

3.4 Existing Case – Model Validation (Rational Method)

For validation purposes, peak discharge values were calculated for 1% AEP using Rational Method and compared to those generated using *xpstorm*. The comparison is shown in Table 3.6 below and Rational calculations, which are in accordance with QUDM 2016 Section 4, are detailed within Appendix E.



Table 3.6 Existing Case – Peak Flow Validation *xpstorm* vs Rational

Catchment & Point of Discharge ID		<i>xpstorm</i> (m ³ /s)	Rational (m ³ /s)	Difference (%)
Internal	A1	0.056	0.066	-17.9
	A2	0.113	0.104	8.0
	B	0.195	0.193	1.0
	C	0.037	0.037	0.0
	D1	0.106	0.104	1.9
	D2	0.263	0.282	-7.2

The peak discharge calculated using Rational method is within 20% of the value generated using *xpstorm* for the 1% AEP. The modelling is therefore considered to be appropriately validated.



4 Proposed Development

The development involves reconfiguring the existing site into 24 lots (Figure 4.1). The development will include:

- An internal road network with pedestrian footpath; and
- A stormwater treatment area.

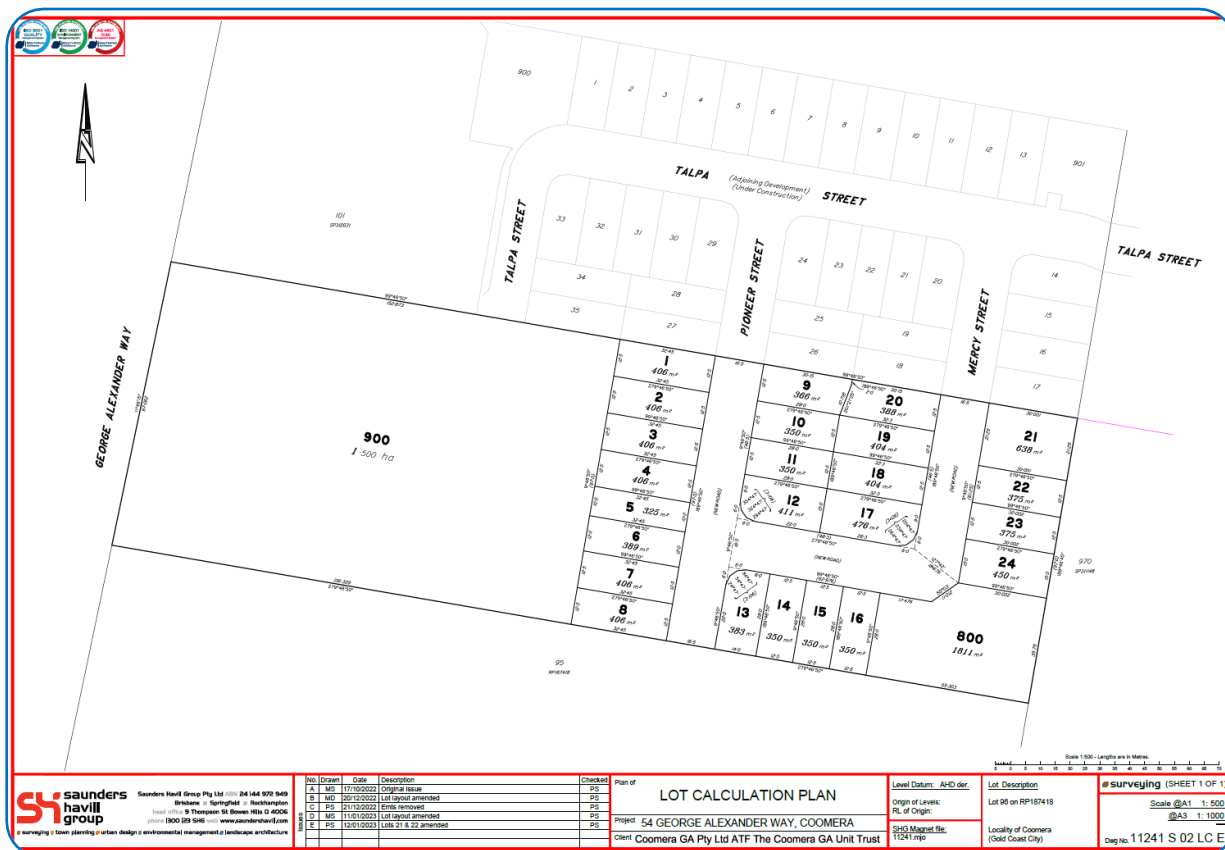


Figure 4.1 Proposed Development Layout



5 Developed Case (Unmitigated) – Hydrological Assessment

xpstorm was utilised to assess the site's developed hydrology and generate hydrographs and peak discharge rates at each PD. The following sections detail the parameters used in the *xpstorm* modelling. Catchments have been delineated on Drawing DWG-201 – Appendix B.

5.1 Developed Case – Internal Catchments

The site will undergo substantial earthworks to profile the development area. Underground piped drainage will be installed to collect minor stormwater flows, with major flows conveyed via an internal road network.

Four (4) major post development catchments have been delineated based on the preliminary civil designs by Arcadis.

The characteristic of the site's catchments are detailed in Table 5.1 below and have been delineated on Drawing 201 – Appendix B.

Table 5.1 Developed Case – Catchment Characteristic

Catchment ID		Area (ha)	Cover (%)	Discharge Condition	PD ID
Internal	A1	0.066	100 – Res Dev	Pipe – Road	PD-A1
	A2	0.143	100 – Res Dev	Pipe – Sheet	PD-A2
	B	1.195	100 – Res Dev	Pipe – Sheet	PD-D1, PD-CD
	C	0.107	100 – Res Dev	Pipe – Sheet	PD-D2, PD-CD

5.2 Developed Case – *xpstorm* Runoff

The “Laurenson” routing method was applied to *xpstorm* for hydrological calculation and hydrograph generation. The contributing catchment was split into pervious (with 0% impervious fraction) and impervious (with 100% impervious fraction) areas. Adopted parameters for the Laurenson routing method include a Manning's roughness coefficient (n) for impervious and pervious areas respectively. Infiltration uniform losses have been applied to the hydrologic model.

The tables below contain the modelling parameters relied upon and present the resulting peak discharges expected for each catchment. The flows reported at each PD represent the combined catchment inflows at this point.

Table 5.2 Developed Case – *xpstorm* Catchment Details

Catchment ID		Impervious Area		Pervious Area	
		Area (ha)	Slope (%)	Area (ha)	Slope (%)
Internal	A1	0.05	1.0	0.02	1.0
	A2	0.10	3.0	0.04	3.0
	B	0.84	5.0	0.36	5.0
	C	0.08	6.0	0.03	6.0



Table 5.3 Developed Case – Adopted Initial and Continuing Losses

Impervious Area			Pervious Area			
IL (mm)	CL (mm/hr)	Manning's n	AEP	IL (mm)	CL (mm/hr)	Manning's n
0	0	0.014	39.3%-4.9%	24.9*	2.9	0.040
			2%-1%	24.9*	2.9	

*IL-1% AEP Pre Burst Depth

Table 5.4 Developed Case (Unmitigated) – *xpstorm* Peak Discharge (m³/s)

Catchment/Point of Discharge	Annual Exceedance Probability (AEP)					
	39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
A1	0.019	0.024	0.027	0.031	0.036	0.048
A2	0.044	0.055	0.065	0.064	0.086	0.112
B	0.370	0.460	0.505	0.583	0.676	0.919
C	0.032	0.039	0.045	0.052	0.063	0.090
PD-A1	0.019	0.024	0.027	0.031	0.036	0.048
PD-A2	0.044	0.055	0.065	0.064	0.086	0.112
PD-D1	0.370	0.460	0.505	0.583	0.676	0.919
PD-D2	0.032	0.039	0.045	0.052	0.063	0.090
PD-CD	0.328	0.411	0.493	0.545	0.650	0.848

5.2.1 Validation of Flows

Table 5.5 illustrates that the peak discharges generated using both methods compare well for the 1.0 % AEP as both hydrological methods are within 10% of each other for the 1% AEP. The modelling is therefore considered to be appropriately validated.

Table 5.5 Developed Case – Peak Flow Validation *xpstorm* vs Rational

Catchment/Point of Discharge		<i>xpstorm</i> (m ³ /s)	Rational (m ³ /s)	Difference (%)
Internal	A1	0.048	0.057	-18.8
	A2	0.112	0.124	-10.7
	B	0.919	0.947	-3.0
	C	0.090	0.093	-3.3

5.2.2 Peak Discharge Comparison (m³/s) – Existing vs Developed (Unmitigated)

Table 5.6 presents a comparison of the peak discharges expected at each PD. Results indicate increases in peak discharge are expected at PD-D1 and PD-CD due to the creation of hardstand areas and increases in contributing catchments. Decreases in peak discharge to PD-A1, PD-A2, PD-C and PD-D2 are expected due to catchment area reductions. No flows are proposed for discharge at PD-B in the developed case.

It is noted that a slight increase in flows for the 39.3% event was predicted at both PD-A1 and PD-A2, however flows to these points of discharge remain below the stormwater design flow utilised as part of the development of Lot 1 on SP312031 (ROL reference: 201700439). As indicated within Table 5.4 of the approved Stormwater Management Plan by BIOME



Consulting for Lot 1, flows of 0.036 m³/s and 0.052 m³/s for the 39.3% AEP event were predicted and have been accommodated at PD-A1 and PD-A2 respectively.

Table 5.6 Peak Discharge Comparison (m³/s)

PD	Scenario	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
PD-A1	Existing	0.122	0.017	0.027	0.033	0.039	0.049	0.056
	Developed (Unmitigated)	0.066	0.019	0.024	0.027	0.031	0.036	0.048
	Difference		+0.002	-0.003	-0.006	-0.008	-0.013	-0.008
PD-A2	Existing	0.202	0.035	0.057	0.068	0.085	0.095	0.113
	Developed (Unmitigated)	0.143	0.044	0.055	0.065	0.064	0.086	0.112
	Difference		0.009	-0.002	-0.003	-0.021	-0.009	-0.001
PD-B	Existing	0.381	0.063	0.097	0.117	0.149	0.168	0.195
	Developed (Unmitigated)	0.000	0	0	0	0	0	0
	Difference		-0.06	-0.10	-0.12	-0.15	-0.17	-0.20
PD-D1	Existing	0.195	0.033	0.054	0.063	0.080	0.089	0.106
	Developed (Unmitigated)	1.19	0.370	0.460	0.505	0.583	0.676	0.919
	Difference		+0.337	+0.406	+0.442	+0.503	+0.587	+0.813
PD-D2	Existing	0.546	0.082	0.124	0.151	0.193	0.231	0.263
	Developed (Unmitigated)	0.11	0.032	0.039	0.045	0.052	0.063	0.090
	Difference		-0.05	-0.085	-0.106	-0.141	-0.168	-0.173
PD-CD	Existing	0.805	0.132	0.191	0.229	0.290	0.353	0.400
	Developed (Unmitigated)	1.444	0.328	0.411	0.493	0.545	0.650	0.848
	Difference		+0.196	+0.22	+0.264	+0.255	+0.297	+0.448



6 Stormwater Management – Operational Phase

In order to ensure that the operational phase objectives outlined within Section 1.1 of this report can be achieved, a network of stormwater management measures are proposed for inclusion within the development.

To achieve these objectives, both external and internal flows will need to be adequately managed prior to discharge to the site's points of discharge.

6.1 Schematic Design Plan

With consideration given to the existing site characteristics, the proposed development configuration and the range of available stormwater management control measures, a set of conceptual stormwater management designs have been proposed and detailed within the drawing set contained within Appendix B.

6.1.1 Internal Drainage

The site's internal catchments will be developed for residential allotments which will be graded so as to allow minor stormwater flows to be collected within inter-allotment and road piped drainage systems with higher flows conveyed with road reserves.

A single stormwater treatment basin has been proposed for the management of stormwater. Basin 1 will be combined bioretention/detention basin for quality and quantity management from post development Catchments A2, B, and C.

As part of the development proposal for the subject site, road connections have been proposed to future Pioneer Street and Mercy Street within the northern neighbouring development (Lot 1 on SP312031, ROL reference: 201700439). Developed flows from internal site Catchment A1 (minor and major) and major flows from Catchment A2 will be directed north due to site grading which allows connection to the beforementioned roads of Lot 1.

Minor flows (up to the 39.3% AEP) from Catchment A1 will be piped and connect to the 375 mm DIA stormwater stub provided at the interface of Pioneer Street (as shown on the approved Roadworks and Drainage Layout Plan by Arcadis, Appendix F), Major flows will be conveyed within the kerb and channel of Pioneer Street with all flows discharging to an approved stormwater detention/treatment basin within Lot 1, Basin A (refer to approved SMP by BIOME Consulting, dated June 2018 ref: BC17141).

Minor Flows (up to the 9.5% AEP) from Catchment A2 will be piped to the proposed site basin, Basin 1 for treatment and detention purposes. Major flows from this catchment will discharge north to Mercy Street conveyed via the kerb and channel of the road and discharging to a second approved basin within Lot 1, Basin B.

External undeveloped flows from the subject site were considered as part of the design of these approved basins (refer to approved SMP by BIOME Consulting, dated June 2018 ref: BC17141). An assessment of the development of these catchments has been undertaken within the following sections to ensure flows discharging from the development will not compromise on the approved basin designs within 66 George Alexander way.



6.2 Quantity Control – Detention

The proposed development will result in an increase in impervious and hardstand area and therefore an increase in peak discharge. A detention basin has been proposed to detain stormwater flows so as to ensure that there is no increase in discharge to downstream properties for all nominated AEP's.

The detention basin is to be located within the south eastern corner of the site with volume provided above the proposed bioretention extended detention.

6.2.1 *xpstorm* Modelling Parameters

xpstorm has been relied upon to size the required detention measures and develop appropriate outlet configurations.

xpstorm requires a depth area relationship to be defined when modelling an onsite detention (OSD). As part of the bottom of the detention basin will be used as a bioretention (separated via an internal bund), the depth area relationship has been modified to exclude the extended detention depth of 0.3m over the bioretention filter.

A summary of the total depth-area relationship applied to the storage node of the *xpstorm* model in the post-development (mitigated) scenario is contained in Table 6.1. The dimensions and proposed levels of the outlet structures used to mitigate the developed case peak discharge and achieve the required detention volumes are detailed in Table 6.2

Table 6.1 Depth Area Relationship

Detention ID	RL (m AHD)	Depth (m)	Surface Area (ha)
Basin 1	26.50	0.0	0.0200
	26.79	0.29	0.0234
	26.80	0.3	0.0468
	27.55	1.05	0.0777
	28.00	1.5	0.0996

Table 6.2 Outlet Structures

Detention Basin ID		Orifice	Outlet Pit(s) & Pipe(s)	Weir
Basin 1	Pit 1 (Outlet Control)	1x200 mm (H) x 300 mm (W) @ RL 26.5 m AHD 1x200 mm (H) x 300 mm (W) @ RL 27.15 m AHD	1 x 600x900 Crest @ RL 27.35 m AHD 1 x 375 mm dia RCP U.S.I.L. @ RL 25.30 m AHD	1 x 40 m Wide weir, crest @ RL 27.65 m AHD
	Pit 2 (Emergency Overflow)	-	1 x 900x900 Crest @ RL 27.53 m AHD 1x 450 mm dia RCP	

6.2.2 Modelling Results

The results of *xpstorm* modelling indicate that the inclusion of the basin along with the proposed catchment delineation and drainage design will mitigate the expected increases in peak discharge at the nominated points of discharge location during all nominated ARI events.



It is noted that the proposed drainage design will convey flows from developed Catchments B and C to detention/treatment Basin 1 which has a piped outlet to PD-CD. Therefore, flows will no longer discharge to PD-D1 or PD-D2 unless pipe blockage were to occur. The consequences of blockage has been considered within the Sensitivity Analysis of this report (refer to Section 6.2.4).

Table 6.3 to 6.7 present a comparison between the expected peak discharge/s during nominated ARI events for the pre- and post-development mitigated cases at the PDs. Figure 6.1 illustrates a comparison of the outlet hydrograph at PD-CD where the majority of site flow will ultimately discharge.

Table 6.3 Peak Discharge Comparison (m³/s) – PD-A1

Scenario	Contributing Catchments	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
Pre-Development	A1	0.121	0.017	0.027	0.033	0.039	0.049	0.056
Post-Development (Unmitigated)	A1	0.066	0.019	0.024	0.027	0.031	0.036	0.048
Post-Development (Mitigated)	A1	0.066	0.019*	0.024	0.027	0.031	0.036	0.048
Difference (Pre vs Post Mitigated)			+0.002*	-0.003	-0.006	-0.008	-0.013	-0.008

*As indicated within Table 5.4 of the approved Stormwater Management Plan by BIOME Consulting for Lot 1, external flows of 0.036 m³/s for the 39.3% AEP have been accommodated within approved Basin A design.

Table 6.4 Peak Discharge Comparison (m³/s) – PD-A2

Scenario	Contributing Catchments	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
Pre-Development	A2	0.202	0.035	0.057	0.068	0.085	0.095	0.113
Post-Development (Unmitigated)	A2	0.143	0.044	0.055	0.065	0.064	0.086	0.112
Post-Development (Mitigated)*	A2	0.143	-	-	0.013	0.022	0.032	0.052
Difference (Pre vs Post Mitigated)			-0.035	-0.057	-0.055	-0.063	-0.063	-0.061

*Mitigated due to pipe drainage design and redirection of flows

Table 6.5 Peak Discharge Comparison (m³/s) – PD-D1

Scenario	Contributing Catchments	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
Pre-Development	D1	0.195	0.033	0.054	0.063	0.080	0.089	0.106
Post-Development (Unmitigated)	B,C	1.19	0.370	0.460	0.505	0.583	0.676	0.919
Post-Development	B,C	1.19	-	-	-	-	-	-



(Mitigated)*								
Difference (Pre vs Post Mitigated)			-0.033	-0.054	-0.063	-0.080	-0.089	-0.106

*Flows diverted to PD-CD via piped outlet within Bridle Trail

Table 6.6 Peak Discharge Comparison (m³/s) – PD-D2

Scenario	Contributing Catchments	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
Pre-Development	C, D1, D2	0.805	0.132	0.191	0.229	0.290	0.353	0.400
Post-Development (Unmitigated)	B,C	1.444	0.328	0.411	0.493	0.545	0.650	0.848
Post-Development (Mitigated)*	B,C	1.444	-	-	-	-	-	-
Difference (Pre vs Post Mitigated)			-0.082	-0.124	-0.151	-0.193	-0.231	-0.263

*Flows diverted to PD-CD via piped outlet within Bridle Trail

Table 6.7 Peak Discharge Comparison (m³/s) – PD-CD

Scenario	Contributing Catchments	Contributing Catchment Area (ha)	Annual Exceedance Probability (AEP)					
			39.3% (2 yr ARI)	18.1% (5 yr ARI)	9.5% (10 yr ARI)	4.9% (20 yr ARI)	2.0% (50 yr ARI)	1.0% (100 yr ARI)
Pre-Development	D1	0.195	0.132	0.191	0.229	0.290	0.353	0.400
Post-Development (Unmitigated)	B,C	1.19	0.328	0.411	0.493	0.545	0.650	0.848
Post-Development (Mitigated)*	B,C	1.19	0.106	0.178	0.225	0.271	0.290	0.333
Difference (Pre vs Post Mitigated)			-0.026	-0.013	-0.004	-0.019	-0.063	-0.067

*Flows diverted to PD-CD via piped outlet within Bridle Trail

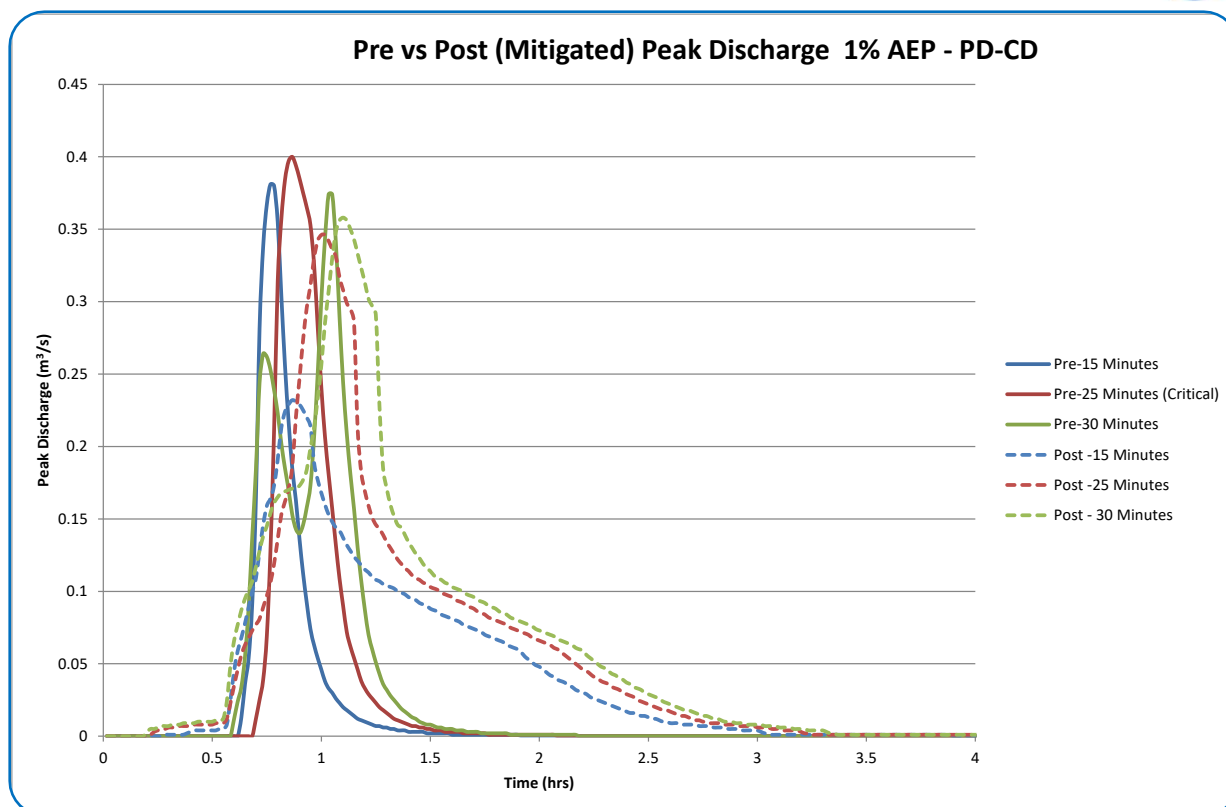


Figure 6.1 Comparison 1.0% AEP Hydrography at PD-CD

6.2.3 QUDM Minimum Design Safety Standards – Detention Depth

In accordance with the QUDM the depth of water in a detention basin is not to exceed 1.2 m during the 4.9% AEP. A freeboard of 300 mm should also be achieved, along with a weir flow depth of no greater than 300 mm.

Table 6.8 presents the peak water levels, depths and volumes expected within the detention during both the 4.9% and 1.0% AEP event. Based on the *xpstorm* modelling of the proposed post-development scenario, including the additional outlet riser and pipe, the design will not result in water depths outside the recommended design criteria.

Table 6.8 Detention Storage Details, Depths and Volumes (Basin A)

	4.9% AEP (20 yr ARI)	1.0% AEP (100 yr ARI)
Base Level (m AHD)	26.50	26.50
Top of Bund Level (m AHD)	28.00	28.00
Weir Level (m AHD)	27.65	27.65
Peak Water Surface (m AHD)	27.45	27.52
Peak Depth of Water (m)	0.95	1.02
Peak Volume (m^3)	449	507
Freeboard Achieved (m)	0.56	0.48
Depth of Weir Flow (m)	-	-

As water depths are expected to rise above 1.0 m within the detention basin during major events, in accordance with QUDM Section 5.12 it is recommended that a depth indicator be



installed within the basin with its zero level relative to the lowest point in the basin floor. Refer to Figure 6.3 below for typical depth indicator. Warning signs are also recommended to deter public access during rainfall events (refer to Figure 6.3 below).

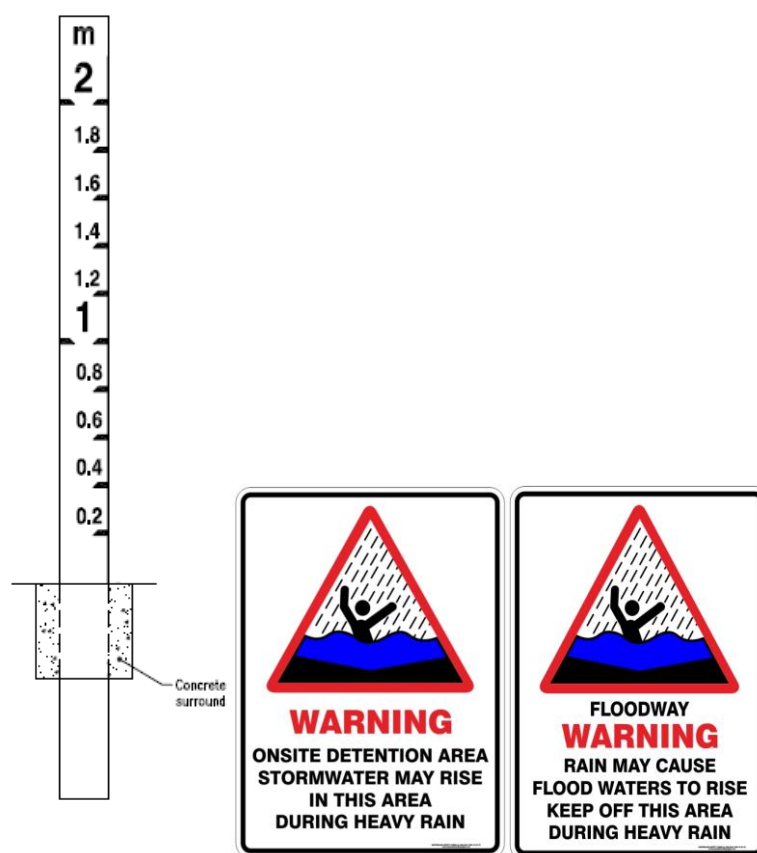


Figure 6.2 Typical Detention Basin Depth Indicator & Warning Signs (Source: Department of Traffic and Main Roads)

6.2.4 Sensitivity Analysis – Basin 1

In accordance with the requirements of QUDM Section 7.5, consideration has been given to the consequences of a fully blocked outlet pipe (of control Pit 1). Table 6.9 illustrates the expected peak water levels within the basin if the proposed pipe outlet of Control Pit 1 became fully blocked. In this event, water levels would increase in the basin with the majority of flow discharging firstly via the emergency overflow pit (Pit 2) and then secondly via the weir structure.

Table 6.9 Sensitivity Analysis Results for 1.0% AEP Event

Peak Water Level (m AHD)	Top of Bund (m AHD)	Depth of Flow over Emergency Pit 2 (m)	Depth of Weir Flow (m)
27.68	28.0	0.15	0.03

Based on the existing basin and weir configuration, peak water levels would not be expected to exceed the Top of Bund during the 1.0% AEP. The expected maximum depth of flow over the weir has been modelled at less than 0.3 m.



6.3 Lawful Point of Discharge

The criteria for determining a Lawful Point of Discharge (LPD) as specified within the Queensland Urban Drainage Manual (2016) is as follows:

- (i) Will the proposed development alter the site's stormwater discharge characteristics in a manner that may substantially damage a third party property?
 - If not, then no further steps are required to obtain tenure for a lawful point of discharge (assuming any previous circumstances and changes were lawful).
 - If there is a reasonable risk of such damage then consider (ii) or (iii).
- (ii) Is the location of the discharge from the development site under the lawful control of the local government or other statutory authority from whom permission to discharge has been received? This will include a park, watercourse, drainage or road reserve, stormwater registered drainage easement, or land held by local government (including freehold land).
 - If so, then no further steps are required to obtain tenure for a lawful point of discharge
 - If not, then consider issue (iii). A land owner or regulator may require that the developer obtain an authority to discharge as described in (iii) in order for the stormwater to ultimately flow to a location described in (ii).
- (iii) An authority to discharge over affected properties will be necessary. In descending order of certainty, an authority may be in the form of:
 - Dedication of a drainage reserve or park;
 - A registered easement for stormwater discharge/works; or
 - Written approval.

Each point of discharge has been assessed against the above criteria and it is considered that a Lawful Point of Discharge will be achieved at each discharge location. Provided that the design measures set out in this report are implemented it is not anticipated that substantial damage will be caused to a third party property at any discharge point. Additionally, all discharges will be directed into land under the control of Council.

6.4 Quality Control – Pollutant Reduction

In accordance with the State Planning Policy for Healthy Waters and the Queensland Water Quality Guidelines (2009), treatment measures have been included to achieve the minimum mean annual load based reductions of 80% for Total Suspended Solids (TSS); 60% for Total Phosphorus (TP), 45% for Total Nitrogen (TN), and 90% for Gross Pollutants (GP).

The Model for Urban Stormwater Improvement Conceptualisation (*MUSIC* v6) has been used to estimate the potential pollutant loads generated by the development and to size the proposed treatment measures. The following sections outline the parameters relied upon within the *MUSIC* v6 modelling.

It is noted that flows from developed Catchment A1 are directed north to approved Basin A within the development at 66 George Alexander Way (Lot 1 on SP312031). The approved Stormwater Management Plan for this site included Catchment A1 (referred to as 'Ext A' within the report) as an undeveloped ('Ground') contributing catchment to Basin A (Refer to Appendix G for *MUSIC* catchment plan from approved report). As such, an additional modelling scenario (referred to as 'Scenario 1') has been assessed within this section which



includes the approved basins within 66 George Alexander Way and updated source nodes to account for the development of Catchment A1.

6.4.1 Rainfall and Evapotranspiration Data

Rainfall and evapotranspiration data has been obtained from the Bureau of Meteorology (BOM) and is summarised within Table 6.10 below.

Table 6.10 Meteorological and Rainfall Runoff Data Reporting

Station	Hinze Dam (40584)
Period	1/01/1976 to 31/12/1985 (10 years)
Time step	6 minute
Mean annual rainfall (mm)	1,371
Evapotranspiration	1,420

6.4.2 Catchment Parameters

The developed site has been modelled as having an Urban Residential land use. Each internal catchment has been split into roof, road and ground level source nodes.

For Scenario 1, external catchment Ext A within the MUSIC model for 66 George Alexander Way (corresponding to the Approved SMP by BIOME Consulting) was modified to represent the development of catchment A1. As catchment A1 forms part of catchment Ext A, the remaining undeveloped portion was modelled as pervious ground area. The remaining area of the development site contributing flows to PD-CD was modelled as Scenario 2.

Table 6.11 summarises the sub-catchment areas and Drawing DWG-210 – Appendix B presents the sub-catchment delineation. The adopted pollutant export and runoff parameters for each sub catchment are based on data from the Water by Design *MUSIC* v6 Modelling Guidelines (2010), as summarised in Tables 6.12 and 6.13.

Table 6.11 MUSIC v6 Sub-Catchment Areas

Modelling Scenario	Catchment ID	Land Use	Area (ha)	Total Impervious (%)
Scenario 1 – 66 George Alexander Way (Updated Catchments)	Catchment A1 (updated)	Urban Residential – Roof	0.025	100
		Urban Residential – Road	0.022	70
		Urban Residential – Ground Level	0.019	30
	Ext A (remain)	Urban Residential – Ground Level	0.157	0
Scenario 2 – Remainder of Development site to PD-CD	Catchment A2	Urban Residential – Roof	0.050	100
		Urban Residential – Road	0.024	70
		Urban Residential – Ground Level	0.069	30
	Catchment B	Urban Residential – Roof	0.475	100
		Urban Residential – Road	0.298	70
		Urban Residential – Ground Level	0.422	30
	Catchment C	Urban Residential – Roof	0.050	100
		Urban Residential – Road	0.028	70
		Urban Residential – Ground Level	0.030	30
	Total (ha)	-	1.51	-



Table 6.12 Rainfall Runoff Parameters

Parameter	All Nodes
Landuse	Residential
Rainfall threshold (mm)	1
Soil storage capacity (mm)	500
Initial storage (% capacity)	10
Field capacity (mm)	200
Infiltration capacity coefficient a	211
Infiltration capacity exponent b	5.0
Initial depth (mm)	50
Daily recharge rate (%)	28
Daily baseflow rate (%)	27
Daily deep seepage rate (%)	0

Table 6.13 Pollutant Export Parameters (log mg/L)

Flow Type	Surface Type	Total Suspended Solids (log ₁₀ mg/L)		Total Phosphorous (log ₁₀ mg/L)		Total Nitrogen (log ₁₀ mg/L)	
		Mean	Std Dev.	Mean	Std Dev.	Mean	Std Dev.
Residential							
Base Flow	Roof	N/A	N/A	N/A	N/A	N/A	N/A
	Road	1.00	0.34	-0.97	0.31	0.20	0.20
	Ground	1.00	0.34	-0.97	0.31	0.20	0.20
Storm Flow	Roof	1.30	0.39	-0.89	0.31	0.26	0.23
	Road	2.43	0.39	-0.30	0.31	0.26	0.23
	Ground	2.18	0.39	-0.47	0.31	0.26	0.23

6.4.3 Treatment Measures

In order to determine the design requirements for the necessary stormwater treatment measures, key “Treatment Nodes” were added to the *MUSIC v6* model. The following sections outline the modelling parameters relied upon for each “Treatment Node”.

Bioretention

It is proposed that bioretention measures be incorporated into the development layout to provide the necessary load based reductions. Bioretention systems operate by capturing and retaining water in an extended ponding area (no more than 400 mm deep for a maximum of four (4) days to prevent anaerobic conditions, plant death and insect breeding), before filtering through a soil media. The devices remove pollutants via the following physical processes:

- Sedimentation in the extended detention storage;
- Filtration by filter media;
- Nutrient uptake by biofilms;
- Nutrient adsorption and pollutant decomposition by soil bacteria; and
- Adsorption of metals and nutrients by filter particles (Somes & Crosby, 2007).



In accordance with Water by Design Guidelines, Table 6.14 summarises the treatment node parameters used in the *MUSIC* v6 modelling whilst Figure 6.3 provides typical design parameters for the proposed bioretention device. The parameters relied upon for modelling Bioretention Basin A within Scenario 1 are consistent with Table 6.12 of the approved SMP for 66 George Alexander Way.

Table 6.14 Bioretention Parameters

Bioretention Parameter	Basin A (Scenario 1)	Basin 1 (Scenario 2)
Drainage Profile (Type 1 = Saturated Zone, Type 2 = Sealed, Type 3 = Conventional, Type 4 = Pipeless)	Type 3	Type 3
Surface area (m ²)	130	145
Extended detention depth (m)	0.3	0.3
Filter area (m ²)	110	130
Unlined filter media perimeter (m)	0.01	0.01
Saturated hydraulic conductivity (mm/hr)	200	200
Filter depth (m)	0.6	0.6
TN content of filter media (mg/kg)	400*	400*
Proportion of organic material in filter (%)	< 5	< 5
Orthophosphate content of filter media (mg/kg)	30*	30*
Is the base lined?	Yes	Yes
Effectiveness of plant TN removal	Effective	Effective
Overflow weir width (m)	Surface Area/10	Surface Area/10
Exfiltration rate (mm/hr)	0.00	0.00
If an exfiltration rate has been used, have node water balance losses been used in calculation of treatment train effectiveness?	N/A	N/A
If exfiltration rate has been used, is the exfiltration rate justified?	N/A	N/A
Underdrain present?	Yes	Yes
Submerged zone with carbon present?	No	No
Depth of submerged zone (m)	N/A	N/A
Confirmation that K and C* remain default?	Yes	Yes
Sediment Forebay Required (>2 ha contributing catchment)	N/A	N/A

*As per Healthy Land and Water Recommendations for MUSICv6 modelling

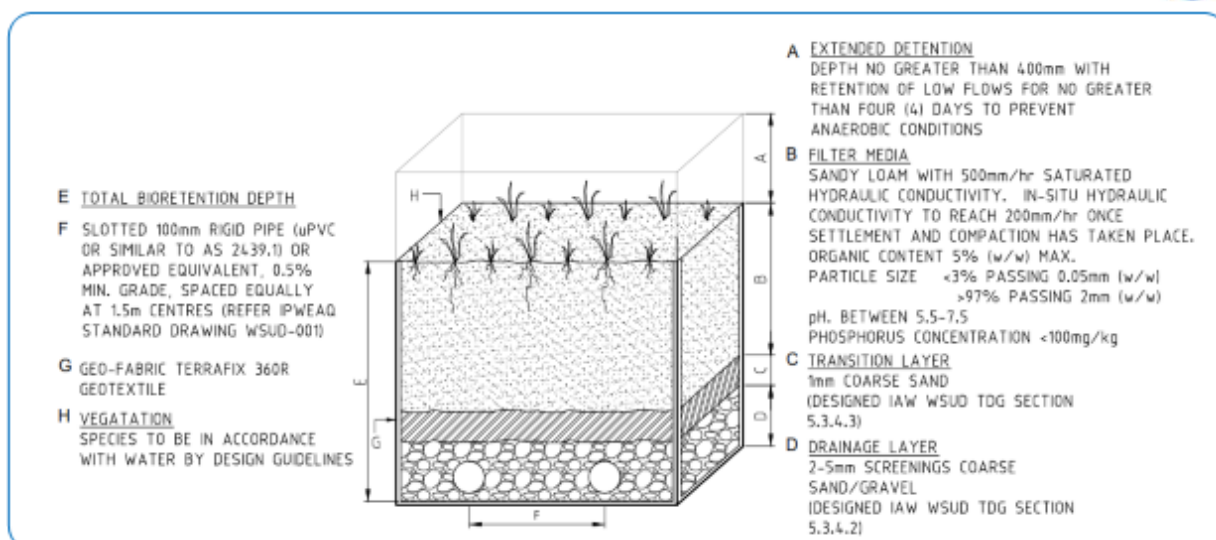


Figure 6.3 Bioretention specifications

Coarse Sediment Forebay

As the contributing catchment to the bioretention measure will be less than 2 ha no coarse sediment pre treatment is required however scour protection will be installed at each piped discharge point into the bioretention.

6.4.4 Modelling Results

Results of the *MUSIC* v6 modelling for the treatment train effectiveness are summarised in Table 6.15. The results indicate the 80%, 60%, 45% and 90% reduction target for TSS, TP, TN and GP respectively are achieved for the rainfall data set simulated for all flows captured and conveyed to the proposed bioretention basin. A screen capture of the *MUSIC* v6 modelling results is included as Figure 6.4 and 6.5.

For Scenario 1, modelling indicates that the development of Catchment A1 will not hinder the treatment efficiency of 'Basin A' within the approved development at 66 George Alexander Way.

Table 6.15 Treatment Train Effectiveness

Catchment/PoD ID	Pollutant	Inflows (kg/yr)	Outflows (kg/yr)	Reduction (kg/yr)	Reduction (%)	Water Quality Objective (%)
Scenario 1 – 66 George Alexander Way (Updated Catchments)	TSS	3,408	630	2,778	81.5	80.0
	TP	7.0	1.9	5.1	73.3	60.0
	TN	42.0	20.7	21.2	50.6	45.0
Scenario 2 – Remainder of Development site to PD-CD	TSS	2,256	447	1,809	80.2	80.0
	TP	4.8	1.4	3.5	71.5	60.0
	TN	29.9	15.0	14.8	49.7	45.0

NOTE: All simulations have been run with pollutant export estimation set to "stochastic generation".

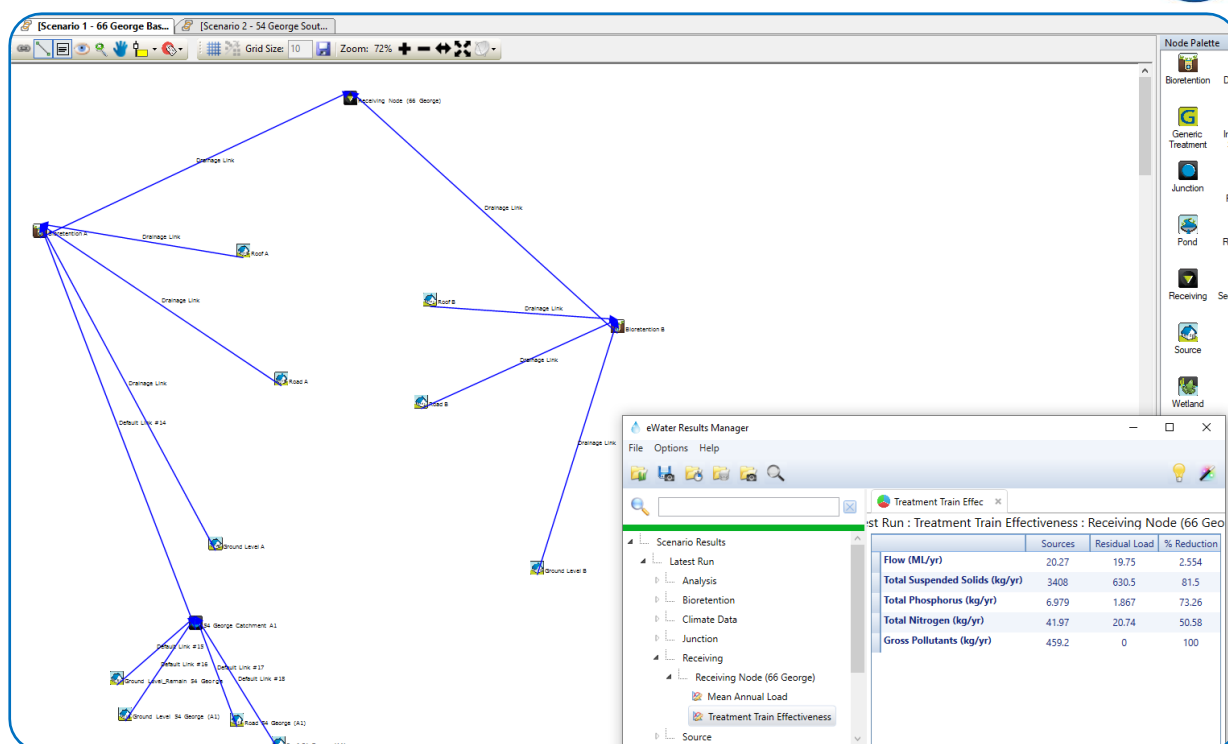


Figure 6.4 Screen Capture of MUSIC Modelling Results (Scenario 1 – 66 George Alexander Way with Updated Catchments)

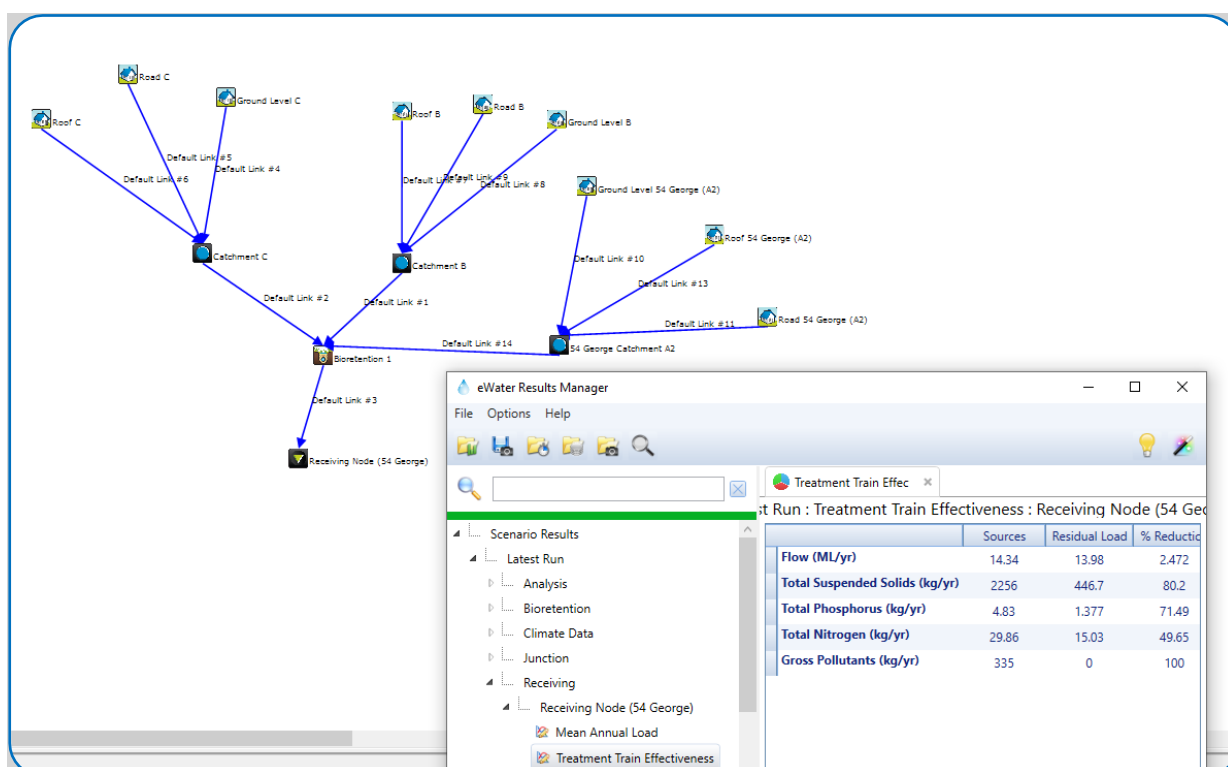


Figure 6.5 Screen Capture of MUSIC Modelling Results (Scenario 2 – Remainder of Development site to PD-CD)



6.6 Bioretention Basin Staged Construction and Establishment

In accordance with the Water by Design Construction and Establishment Guidelines: Swales Bioretention Systems and Wetlands (C & E Guidelines), inflow of sediment-laden runoff during the building stage is a major risk to the successful and long-term functioning of bioretention systems.

During the building phase of developments, sediment can seal the surface of the filter media, move into and clog the filter media and accumulate in the under-drainage. Within the C & E Guidelines, there are four (4) options recommended to overcome the challenges associated with delivering bioretention systems. These generally include the following options:

- Option 1: Surface Protection
- Option 2: Bypass flows and early establishment of vegetation;
- Option 3: Sediment basin and bioretention function; and
- Option 4: Leave as sediment basin.

Any of the above options will ensure adequate protection of the bioretention during the building phase and are suitable for implementation.

It is proposed that Option 4 method for staged construction and establishment of the bioretention system is to be implemented for the proposed development. This method will be progressed in three (3) stages as follows:

- | | |
|---------|---|
| Stage 1 | Civil Works – earthworks and bulking out of basin followed by the installation of the hydraulic structures; |
| Stage 2 | Building Phase Protection – the system operates as a sediment basin; and |
| Stage 3 | Civil Construction and Landscape Establishment <ul style="list-style-type: none">▪ when 80-90% of building in the catchment is complete, removal of the accumulated sediment;▪ finalisation of the civil works and installation of the under-drainage and bioretention media; and▪ planting and establishment of vegetation in the bioretention system. |

The details of the procedure and order of construction for the Option 4 method are contained within the C & E Guidelines Section 3.10. If an alternative option is found to be more suitable for the site, construction methods and steps should be referenced from the C & E Guidelines.

6.7 Water Quality Monitoring and Maintenance

In order to ensure that the stormwater management measures detailed within this management plan function correctly in the long term and to ensure that impacts to downstream receiving environments are mitigated, appropriate operational phase water maintenance and monitoring is to be undertaken. The following sections detail the minimum requirements for each specific control device.

6.7.1 Operational Phase Water Quality Monitoring

Monitoring during the operational phase will be undertaken to determine the impact of activities on the receiving waters. Surface water quality monitoring is to be undertaken at discharge points from the site. Samples should be collected for TSS, pH, dissolved oxygen (DO), TP, TN and hydrocarbons. Sampling is to be performed in accordance with procedures



set out in the Environmental Protection Authority's Water Quality Sampling Manual. A NATA registered laboratory is to be used to analyse the collected samples.

Table 6.17 specifies the sampling parameters and frequencies required. Results of the monitoring program are to be compiled monthly into an ongoing Water Quality Monitoring Report. A copy of the report and monitoring data is to be maintained at all times.

Table 6.17 Operational Phase Water Quality Parameters and Sampling Frequencies

Sampling Parameter	Sampling Frequency
TSS	Water quality monitoring will be completed following a rainfall event of 25 mm or greater in any 24 hour period monthly for a minimum period of 12 months, or as specified by the Local Authority conditions of approval for the development.
pH	
Dissolved Oxygen (DO)	
TN	
TP	
Hydrocarbons	

Table 6.18 sets the water quality criteria for water discharged from the development site.

Table 6.18 Operational Phase Water Quality Discharge Criteria

Water Quality Parameter	Discharge Criteria
TSS	No net deterioration of the downstream receiving environment as a result of discharge from the development.
Turbidity (NTU)	
pH	
DO	
TN	
TP	
Hydrocarbons	

6.7.2 Operational Phase Device Maintenance

In order for each of the proposed stormwater treatment devices to achieve the necessary pollutant removal efficiencies regular maintenance is necessary. Poorly maintained devices will result in under performance and in some instances may cause leaching of pollutants to downstream receiving environments. Based on the proposed treatment train Table 6.19 details appropriate maintenance regimes for each treatment device.

Table 6.19 Operational Phase Device Maintenance Requirements

Treatment Device	Maintenance Action
Bioretention	Routine inspection to identify obvious increased sediment deposition. Remove sediment when flow within the bioretention is impeded or smothering of vegetation occurs.
	Routine inspection of inlet and outlet pit to identify any areas of scour, litter build up or blockages.
	Tilling of the bioretention surface if there is evidence of clogging.
	Regular watering of vegetation until plants are established.
	Removal and management of invasive weeds.
	Removal and replacement of dead and dying vegetation.
	Regular inspection and removal of litter and gross pollutants.
	Resetting (i.e. complete reconstruction) of the bioretention will be required if the flow within the bioretention system is reduced by 25% due to an accumulation of sediment.



Detention Basin Area	Routine inspection to identify obvious increased sediment deposition. Remove sediment if there is any sign of smothering of vegetation. If necessary reprofile base and revegetate.
	Routine inspection of inlet and outlet structures to identify any areas of scour, litter build up or blockages.
	Regular watering of vegetation until plants are established.
	Removal and management of invasive weeds.
	Removal and replacement of dead and dying vegetation.
	Regular inspection and removal of litter and gross pollutants.

All material removed during maintenance, whether solid or liquid, is to be disposed of in a manner that does not cause ongoing soil erosion or environmental harm.



7 Conclusions

The report has been prepared on behalf of Coomera GA Pty Ltd and presents a comprehensive review of available Stormwater Quality Improvement Devices (SQID) and stormwater Best Management Practices (BMP) to ensure that the proposed development adequately addresses the management of stormwater quantity and quality during the operational phase of the development.

The design includes the construction of a bioretention basin, with a 130 m² filter area, within the lower south eastern corner of the site has been shown to achieve pollutant removal efficiencies of 80%, 60%, 45% and 90% for TSS, TP, TN and gross pollutants respectively for Catchments A2, B and C.

The proposed basin design includes an estimated detention volume of 507 m³. Modelling of this detention basin and its associated outlet structures indicate that pre-developed flows can be maintained for all nominated ARI events at the points of discharge

As part of the development proposal for the subject site, road connections have been proposed to future Pioneer Street and Mercy Street within the northern neighbouring development (Lot 1 on SP312031, ROL reference: 201700439). Developed flows from internal site catchment A1 and major flows from catchment A2 will be directed north due to site grading which allows connection to the beforementioned roads of Lot 1. Both Pioneer Street and Mercy Street convey flows to two (2) approved treatment/detention basins within Lot 1. An assessment of the developed catchments within the subject site has been undertaken to ensure flows discharging from the development will not compromise on the approved basin designs within 66 George Alexander way. Modelling indicates flows will be reduced from the design flows assumed for the approved basin designs, and the development of Catchment A1 will not hinder the treatment efficiency of 'Basin A' within the approved development.



8 RPEQ Certification

I am aware that Council may rely upon the contents and findings of this assessment for the purposes of development assessment. In my opinion, the Council can rely upon the information contained within the report and there are no reservations or qualifications in respect to the information other than set out in the report.

I confirm that if the design parameters set out in this report are included within the development:

- there should be no worsening in peak discharge, as a result of the proposed development that would result in actionable damage to downstream properties; and
- stormwater pollutant load reductions in accordance with best practice should be achieved.

Brad Comley

RPEQ 17706

01.02.23

DATE



9 References

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Appendix A

Healthy Waters Code



City Plan code template

This code template supports the preparation of a development application against either the acceptable outcome(s) or performance outcome(s) contained in the code. Development assessment rules are outlined in **Section 5.3.3** of the City Plan.

Please note:

For assessment against the overall outcomes, refer to the appropriate code.

Impact assessable development requires assessment against the strategic framework prior to using this template.

9.4.5 Healthy waters code

9.4.5.1 Application

This code applies to assessing material change of use or reconfiguring a lot for development where indicated within **Part 5 Tables of assessment** unless either of the following circumstances apply:

- (1) No increase in impervious area is required onsite for the development.
- (2) A stormwater quality and quantity management plan previously approved by the Council has been fully implemented within the existing development layout.

Note: Where a development proposal meets either (1) and (2) above, this code is not applicable.

When using this code, reference should be made to **Section 5.3.2** and, where applicable, **Section 5.3.3**, in **Part 5**.

9.4.5.2 Purpose

- (1) The purpose of the Healthy waters code is to protect the quality of the city's waters from the impacts of development.
- (2) The purpose of the code will be achieved through the following overall outcomes:
 - (a) Urban stormwater quality management, wastewater management, and management of waters are based on the following principles:
 - (i) Development and construction activities are conducted in accordance with design objectives to achieve the water quality objectives, as specified in the *Environmental Protection (Water) Policy 2009*.
 - (ii) The ongoing management of urban stormwater quality incorporates design objectives that reflect the regional climate and the site's landscape characteristics.
 - (iii) Development is undertaken in accordance with best practice environmental management.
 - (iv) Development avoids adverse impacts on the City of Gold Coast's waters or, where this is not feasible, adverse impacts are minimised.
 - (b) Water resource catchments are protected from contamination by chemicals.
 - (c) The drainage capacity of the Woongoolba Flood Mitigation Scheme Area for rainfall events up to 1 in 10 year 72 hours is maintained (contained within the Scheme drains within a 4 day period) and this capacity is not be eroded due to cumulative impact of development.

9.4.5.3 Criteria for assessment



Table 9.4.5-2: Healthy waters code – for assessable development

Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome
Stormwater quality		
PO1 Development appropriately manages stormwater quality to: (a) protect natural ecosystems; (b) integrate stormwater treatment into the urban landscape; (c) protect water quality; (d) reduce runoff and peak flows; and (e) meet the water quality objectives and environmental values for Queensland waters. Note: Water quality objectives and environmental values for Queensland waters are contained within <i>Schedule 1 of the Environmental Protection (Water) Policy 2009</i> . Water quality objectives are locally specific and vary between and within river catchments.	AO1.1 Where development is: (a) for a dwelling house, dual occupancy or multiple dwelling on a lot less than 5000m ² ; or (b) light industry or business activity on a lot less than 2500m ² , it complies with the 'Deemed to comply' requirements detailed in the Stormwater quality management guidelines in SC6.9 City Plan policy – Land development guidelines .	
	AO1.2 Where development is: (c) for a dwelling house, dual occupancy or multiple dwelling on a lot equal to or more than 5000m ² but less than 1.25 ha; or (d) light industry or business activity on a lot equal to or more than 2500m ² but less than 1.25 ha; (e) it complies with the 'Deemed to comply' requirements detailed in the Stormwater quality management guidelines in SC6.9 City Plan policy – Land development guidelines .	
	AO1.3 Where development is not listed in AO1 a Stormwater Quality Management Plan is prepared by a suitably-qualified person in accordance with the Stormwater quality management guidelines in	COMPLIES WITH AO1.3 This SMP has been prepared by a suitably-qualified person in accordance with the Stormwater quality management guidelines in SC6.9 City Plan policy – Land development guidelines.



Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome
	SC6.9 City Plan policy – Land development guidelines.	
Stormwater quantity		
PO2 Stormwater quantity management outcomes demonstrate no adverse impact on stormwater flooding or the drainage of properties external to the subject site.	AO2 A stormwater quantity management plan is prepared by a suitably qualified person and demonstrates: (f) achievable stormwater quantity control measures for discharge during both the construction and operational phases of development designed in accordance with the <i>Queensland Urban Drainage Manual (QUDM)</i> unless subject to specific requirements of SC6.9 City Plan policy – Land development guidelines ; (g) on-site detention systems that are designed to restrict peak outflows for Q2, Q5, Q10, Q20 Q50 and Q100 to pre-development conditions.	COMPLIES WITH AO2 This SMP has been prepared by a suitably-qualified person in accordance with QUDM and presents stormwater quantity control measures to ensure pre-development conditions are maintained during nominated storm events.
Woongoolba Flood Mitigation Scheme Catchment Area		
PO3 In the Woongoolba Flood Mitigation Scheme Catchment Area, shown on the Water catchments and dual reticulation overlay map , peak outflow and its timing for Q2, Q5 and Q10 for rainfall events up to 72 hours does not change as a result of development.	AO3 No acceptable outcome provided.	N/A
Protection of natural flows (discharge)		
PO4 Construction and operational activities	AO4 Development achieves the Frequent	COMPLIES WITH AO4 Bioretention basin has been included to ensure that frequent flow management is



Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome
avoid or minimise adverse impacts of altered stormwater quality and quantity.	Flow Management and Waterway Stability Management design objectives as stated within <i>Chapter 2 – Section 2.4.2 of the Urban Stormwater Quality Planning Guidelines 2010</i>. Note: A site Stormwater Quality and Quantity Management Report prepared by a suitably qualified person is Council's preferred method required to be submitted to Council to address Acceptable outcome AO6. The intent in the above guidelines (<i>Urban Stormwater Quality Planning Guidelines 2010</i>) can be achieved by adopting Water Sensitive Urban Design (WSUD) concepts within the development.	adequately addressed.
Wastewater management		
PO5 Development does not discharge wastewater to receiving waters or areas external to the site unless demonstrated to be the best-practice environmental management for that site and takes into consideration: (h) the applicable water quality objectives for the receiving waters; and (i) the potential adverse impact on ecosystem health of receiving waters.	AO5 Where the development involves the discharge of wastewater, a Wastewater Management Plan (WWMP) is prepared, demonstrating compliance with the performance outcome, by a suitably qualified person and submitted to the Council, detailing all of the following: (j) wastewater type; (k) climatic conditions; (l) water quality objectives; (m) best-practice environmental management; (n) waste management hierarchy; and (o) the WWMP provides for the management of wastewater in accordance with a wastewater	



Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome
	management hierarchy that: (i) avoids wastewater discharge to waterways; or (ii) if wastewater discharge to the environment cannot practicably be avoided wastewater discharge to waterways is minimised through re-use, recycling, recovery and treatment for disposal to sewer, surface water and groundwater.	



Performance outcomes	Acceptable outcomes	Does the proposal meet the acceptable outcome? If not, justify how the proposal meets <u>either</u> the performance outcome or overall outcome
Erosion and sediment control (ESC)		
PO6 Development does not cause erosion or allow sediments to leave the site.	AO6 An Erosion hazard assessment completed in accordance with the criteria in Table 9.4.5-3 is undertaken to establish the level of risk for soil erosion and sediment pollution to the environment. Where the Erosion hazard assessment has a risk score less than or equal to 10: A deemed to comply report is prepared by a suitably qualified person for Council approval, including conceptual location and design drawings of each treatment measure in plan and section views, in accordance with the <i>Best Practice Erosion and Sediment Control: International Erosion Control Association, (IECA) 2008, Australasia Chapter 2008</i> . Where the Erosion hazard assessment has a risk score greater than 10: A conceptual erosion and sediment control plan (ESCP) is prepared by a suitably qualified person for Council approval in accordance with the <i>Best Practice Erosion and Sediment Control: International Erosion Control Association, (IECA) 2008, Australasia Chapter 2008</i> .	An Erosion hazard assessment has been completed and a total score of 14 was approximated for the site. Therefore a conceptual erosion and sediment control plan (ESCP) prepared by a suitably qualified person in accordance with the Best Practice Erosion & Sediment Control: International Erosion Control Association, (IECA) 2008. It is considered this requirement be met in conjunction with the operational works application (via condition).



Erosion hazard assessment (Table 9.4.5-3)

Controlling factor	Points	Score
9.1.1 Average slope of the whole site prior to operational works		
Slope less than 2%	0	
More than or equal to 2% but less than 5%	1	
More than or equal to 5% but less than 10%	2	
More than or equal to 10% but less than 15%	4	
More than or equal to 15%	5	High risk
9.1.2 Soil type (to be disturbed)		
Gravels and sandy soils	1	
Sandy loam	2	
Clays on flood plains	3	
Shallow soils on slopes	4	
Clays on slopes greater than 5%/imported fill or untested fill	5	High risk
9.1.3 Anticipated duration of site disturbance		
Duration less than 2 weeks	0	
More than 2 weeks but less than 3 months	2	
More than 3 months but less than 6 months	4	
More than 6 months	5	High risk
9.1.4 Anticipated erosive rainfall risk during site disturbance		
Low (monthly average rainfall less than 45 mm)	0	
Moderate (monthly average rainfall 46 - 100 mm)	1	
High (monthly average rainfall 101 - 225 mm)	2	
Very high (monthly average rainfall 226 - 1500 mm)	4	
Extreme (monthly average rainfall more than 1500 mm)	5	High risk
9.1.5 Off-site sediment control (down-slope of the soil disturbance)		
Score 1 point if there is no purpose-built sediment trap (e.g. sediment basin, gross pollutant trap or purpose-built wetland).	1	
9.1.6 Run-off entering the site		
Score 1 point if stormwater run-off is not diverted from entering the site or away from soil disturbance.	1	
9.1.7 Extent of site disturbance		
Score 2 points if the building works requires reshaping of the ground surface.	2	
9.1.8 Total Score		
Note: High erosion risk - if score 11 or greater, or five for any factor.	14	

This Erosion Hazard Assessment [form](#) is adapted from the Best Practice Erosion and Sediment Control, International Erosion Control Association (Australasia), IECA 2008 Appendix H - [Building](#) Sites, the Brisbane City [Council](#) Erosion Hazard Assessment [Form](#) and Attachment 2 to the QDC Draft Part 16 Erosion and Sediment Control.



Appendix B

Stormwater Management Design Drawings

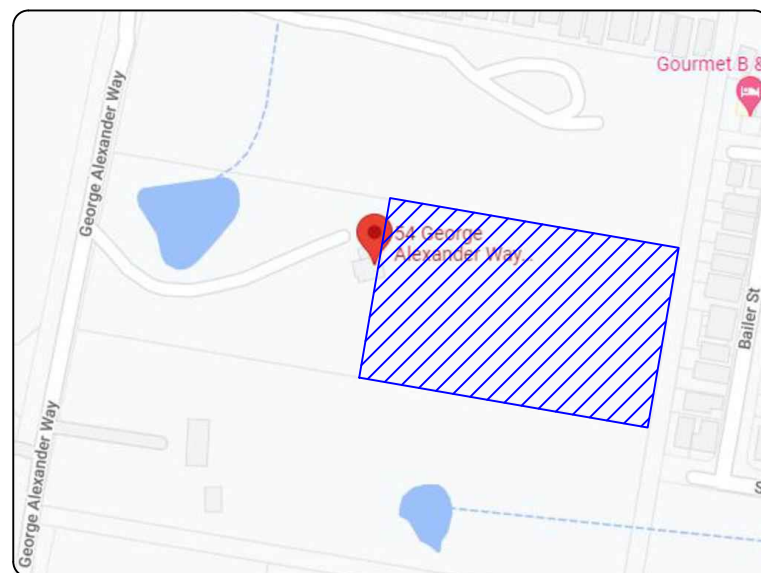
CONCEPTUAL STORMWATER MANAGEMENT DESIGN DRAWINGS

54 GEORGE ALEXANDER WAY, COOMERA

for
Coomera GA Pty Ltd

Project No: BC-22167

February 2023

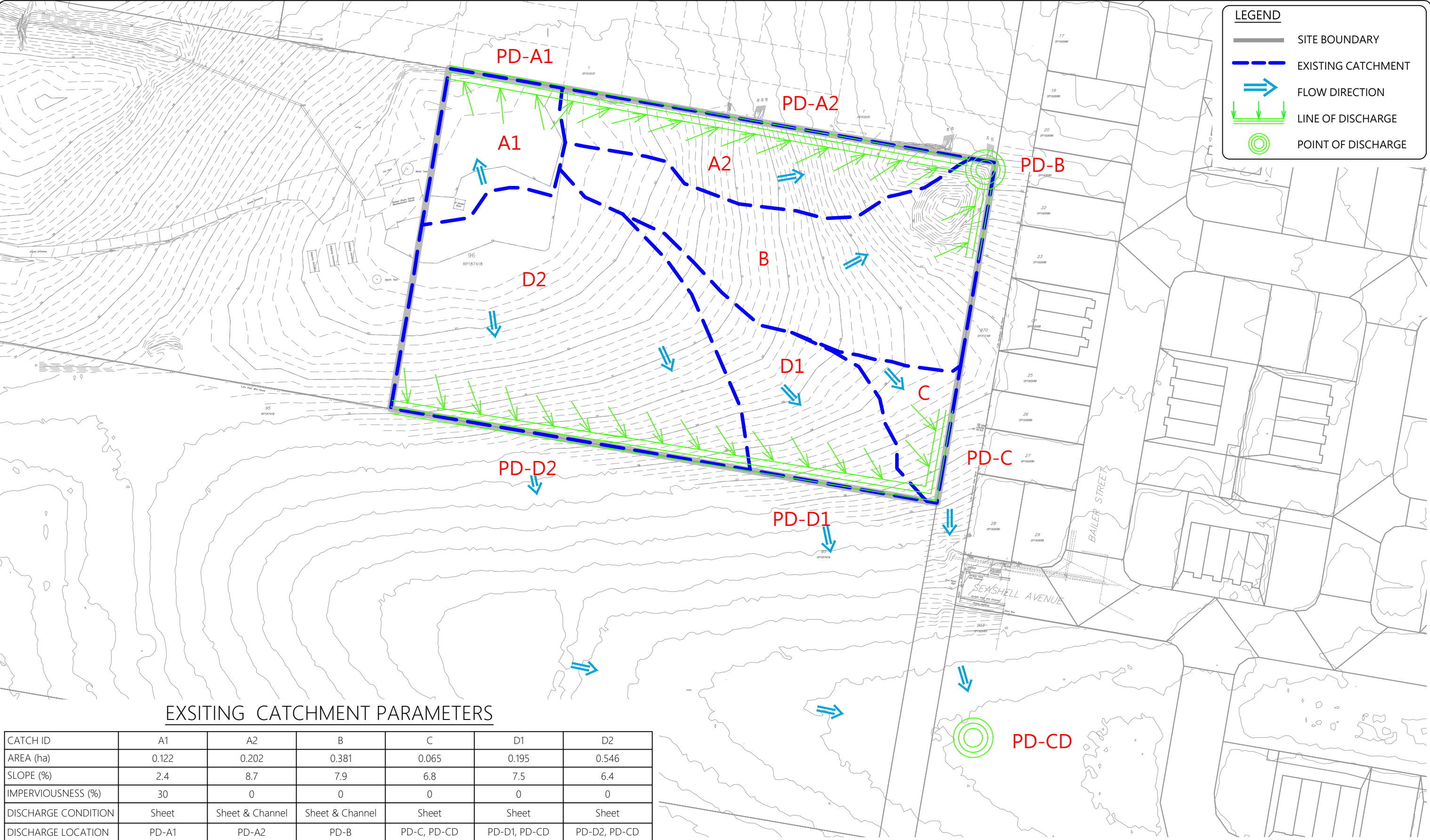


Site Location

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ABN 86 166 087 476

SCHEDULE OF DRAWINGS

Drawing No.	Drawing Title
DWG - 100	LOCALITY AND DRAWING INDEX PLAN
DWG - 200	EXISTING CATCHMENT PLAN
DWG - 201	DEVELOPED CATCHMENT PLAN
DWG - 300	OPERATIONAL CONTROL PLAN
DWG - 310	BIORETENTION / DETENTION BASIN 1 - SECTION DETAILS
DWG - 340	BIORETENTION FILTER MEDIUM AND UNDERDRAINAGE DETAILS
DWG - 350	BIORETENTION STANDARD NOTES



EXSITING CATCHMENT PARAMETERS

CATCH ID	A1	A2	B	C	D1	D2
AREA (ha)	0.122	0.202	0.381	0.065	0.195	0.546
SLOPE (%)	2.4	8.7	7.9	6.8	7.5	6.4
IMPERVIOUSNESS (%)	30	0	0	0	0	0
DISCHARGE CONDITION	Sheet	Sheet & Channel	Sheet & Channel	Sheet	Sheet	Sheet
DISCHARGE LOCATION	PD-A1	PD-A2	PD-B	PD-C, PD-CD	PD-D1, PD-CD	PD-D2, PD-CD

DATE
02.02.23

PROJECT No. :
BC-22167

DRAWING No. :
DWG-200

REVISION No. :
A

PROJECT
DRAWING TITLE
PROPOSED RESIDENTIAL DEVELOPMENT

CLIENT
Coomera GA Pty Ltd

ADDRESS
54 GEORGE ALEXANDER WAY, COOMERA

DRAFTED BY :
EM

DESIGNED BY :
AK

CHECKED BY :
BC

PAPER SIZE :
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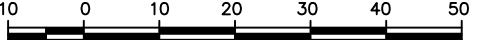
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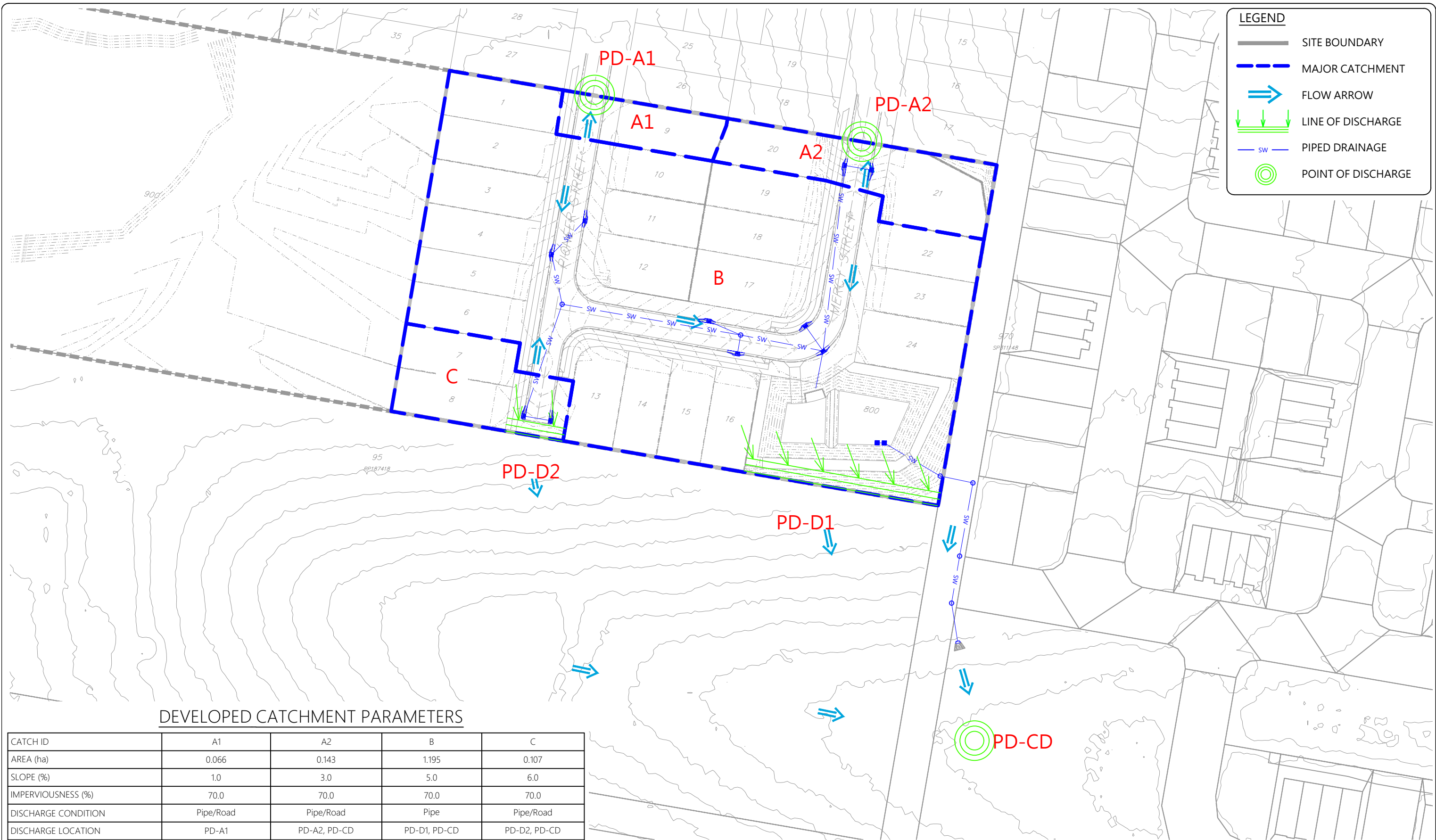
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DEVELOPED CATCHMENT PLAN

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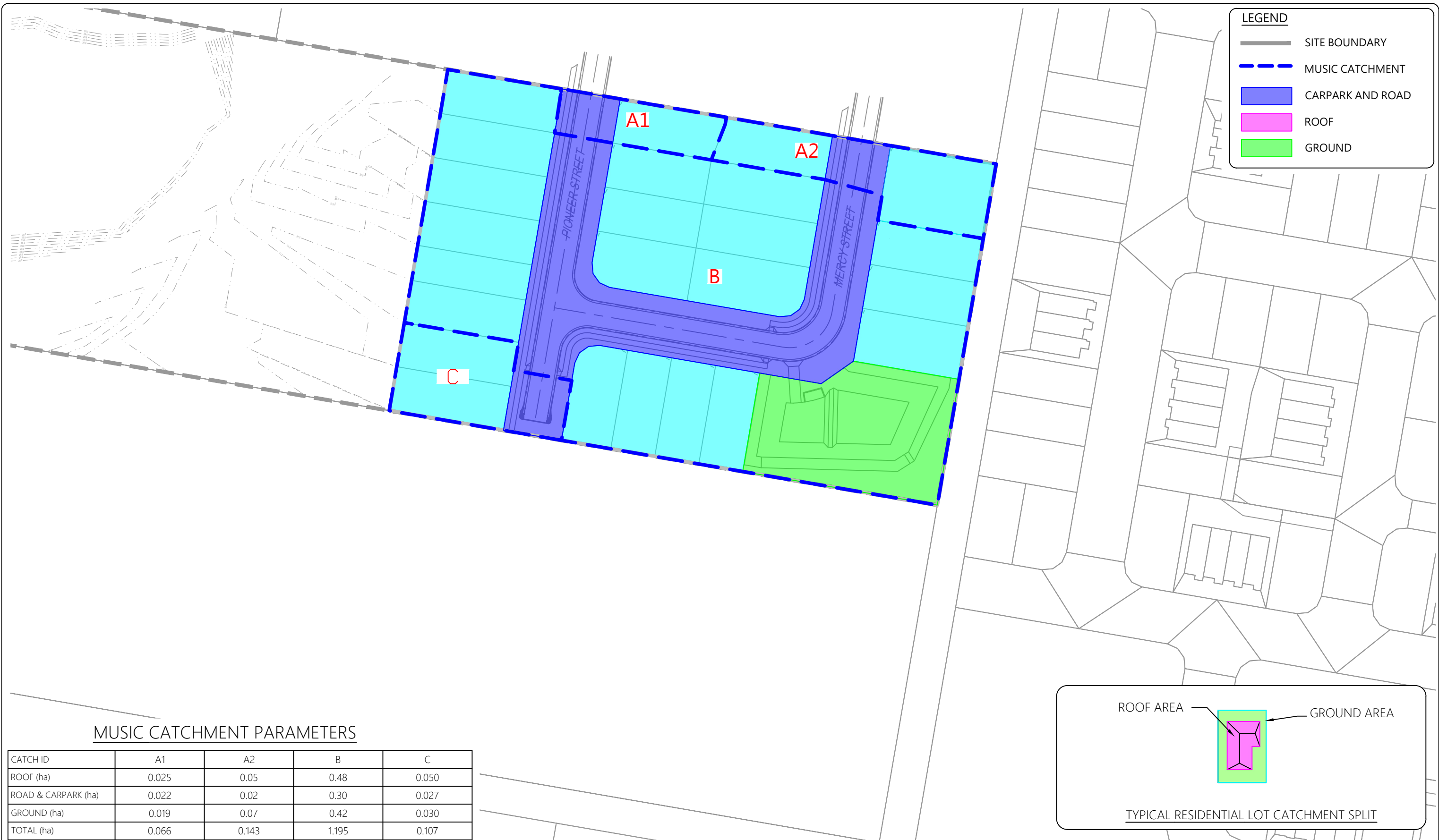
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BC-22167

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DWG-210

REVISION No. :
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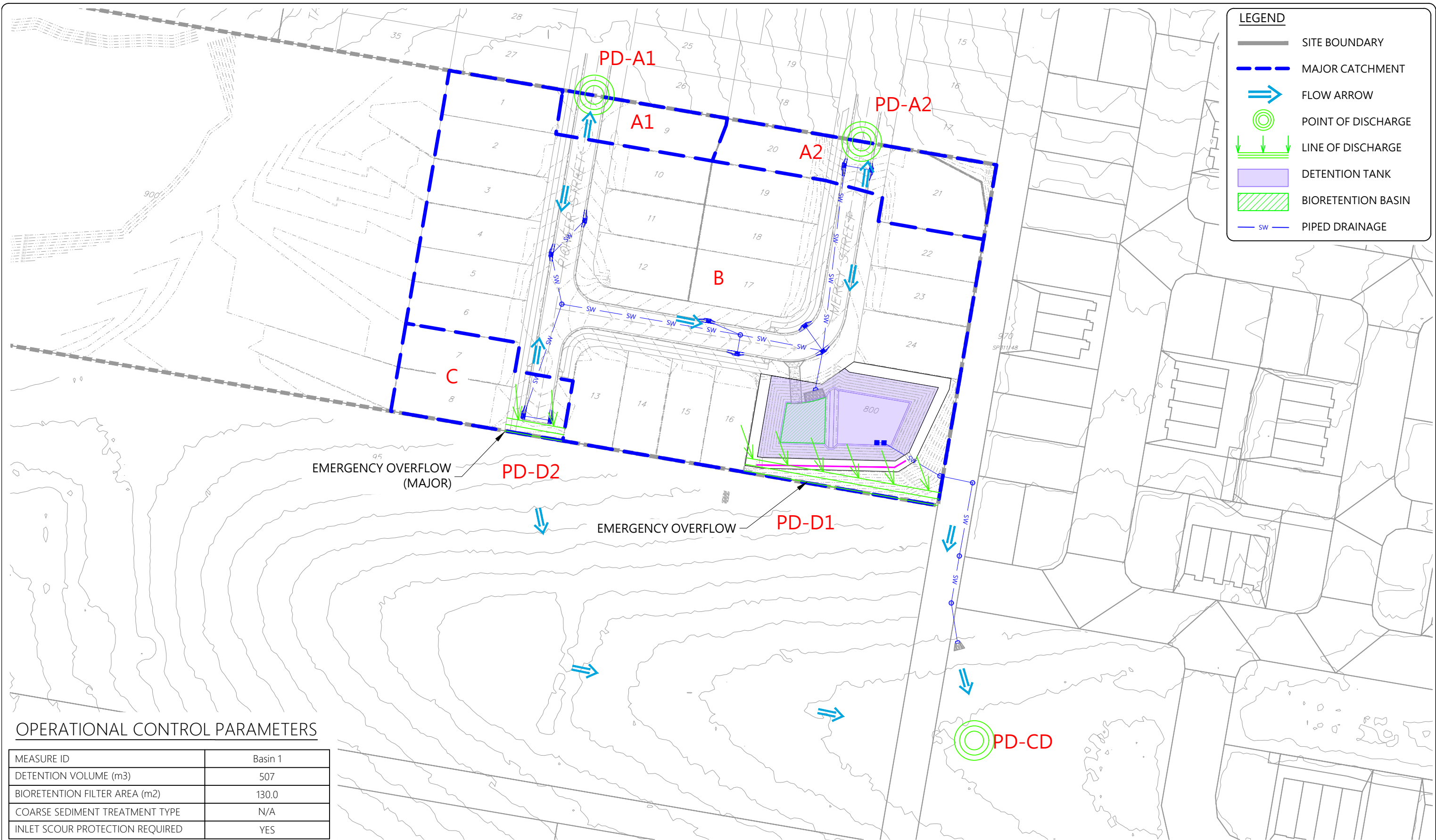
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OPERATIONAL CONTROL PARAMETERS

MEASURE ID	Basin 1
DETENTION VOLUME (m3)	507
BIORETENTION FILTER AREA (m2)	130.0
COARSE SEDIMENT TREATMENT TYPE	N/A
INLET SCOUR PROTECTION REQUIRED	YES

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DRAWING No.: DWG-300	CLIENT Coomera GA Pty Ltd				
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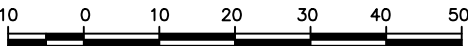
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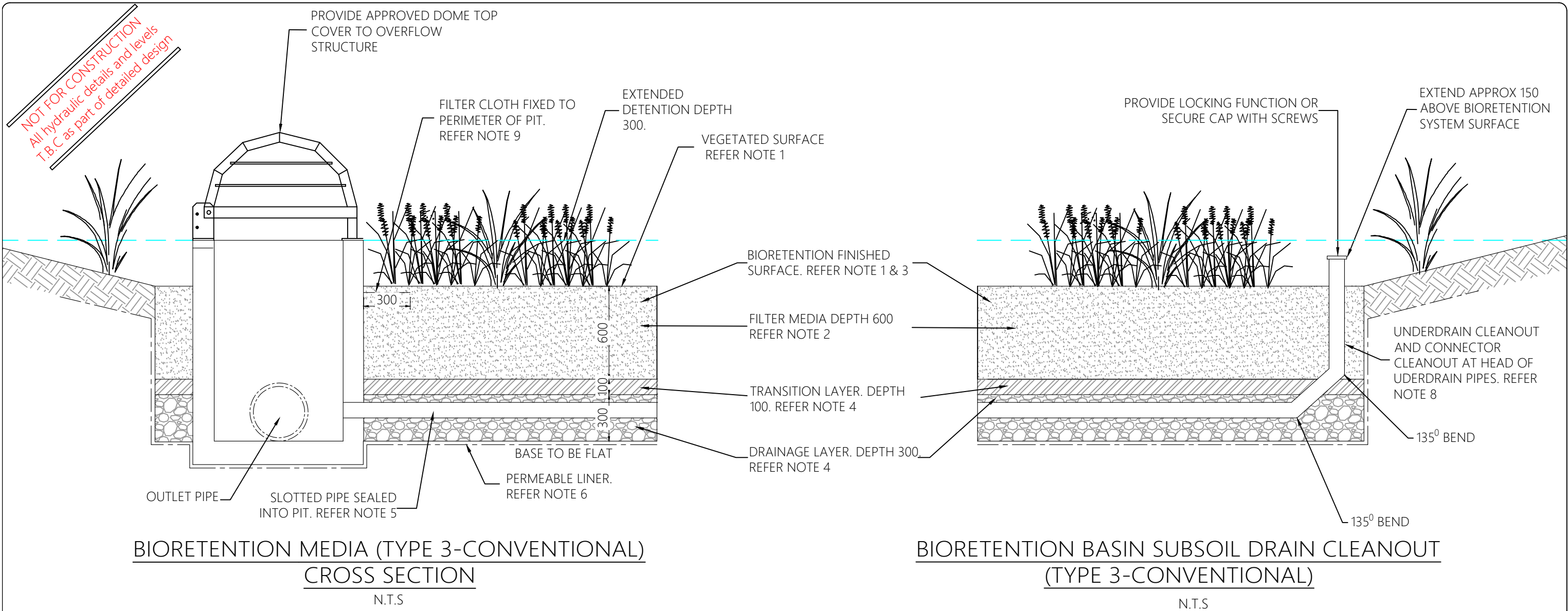
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NOTES (IN ACCORDANCE WITH IPWEAQ STANDARD DRAWINGS DS-070 AND DS-073):

1. BIORETENTION SYSTEM SURFACE. SURFACE LEVEL IS TOP OF FILTER MEDIA. SURFACE TO BE PLANTED AS PER THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN).
2. FILTER MEDIA SPECIFICATION SHALL BE IN ACCORDANCE WITH THE 'ADOPTION GUIDELINES FOR STORMWATER BIOFILTRATION SYSTEMS (CRC FOR WATER SENSITIVE CITIES) AND THE BIORETENTION TECHNICAL DESIGN GUIDELINES (WATER BY DESIGN). BIORETENTION HYDRAULIC CONDUCTIVITY SHALL BE IN ACCORDANCE WITH PRACTICE NOTE 1: IN SITU MEASUREMENT OF HYDRAULIC CONDUCTIVITY' (FAWB). THE NUMBER OF SAMPLES TO BE TESTED SHALL BE IN ACCORDANCE WITH THE 'CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS' (WATER BY DESIGN).
3. CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH THE 'CONSTRUCTION AND ESTABLISHMENT GUIDELINES -SWALES, BIORETENTION SYSTEMS AND WETLANDS' (WATER BY DESIGN)
4. TRANSITION LAYER AND DRAINAGE LAYER. DEPTHS AND SPECIFICATION TO BE IN ACCORDANCE WITH THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN)
5. UNDERDRAIN. SLOTTED RIGID PIPE TO GRADE AT 0.5 % TOWARDS PIT. PIPE SHOULD NOT BE INSTALLED WITH A FILTER SOCK SURROUNDING PIPE. UNDERDRAIN PIPES SHALL BE SEALED INTO PITS USING GROUT OR OTHER APPROVED WATERTIGHT SEAL.

6. PERMEABLE LINER. NON-WOVEN GEOTEXTILE FILTER CLOTH TO BASE AND SIDES OF BIORETENTION SYSTEM. FILTER CLOTH NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. PERMEABLE LINER AS PER "BIORETENTION TECHNICAL DESIGN GUIDELINES" (WATER BY DESIGN).
7. VEGETATED BATTER. SLOPE AND PLANTING TO BE IN ACCORDANCE WITH 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN).
8. INSPECTION/CLEANOUT POINT. VERTICAL SOLID PIPE SECTION ATTACHED TO THE END OF EACH UNDERDRAIN IN ACCORDANCE WITH THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES'(WATER BY DESIGN)
9. FILTER CLOTH TO BE FIXED TO PERIMETER OF PIT TO AVOID RUNNELLING OF WATER BETWEEN PIT AND SOIL INTERFACE. BEGIN FILTER CLOTH 100 ABOVE SURFACE. EXTEND TO 100 BELOW SURFACE. CONTINUE 300 HORIZONTALLY INTO FILTER MEDIA.
10. FOR GENERAL DESIGN AND CONSTRUCTION NOTES REFER TO DS-078
11. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

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BIORETENTION SYSTEM SPECIFICATION

1. Referenced documents.
- The following documents are incorporated into this specification by reference:
- 1.1. Standards
- 1.1.1. AS 1289- Methods of Testing Soils for Engineering Purposes
- 1.1.2. AS 1289.5.4.1-2007- Soil Compaction and Density Tests-Compaction Control Test-Dry Density Ratio, Moisture Variation and Moisture Ratio
- 1.1.3. AS 1289.5.7.1-2006 - Soil Compaction and Density Tests - Compaction control Test-Hilf Density Ratio and Hilf Moisture Variation (rapid method)
- 1.1.4. AS 2758 - Aggregates and Rock for Engineering Purposes
- 1.1.5. AS 4419 - Soils for Landscaping and Garden Use
- 1.1.6. AS 4454 - Composts, Soil Conditioners and Mulches
- 1.2. Other publications
- 1.2.1. Guidelins for Soil Filter Media in Bioretention Systems (FAWB) - the current version of the guideline can be found at <http://www.Monash.edu.au/FAWB/>
- 1.2.2. Construction and Establishment Guidelines - Swales, Bioretention systems and Wetlands (Water by Design) <http://waterbydesign.com.au/ceguide/>
- 1.2.3. Transferring Ownership of Vegetated Stormwater Assets (Water by Design) <http://waterbydesign.com.au/transfergulde/>
- 1.2.4. Transferring Ownership of Vegetated Stormwater Assets (Water by Design) <http://waterbydesign.com.au/transferguide/>
- 1.2.5. Bioretention Technical Design Guidelines (Water by Design) <http://waterbydesign.com.au/techguide/>
- 1.2.6. Water Sensitive Urban Design Field Guide (Water by Design)

2. Abbreviations and definitions
- 2.1. The bioretention system specification consists of the following abbreviations and definitions:
- 2.2. Filter soil layer which acts as a pollutant filter and supports plant growth.
- 2.3. Impermeable liners: the liner that prevents water movement between the filter and the surrounding soils and defines the edge of the system.
- 2.4. Transition layer: layer to separate filter layer from the drainage layer to avoid migration of soils from the filter to the drainage layer
- 2.5. Drainage layer relatively free d raining layer to convey infiltrated water to the underdrainage.
- 2.6. Under-drains: slotted drains collect treated stormwater from the drainage layer at the base of the bioretention system.

3. Test methods and standards
- 3.1. The following test methods and standards are to be used as specified in the above guidelines when conducting tests associated with this specification:
- 3.2. The hydraulic conductivity of potential filter media shall be measured using the ASTM F1815 -11 method
- 3.3. Particle size distribution: AS1289.3.6.1 - 1995
- 3.4. Soils for landscaping and garden use: AS4419 - 2003.

4. Materials
- 4.1. Materials shall meet the required specifications detailed in Section 8 Filter media, Section 9 Transition layer, Section 10 Drainage layer, Section 11 Under drainage. Section 12 Permeable liner. Section 13 Impermeable liner end section 14 landscaping of this document.
- 4.2. All materials must be certified by the supplier with certification and delivery supply dockets shall be provided on request to certify the material delivered is the material tested.

5. Timing and erosion and sediment control
- 5.1. The timing of civil and landscape works for bioretention systems must be carefully planned to ensure that both the bioretention system and the downstream waterways, are not impacted by stormwater and sediment (e.g. through best practice erosion and sediment control). In particular, the drainage layer, transition layer and filter media must not be placed until the risk of high sediment loading from upstream construction activities has been mitigated. The construction sequence must be approved by the superintendent
- 5.2. Erosion and sediment control during construction must be delivered in accordance with all legislative requirements including, where required, the preparation of site-specific ESC plan/s in accordance with current Best Practice Erosion and Sediment Control (e.g. IECA 2008, or later version).

6. Earthworks and hydraulic structures
- 6.1. The construction of hydraulic structures must ensure the design levels are achieved. Bunds/ embankments surrounding the system shall be at correct levels. The below table summarises the construction tolerances for each element of a typical bioretention system.
- 6.2. Bioretention systems tolerances

Bioretention element	Tolerance (unless specified otherwise)
Hydraulic structures	+/-25 mm (+/-15 mm for streetscape systems)
Earthworks	+ / - 50 mm
Underdrainage	+/- 25 mm
Drainage and transition layers	+ 25 mm
Surface level	+/- 25mm +/- 40mm for filter media >300m² provided the average extended detention requirement is within 25mm of the design requirement.
Embankments and bunds	- 25 mm, + 50 mm

7. Maintenance access.
- Maintenance access is provided in accordance with the design drawings.

8. Filter media
- 8.1. Materials
- A fundamental part of bioretention systems is the filter media. The main role of the filter media is to support vegetation and remove pollutants. Filter media should be loamy sand that has high permeability when compacted. It should not contain any rubbish or deleterious material. The loamy sand should contain some organic matter to improve water-holding capacity and plant health, but it should be low in nutrient content. The filter media must be compliant with AS 4419 - Soils for Landscaping and Garden Use, and meet the following requirements:

Parameter	Test method in accordance with	Requirement
Saturated hydraulic conductivity	ASTM f1815 -11	50 - 500 mm/hr (200 preferred)
pH	AS 4419	5.5 - 7.5
Electrical conductivity	AS 4419	<1,2 dS/m
Nitrogen content	AS 4419	<800 mg/kg
Phosphorus content	AS 4419	<40 mg/kg
Organic content	AS 4419	3%-10%. Where organic content is below this threshold, the filter media may be ameliorated by adding 50mm of compost and tining it into the top 150mm of filter media.
Particle size distribution	AS 1289.3.6.1 - 1995	Clay & silt 3-6% (<0.05mm) Very fine sand 5-30% (0.05-0.15mm) Fine sand 10-30% (0.15-0.25mm) Medium to coarse sand 40-60% (0.25 -1.0mm) Coarse sand 7-10% (1.0-2.0mm) Fine gravel <3% (2.0-3.4%)

Source: Guidelines for Soil Filter Media in Bioretention Systems (FAWB) and Bioretention Technical Design Guidelines (Water by Design)

Filter media must be free of weeds and propagates. Other characteristics of the filter media required for plant growth should be confirmed with a soil analysis or confirmed with a horticulturist/landscape architect.

- 8.2. Testing frequency
- Suitable filter media can be delivered to site or imported sand can be ameliorated to meet the above specification. In either case, the media shall be tested against the above parameters at one sample per 500m³ of filter media. For soil supplied to site, testing must be undertaken on the actual material to be delivered to the bioretention system. The supplier and contractor will be responsible for ensuring the filter media meets the specification and the correct material is delivered to site prior to installation.
- 8.3. Installation and compaction
- When installing, the following specifications shall be applied:
- 8.3.1. Filter media shall be installed and compacted in two lifts for depths of over 500mm. Compaction shall be light and even across the surface.
- 8.3.2. The top surface of the drainage layer, transition layer and the filter media layer shall be level and free from localised depressions to ensure even distribution of stormwater flows across the surface and prevent localised ponding.
- 8.3.3. Filter fabric must not be used between drainage layer, transition layer and the filter media layers or wrapped around the under-drainage

9. Transition layer
- 9.1. Transition layers prevent filter media migrating into the drainage layer.
- 9.1.1. Materials

- 9.1.1.1. Transition layer shall be minimum thickness of 100 mm coarse sand unless otherwise specified (typically 1mm particle size diameter) with <2% fines.

- 9.1.1.2. A particle size distribution for the sand shall be obtained to ensure that it meets the following criteria (VicRoads).

- 9.1.1.3. D15 (transition layer) = < 5x D85 (filter media)

- 9.2. Testing
- A sample of the proposed transition layer is to be provided to the superintendent for approval prior to installation. The superintendent may require the transition layer to be tested to ensure its particle size.

10. Drainage layer
- Drainage layers convey infiltrated water into the slotted under-drainage pipes.

- 10.1. Materials
- 10.1.1. Drainage layer shall be comprised of fine gravel (nominal 2-5mm) with <2% fines and a minimum saturated hydraulic conductivity of 400mm/hr. The depth of the drainage layer shall ensure at least 50mm of aggregate cover over all perforated under-drainage pipes.
- 10.1.2. A particle size distribution for the gravel shall be obtained to ensure that it meets the following bridging criteria (VicRoads): D15 (drainage layer) = < 5xD85 (transition layer)
- 10.2. Testing
- A sample of the proposed drainage layer is to be provided to the superintendent for approval prior to installation. The superintendent may require the drainage layer to be tested to ensure its particle size.

11. Under-drainage
- 11.1. Materials
- Either slotted rigid pipe (HDPE or similar) or ag-pipe can be used for under-drainage as specified in the construction drawings. When installing, the following specifications shall be considered:

- 11.1.1. Typically 100mm-slotted hdpe pipe is the preferred type of rigid pipe.
- 11.1.2. The slots in the pipe shall not allow the drainage layer aggregate to freely enter the pipe (under-drainage with slot width of 2mm or smaller is preferred).
- 11.1.3. Under-drainage pipes must not be surrounded by any geofabric or sock.
- 11.2. Installation
- 11.2.1. The maximum spacing of under-drains for blo-retentlon systems <100m² is 1.5m from centre to centre. For bioretention systems >100 m² the maximum spacing can be increased to 2.0-2.5m if specified in the construction drawings.
- 11.2.2. The under-drains shall be sloped towards the outlet pit (min. 0.5% longitudinal grade) and the base of filtration trench shall be free from localised depressions. For bioretention systems with a saturated zone a 0% pipe grade is acceptable.
- 11.2.3. All junctions and connections shall be appropriately sealed.
- 11.2.4. Under-drainage pipes shall be sealed into the overflow pit
- 11.2.5. All under drainage pipes to have raised dean out points constructed from non-slotted pipes which extend to 150mm above filter media surface

12. Permeable liner (where specified)
- 12.1. A permeable geotextile liner fabric must be used to line the outside of the bioretention system.
- 12.2. The liner must extend at least 500mm beyond the top of the sides and must be keyed into batter and covered by at least 200mm of topsoil.
- 12.3. The liner must be resistant to all soil acids and alkalis, resistant to microorganisms and comply with the requirements of AS 3706.12 and AS 3706.13.

13. Impermeable liner (where specified)
- 13.1. Materials
- Liner options include day, geosynthetic bentonite day liners or high-density poly ethylene (HDPE) liners. Refer to the project drawings for liner details.
- 13.2. Installation
- Installation must be in accordance with manufacturers specifications and design drawings and achieve the following:
- 13.2.1. The liners shall be keyed into the batters and to the embankments.
- 13.2.2. Liners must be sealed around protrusions such as outlet pipes.
- 13.2.3. Must achieve a maximum permeability of 1 x10⁻⁹m/s

14. Landscaping
- 14.0. Refer to landscape design drawings.
- 14.1. Batter slopes must have min 200mm topsoil which must be tested by a NATA-accredited laboratory in accordance with AS 4419.
- 14.2. Subsoils to be cultivated to 150mm prior to placing topsoil on batter slopes.
- 14.3. Planting densities and species must be consistent with the landscape design drawings. No substitutions should be made unless approved by the superintendent.
- 14.4. Plants supplied to site must:

- 14.4.1. Be grown in clean, weed-and pest-free conditions;
- 14.4.2. Be well developed, sun-hardened and contain a fully established root ball that does not crumble when removed from its container.
- 14.4.3. Be at least 200mm high.
- 14.4.4. Show no sign of pest and disease
- 14.4.5. Show no signs of nutrient deficiency
- 14.4.6. Be free from weeds
- 14.4.7. Be clearly labelled
- 14.4.8. Be supplied in a container that is at least 90mm high x 50mm wide
- 14.5. Preparing filter media: unless specified otherwise, each plant must receive at least 10 g of slow-release native fertilizer in granular or tablet form. Pre-hydrated water crystals may be applied at 1-2% by weight
- 14.6. Mulch must be applied in accordance with the design drawings, be applied prior to planting, provide coverage of the soil and not exceed 75mm thickness, and be kept 50 mm dear of plant stems. Unless otherwise specified, mulch should be fine sugar cane mulch secured in place by a loose weave jute net pinned at 500mm centres.
- 14.7. Filter media surface and plant stock are to be watered immediately prior to planting. Unless otherwise specified, plants should be planted in clumps of the same species, and large monocultures avoided.
- 14.8. Plant method must minimise soil compaction and ensure that all roots are covered by at least 10-20mm of soil, avoid covering plant crowns.
- 14.9. Unless specified otherwise, the following irrigation schedule applies during plant establishment (at 2.5 - 5L per plant per week)
- Week 1 -5 five waterings per week
- Week 6-10 three waterings per week
- Week 11-15 two waterings per week
- Thereafter as required to sustain plants until successful establishment
- 14.10. Replanting must occur during the establishment period if less than 90% of plants survive.
- 14.11. Successful plant establishment in bioretention systems is considered when the plants are robust and self-sustaining, and meet the following criteria.
- Vegetation must cover at least 90% of the bioretention surface with mulch covering the remainder (< 10% mulch visible from above)
- Average groundcover plant height must be greater than 500mm.
- Plants must be healthy and free from disease.
- No weeds or litter to be present.

15. Certification and chain of custody
- 15.1. The following certification and the chain of custody applies to bioretention media:
- 15.1.1. The supplier and contractor are responsible for ensuring the bioretention media meets the specifications outlined in these guidelines and that the correct material is delivered to site. The supplier must arrange for testing of the filter media by a soil laboratory certified for the methods in accordance with the requirements listed above. On the basis of the testing, the soil laboratory and supplier must certify the material meets these specifications. The supplier must provide the certification and laboratory test results to the contractor with the supply docket.
- 15.1.2. The contractor provides a copy of the supplier's certification, test results and supply docket to the site superintendent or bioretention designer for review.
- 15.1.3. Following review of the certification, test results and the supply docket, the site superintendent or bioretention designer approves installation of the bioretention media.
- 15.1.4. The relevant sections of the bioretention media sign-off form as per the construction and establishment guidelines (Water by Design) should be completed and signed. This sign-off form is provided as part of the construction certification by the site superintendent or bioretention designer.

16. Hold points
- 16.1. The following hold points must be observed in accordance with the most recent Water by Design construction checklists and superintendent approval is required for works to proceed:
- 16.1.1. Prestart meeting
- 16.1.2. Completion of hydraulic structures and under-drainage
- 16.1.3. Prior to placing filter media
- 16.1.4. After placement of filter media (prior to applying mulch and planing).

17. Compliance testing (for on-maintenance or off-maintenance)
- 17.1. Compliance testing must be in accordance with chapter 5 of Transferring Ownership of Vegetated Stormwater Assets (Water by Design). Checklists must be completed and signed by the superintendent.

Disclaimer:It is the responsibility of the certifying registered professional engineer to ensure these standard notes are adapted to the specific needs of the project. It is expected that additional drawing notes would be required to cover other important project issues (e.g. Workplace Health and Safety, Environmental Protection, Erosion and Sediment Control, etc). Healthy waterways, IPWEA and all contributors to this document accept no liability for the use, misuse or any omission or inaccuracy in this document.

DATE	PROJECT			
02.02.23	PROPOSED RESIDENTIAL DEVELOPMENT			
PROJECT No. : BC-22167	DRAWING TITLE BIORETENTION STANDARD NOTES			
DRAWING No. : DWG-350	CLIENT Coomera GA Pty Ltd			
REVISION No. : A	ADDRESS: 54 GEORGE ALEXANDER WAY, COOMERA			
DRAFTED BY : EM	DESIGNED BY : AK	CHECKED BY: BC	PAPER SIZE : A3	SCALE : N.T.S

APPROVED FOR AND ON BEHALF OF BIOME CONSULTING PTY LTD			
RPEQ No. :			
VER.	DESCRIPTION	APPR.	DATE
A	ORIGINAL ISSUE		02.02.23

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ORIGINAL SCALE BEFORE REDUCTION
CERTIFIED BY



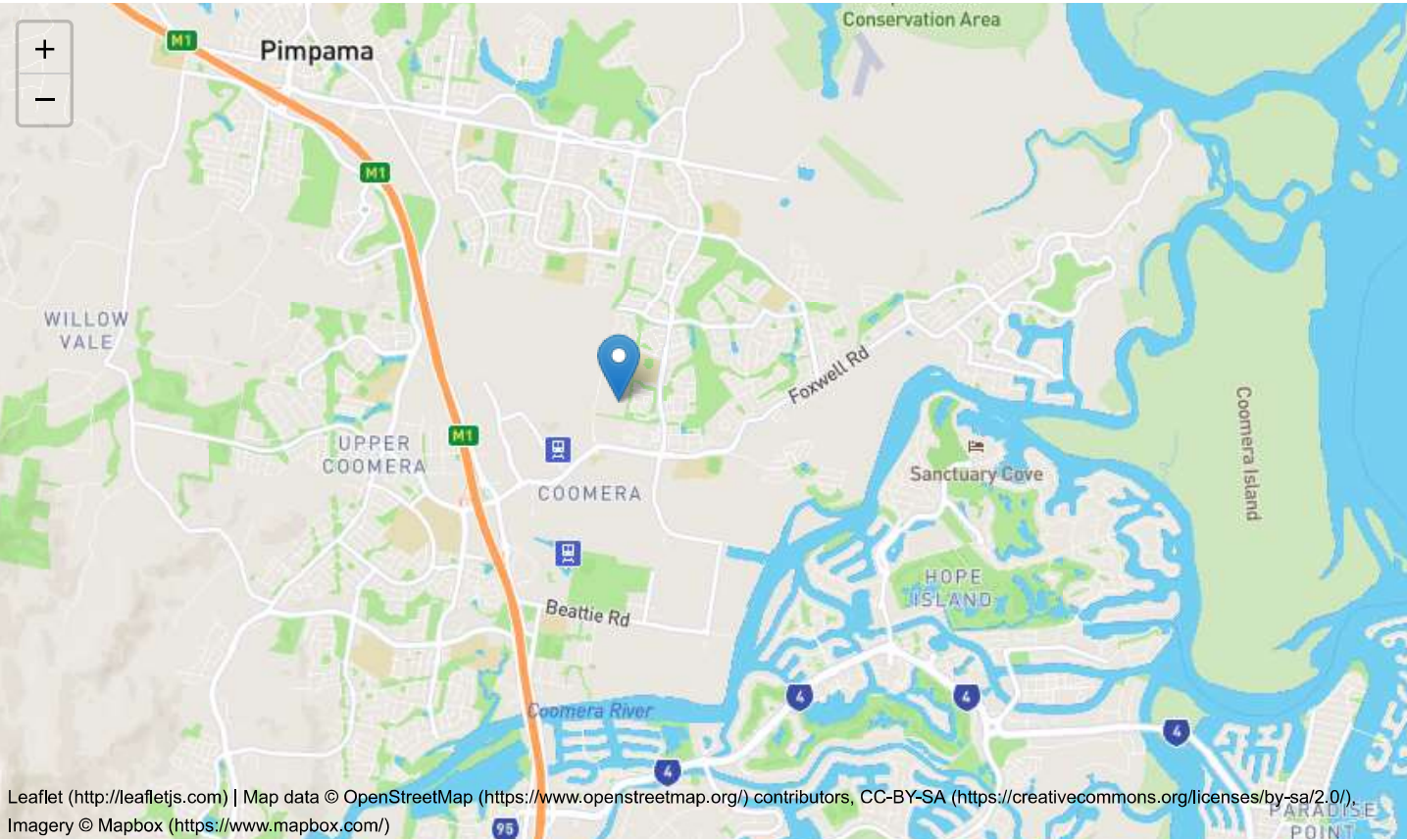
Appendix C

ARR Data Hub Summary Output

Australian Rainfall & Runoff Data Hub - Results

Input Data

Longitude	153.323
Latitude	-27.848
Selected Regions (clear)	
Storm Losses	show
Temporal Patterns	show
BOM IFDs	show
Median Preburst Depths and Ratios	show



Data

Storm Losses

Note: Burst Loss = Storm Loss - Preburst

Note: These losses are only for rural use and are **NOT FOR DIRECT USE** in urban areas

ID	13532.0
Storm Initial Losses (mm)	24.0
Storm Continuing Losses (mm/h)	2.9

Layer Info

Time Accessed	09 November 2022 12:13PM
Version	2016_v1

code	ECnorth
Label	East Coast North

Layer Info

Time Accessed	09 November 2022 12:13PM
Version	2016_v2

BOM IFDs

Click here (http://www.bom.gov.au/water/designRainfalls/revised-ifd/?year=2016&coordinate_type=dd&latitude=-27.84817&longitude=153.32337&sadmin=true&sdhr=true&sdday=true&user_label=) to obtain the IFD depths for catchment centroid from the BoM website

Layer Info

Time Accessed	09 November 2022 12:13PM
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Median Preburst Depths and Ratios

Values are of the format depth (ratio) with depth in mm

min (h)\AEP(%)	50	20	10	5	2	1
60 (1.0)	2.4 (0.060)	6.9 (0.124)	9.9 (0.149)	12.8 (0.165)	10.4 (0.114)	8.7 (0.084)
90 (1.5)	4.4 (0.093)	11.4 (0.174)	16.0 (0.205)	20.4 (0.224)	14.9 (0.136)	10.8 (0.086)
120 (2.0)	7.7 (0.148)	14.5 (0.200)	19.0 (0.218)	23.3 (0.227)	22.1 (0.178)	21.1 (0.149)
180 (3.0)	11.4 (0.190)	25.0 (0.296)	34.1 (0.332)	42.7 (0.352)	53.3 (0.359)	61.2 (0.359)
360 (6.0)	20.8 (0.268)	40.6 (0.364)	53.7 (0.392)	66.3 (0.405)	90.9 (0.452)	109.3 (0.471)
720 (12.0)	21.6 (0.210)	31.6 (0.211)	38.2 (0.206)	44.5 (0.201)	65.3 (0.239)	80.9 (0.257)
1080 (18.0)	13.0 (0.107)	23.8 (0.133)	30.9 (0.140)	37.8 (0.143)	61.8 (0.191)	79.8 (0.214)
1440 (24.0)	8.6 (0.063)	18.2 (0.090)	24.6 (0.099)	30.7 (0.103)	52.7 (0.145)	69.2 (0.165)
2160 (36.0)	0.4 (0.002)	8.6 (0.036)	14.0 (0.048)	19.2 (0.055)	43.5 (0.103)	61.8 (0.127)
2880 (48.0)	0.0 (0.000)	7.8 (0.030)	13.0 (0.040)	18.0 (0.047)	33.6 (0.072)	45.4 (0.085)
4320 (72.0)	0.0 (0.000)	1.5 (0.005)	2.5 (0.007)	3.5 (0.008)	10.0 (0.019)	14.8 (0.025)

Layer Info

Time Accessed	09 November 2022 12:13PM
Version	2018_v1

Location

Label: 54 George Alexander

Latitude: -27.848 [Nearest grid cell: 27.8375 ([S](#))]

Longitude: 153.323 [Nearest grid cell: 153.3125 ([E](#))]

IFD Design Rainfall Intensity (mm/h)

Issued: 09 November 2022

Rainfall intensity for Durations, Exceedance per Year (EY), and Annual Exceedance Probabilities (AEP).

[FAQ for New ARR probability terminology](#)

Duration	Annual Exceedance Probability (AEP)						
	63.2%	50%#	20%*	10%	5%	2%	1%
1 min	160	181	246	289	332	388	431
2 min	134	152	208	248	289	348	396
3 min	126	142	195	232	269	322	364
4 min	119	135	185	219	253	301	338
5 min	114	129	176	208	240	283	316
10 min	93.1	105	143	168	192	223	246
15 min	78.9	89.1	121	142	162	187	207
20 min	68.7	77.6	105	123	141	164	181
25 min	61.1	69.0	93.5	110	126	147	162
30 min	55.1	62.3	84.6	99.6	114	134	148
45 min	43.3	48.9	66.8	79.0	91.2	108	120
1 hour	36.1	40.8	56.0	66.6	77.2	91.8	103
1.5 hour	27.7	31.4	43.5	52.1	60.8	73.1	83.0
2 hour	22.9	26.0	36.3	43.7	51.3	62.1	70.9
3 hour	17.6	20.0	28.2	34.2	40.5	49.4	56.8
4.5 hour	13.5	15.5	22.1	26.9	32.1	39.4	45.4
6 hour	11.3	13.0	18.6	22.8	27.3	33.5	38.7
9 hour	8.82	10.2	14.7	18.1	21.7	26.7	30.9
12 hour	7.43	8.58	12.5	15.4	18.5	22.7	26.2
18 hour	5.84	6.77	9.92	12.3	14.7	18.0	20.7
24 hour	4.92	5.72	8.39	10.4	12.4	15.2	17.4
30 hour	4.29	5.00	7.34	9.06	10.8	13.2	15.2
36 hour	3.83	4.46	6.56	8.08	9.66	11.8	13.5
48 hour	3.18	3.70	5.44	6.70	7.99	9.74	11.1
72 hour	2.39	2.78	4.08	5.02	5.97	7.28	8.32
96 hour	1.91	2.23	3.26	4.01	4.77	5.82	6.66
120 hour	1.59	1.85	2.70	3.32	3.96	4.83	5.53
144 hour	1.35	1.57	2.29	2.82	3.37	4.12	4.72
168 hour	1.17	1.36	1.98	2.45	2.93	3.58	4.10

Note:

The 50% AEP IFD **does not** correspond to the 2 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 1.44 ARI.

* The 20% AEP IFD **does not** correspond to the 5 year Average Recurrence Interval (ARI) IFD. Rather it corresponds to the 4.48 ARI.

This page was created at **01:16 on Wednesday 9 November 2022 (UTC)**

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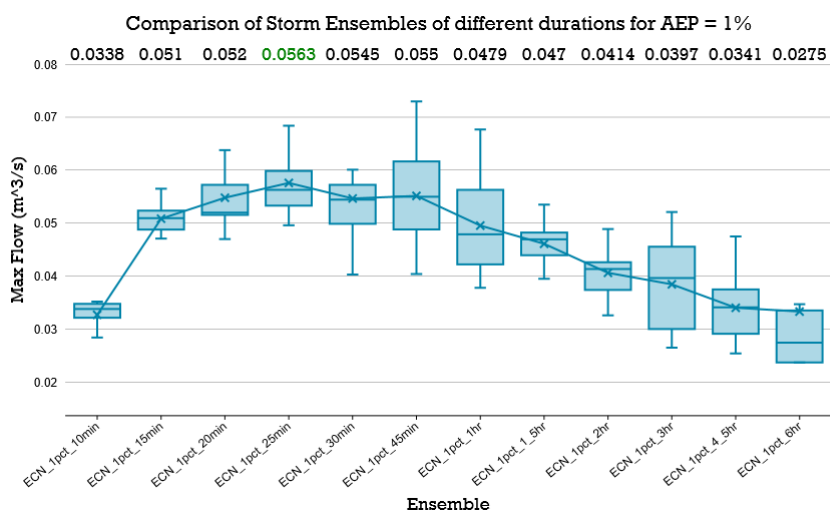


Appendix D

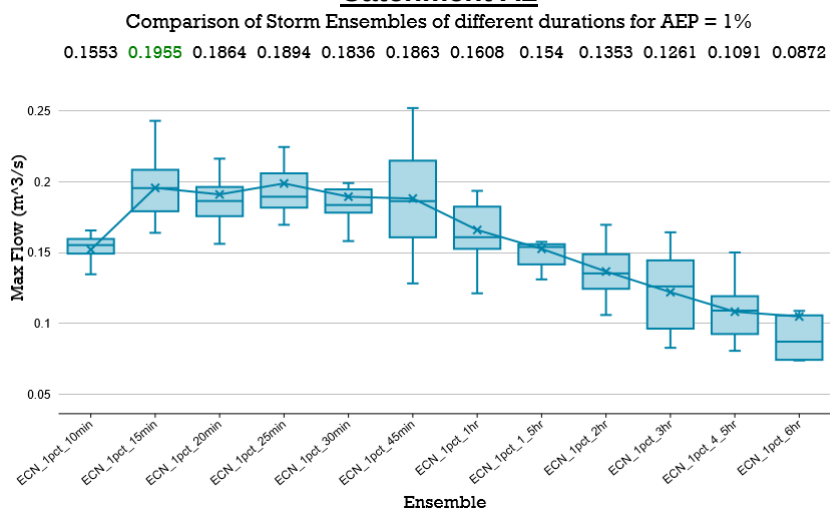
1 % AEP Box and Whisker Plots for Modelled Durations



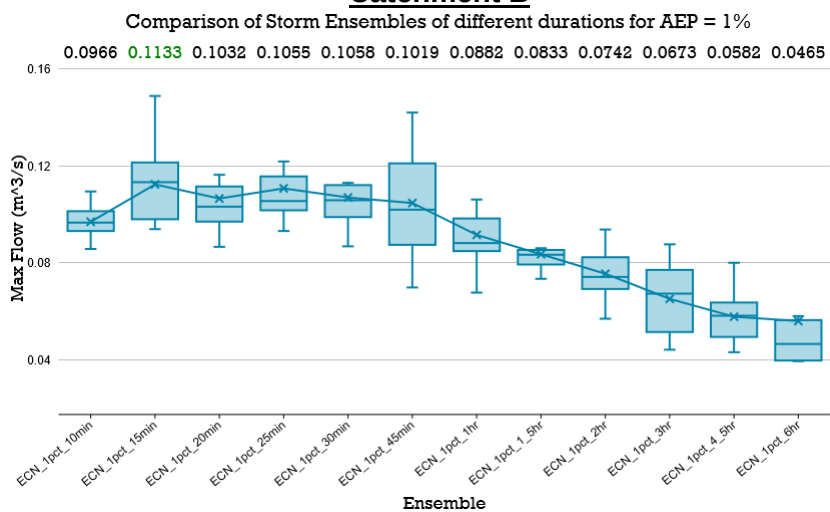
Catchment A1



Catchment A2

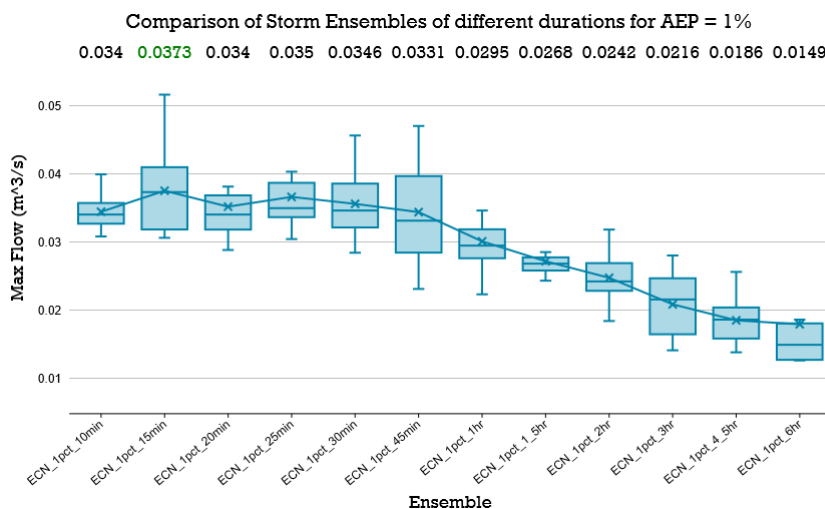


Catchment B

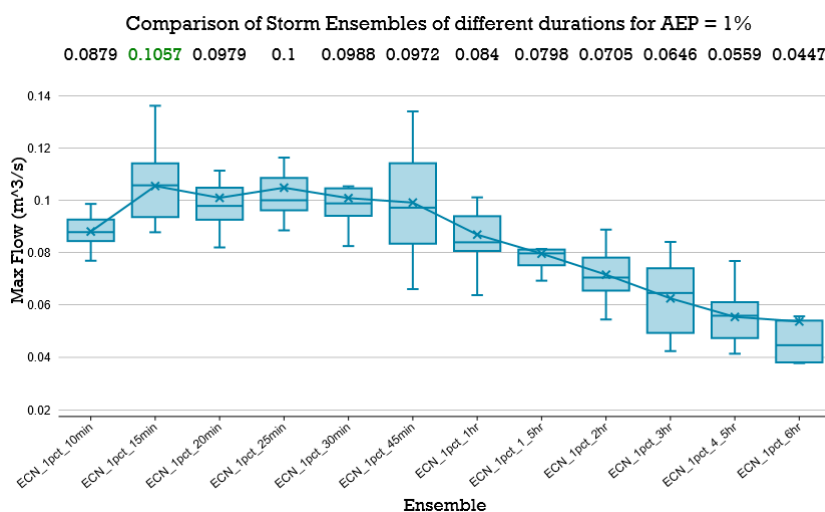




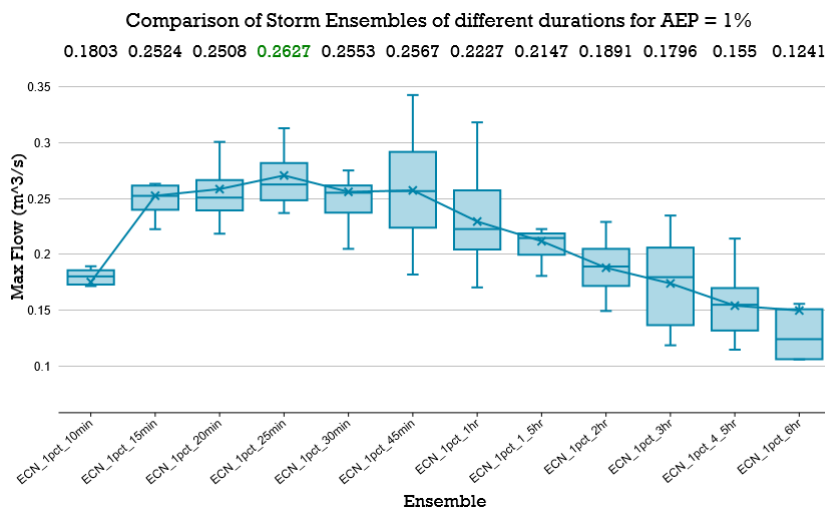
Catchment C



Catchment D1

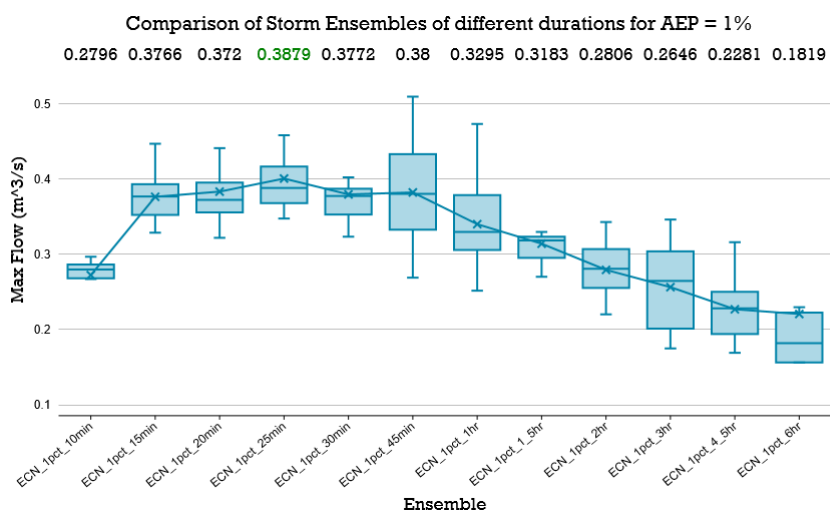


Catchment D2





Catchment PD-CD





Appendix E

Rational Method Model Validation



The Rational Method has been relied upon to validate the flows reported within *xpstorm* for both the pre and post development cases. In accordance with QUDM 2016 Section 4, the Rational Method provides a simple means of estimating peak discharge and is therefore considered suitable for validation purposes. Equation 4.2 from QUDM has been relied upon.

$$Q_y = (C_y \cdot I_y \cdot A)/360$$

where:

Q_y	=	peak flow rate (m ³ /s) for annual exceedance probability (AEP) of 1 in 'y' years
C_y	=	coefficient of discharge for AEP of 1 in 'y' years
A	=	area of catchment (ha)
I_y	=	average rainfall intensity (mm/h) for a design duration of 't' hours and an AEP of 1 in 'y' years
t	=	the nominal design storm duration as defined by the time of concentration (t)

Coefficient of Discharge

Based on the infiltration characteristics of the internal and external catchments, the following discharge coefficients have been calculated using the method presented within Book 8 of Australian Rainfall and Runoff (1998) and based on Equation 4.3 from QUDM (2016).

$$C_y = F_y \cdot C_{10}$$

where:

C_y	=	coefficient of discharge for AEP of 1 in 'y' years
F_y	=	frequency factor for AEP of 1 in 'y' years
C_{10}	=	10 year discharge coefficient value for Tables 4.5.3 and 4.5.4 of QUDM

Fraction impervious (f_i) values for the existing and developed catchments were derived from aerial photography and development plans, respectively. Using these values, and the local I_{10} (1 hour rainfall intensity for the 10 year ARI) value sourced from BOM, the C_{10} for each catchment was determined and utilised to calculate the runoff coefficients for each nominated event.

The fraction impervious and coefficient of discharge values for the nominated AEP's for the existing case and developed case are contained within Tables C.1 and C.2, respectively.

Table C.1 Coefficient of Discharge – Existing Case

Catchment ID		f_i	C_2	C_5	C_{10}	C_{20}	C_{50}	C_{100}
Internal	A1	0.01	0.56	0.63	0.66	0.69	0.76	0.79
	A2	0.00	0.56	0.63	0.66	0.69	0.76	0.79
	B	0.00	0.56	0.63	0.66	0.69	0.76	0.79
	C	0.00	0.56	0.63	0.66	0.69	0.76	0.79
	D1	0.00	0.56	0.63	0.66	0.69	0.76	0.79
	D2	0.00	0.56	0.63	0.66	0.69	0.76	0.79

Table C.2 Coefficient of Discharge – Developed Case

Catchment ID		f_i	C_2	C_5	C_{10}	C_{20}	C_{50}	C_{100}
Internal	A1	0.70	0.72	0.81	0.85	0.89	0.98	1.00
	A2	0.70	0.72	0.81	0.85	0.89	0.98	1.00
	B	0.70	0.72	0.81	0.85	0.89	0.98	1.00
	C	0.70	0.72	0.81	0.85	0.89	0.98	1.00

Time of Concentration



The time of concentration (t_c) for each catchment was calculated in accordance with Section 4.6 of QUDM (2016).

A standard inlet time of concentration of 5 min has been adopted within the relevant developed catchments as per Table 4.6.2 of QUDM.

The time of concentration (t_c) for the overland flow length within the undeveloped catchments and the relevant developed catchments was estimated using Friend's Equation for overland flow (QUDM Section 4.6.6).

$$t_c = (107nL^{0.333})/S^{0.2}$$

where:

t_c	=	Time of concentration (min)
n	=	Horton's roughness value (estimated using QUDM Table 4.6.5)
L	=	Overland sheet flow path length (m)
S	=	Slope (%)

For channel flow, times were estimated using Manning's equation as provided in the Technical notes for Figure 4.6 of QUDM, shown below:

$$t_c = 0.025L/S^{0.5}$$

where:

t_c	=	Time of concentration (min)
L	=	Length of gutter flow (m)
S	=	Slope (%)

Tables C.3 and C.4 below present the parameters relied upon to calculate the time of concentration (t_c) to the discharge point of each catchment (site's PD) for the existing and developed case, respectively.

Table C.3 t_c Parameters – Existing Case

Parameter	Internal					
	A1	A2	B	C	D1	
Standard Inlet Time						
t_c (min)	-	-	-	-	-	-
Sheet Flow						
Flow Length (m)	34	108	100	50	73	86
Horton's Roughness Value	0.035	0.035	0.035	0.035	0.035	0.035
Slope (%)	2.4	8.7	7.3	6.8	7.5	6.4
t_c (min)	10.2	11.6	11.7	9.4	10.4	11.4
Channel Flow						
Flow Length (m)	-	-	36	-	-	-
Velocity (m/s)	-	-	1.5	-	-	-
Slope (%)	-	-	8.5	-	-	-
t_c (min)	-	-	0.4	-	-	-
TOTAL t_c (min)	10.2	11.6	12.1	9.4	10.4	11.4

Table C.4 t_c Parameters – Developed Case

Parameter	Internal			
	A1	A2	B	C



Standard Inlet Time					
t_c (min)		5	5	5	5
Sheet Flow					
Flow Length (m)		7.3	6.8	7.5	2.4
Horton's Roughness Value		0	0	0	0
Slope (%)		0.035	0.035	0.035	0.035
t_c (min)		0.0	0.0	0.0	0.0
Pipe Flow					
Flow Length (m)		12	15	130	17
Velocity (m/s)		1.0	1.0	1.0	1.0
Slope (%)		1.0	1.0	1.0	1.0
t_c (min)		0.2	0.3	2.2	0.3
TOTAL t_c (min)		5.2	5.3	7.2	5.3

Rainfall Intensity

Based on the calculated t_c for each catchment, Intensity-Frequency-Duration data (IFD) has been obtained from the Bureau of Meteorology for nominated AEP's and the existing and developed cases are presented in Tables C.5 and C.6, respectively.

Table C.5 Rainfall Intensity (mm/h) – Existing Case

Catchment ID		I_2	I_5	I_{10}	I_{20}	I_{50}	I_{100}
Internal	A1	116.4	144.3	167.1	191.0	221.8	244.7
	A2	111.4	138.2	159.9	182.7	211.8	233.9
	B	109.5	135.9	157.3	179.6	208.2	229.9
	C	120.2	149.3	172.9	197.9	230.3	254.5
	D1	115.4	143.0	165.7	189.3	219.8	242.5
	D2	112.0	138.9	160.8	183.7	213.0	235.2

Table C.6 Rainfall Intensity (mm/h)– Developed Case

Catchment ID		I_2	I_5	I_{10}	I_{20}	I_{50}	I_{100}
Internal	A1	142.0	178.6	206.4	238.1	280.6	313.2
	A2	141.7	178.3	206.0	237.6	280.0	312.5
	B	131.7	164.8	190.6	219.2	257.0	285.6
	C	141.5	178.0	205.8	237.3	279.6	312.1

Peak Discharge

Based on the above parameters, estimates of the expected peak discharge generated for the site's existing and developed catchments for nominated AEP's have been calculated, and are presented in Tables C.7 and C.8, respectively.

Table C.7 Peak Discharge (m³/s) – Existing Case

Catchment ID		Annual Exceedance Probability (AEP)					
		0.393 (2 yr ARI)	0.181 (5 yr ARI)	0.095 (10 yr ARI)	0.049 (20 yr ARI)	0.02 (50 yr ARI)	0.01 (100 yr ARI)
Internal	A1	0.02	0.03	0.04	0.04	0.06	0.07
	A2	0.04	0.05	0.06	0.07	0.09	0.10



	B	0.07	0.09	0.11	0.13	0.17	0.19
	C	0.01	0.02	0.02	0.02	0.03	0.04
	D1	0.03	0.05	0.06	0.07	0.09	0.10
	D2	0.10	0.13	0.16	0.19	0.24	0.28

Table C.8 Peak Discharge (m³/s) – Developed Case

Catchment ID		Annual Exceedance Probability (AEP)					
		0.393 (2 yr ARI)	0.181 (5 yr ARI)	0.095 (10 yr ARI)	0.049 (20 yr ARI)	0.02 (50 yr ARI)	0.01 (100 yr ARI)
Internal	A1	0.02	0.03	0.03	0.04	0.05	0.06
	A2	0.04	0.06	0.07	0.08	0.11	0.12
	B	0.32	0.44	0.54	0.65	0.83	0.95
	C	0.03	0.04	0.05	0.06	0.08	0.09



Appendix F

Approved Roadworks and Drainage Layout Plan by
Arcadis for 1 Talpa St Coomera (Stages 1A & 1B)



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No.: MIN / 2022 / 274

Dated: 13 July 2022

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

LEGEND

1

1

PROPOSED STORMWATER DRAINAGE

1

1

PROPOSED STORMWATER DRAINAGE 100 YEAR ARI PIPE

RWD

1

PROPOSED ROOFWATER DRAINAGE

#

STORMWATER DRAINAGE STRUCTURE

— *

TWIN RWD KERB ADAPTORS AND TWIN 100mm x 75mm GALVANISED RHS ROOFWATER PIPES TO PROPERTY BOUNDARY 500mm OFFSET FROM PROPERTY BOUNDARY

⊗

TWIN RWD KERB ADAPTORS 500mm OFFSET FROM PROPERTY BOUNDARY

S

PROPOSED SEWERAGE RETICULATION

W

PROPOSED WATER RETICULATION

SWD

EXISTING STORMWATER DRAINAGE

R

EXISTING RECYCLED WATER RETICULATION

S

EXISTING SEWERAGE RETICULATION

W

EXISTING WATER RETICULATION

5.0

PROPOSED SURFACE CONTOURS

5.0

EXISTING SURFACE CONTOURS

—

PROPOSED BARRIER KERB & CHANNEL

PROPOSED ASPHALT PAVEMENT

PROPOSED CONCRETE DRIVEWAY

—

PROPOSED RETAINING WALL

⊙

PROPOSED BOULDER WALL

—

EXISTING CONCRETE SLEEPER RETAINING WALL

—

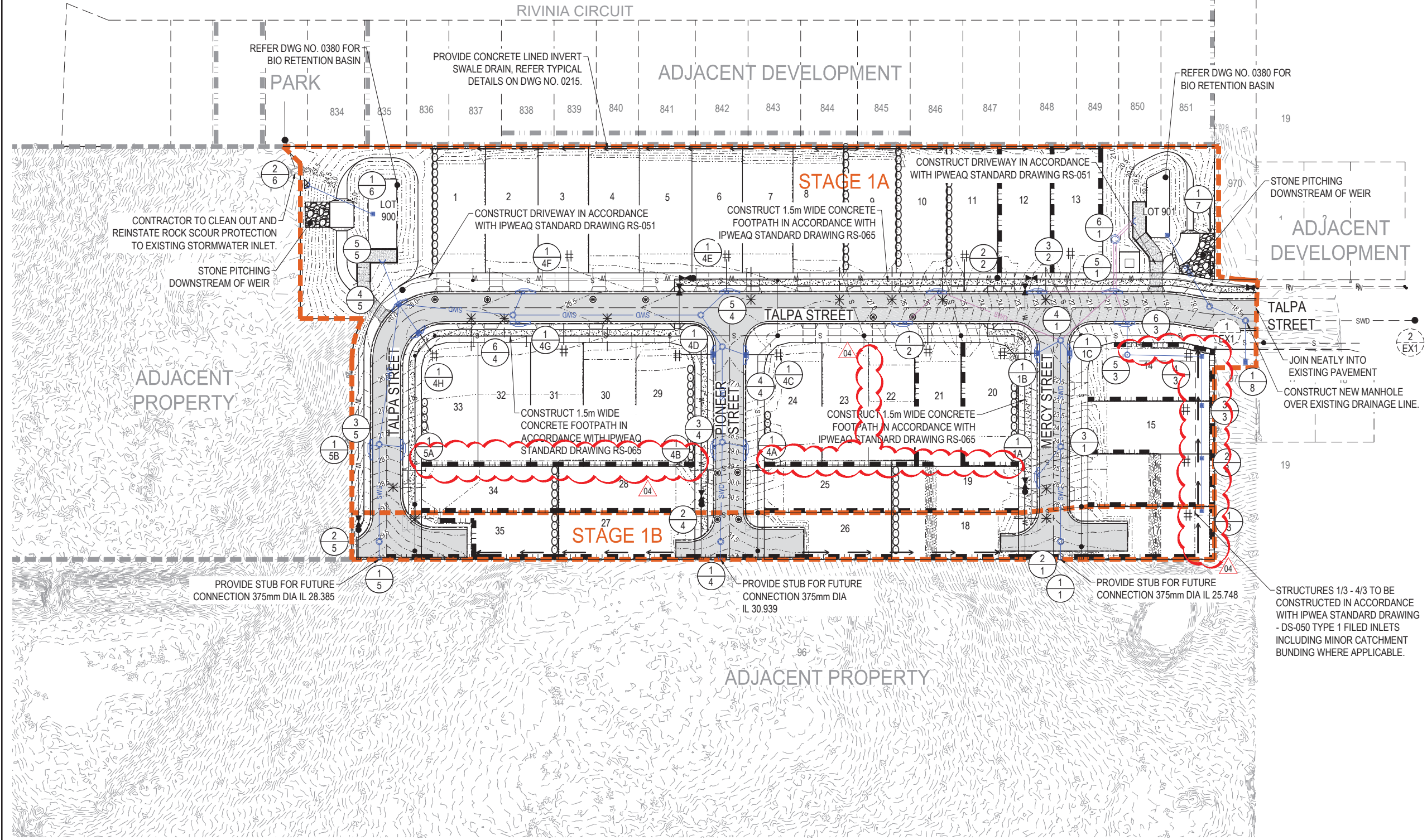
PROPOSED EASEMENT

—

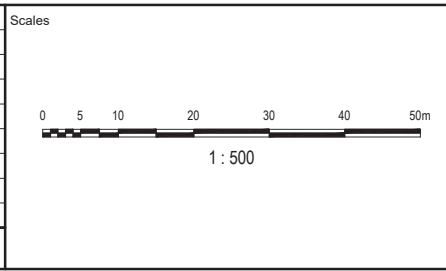
STAGE BOUNDARY

→

SWALE



Issue	Description	DR	CH	VE	Date
04	WALLS AMENDED AND SWD LINE 3 RE-ALIGNED	CA	SH	MW	16.06.22
03	COUNCIL APPROVAL MARKUPS	CA	SH	MW	29.11.21
02	RFI ISSUE	JQ	SH	MW	14.09.21
01	ORIGINAL ISSUE	JQ	SH	MW	14.07.21



Surveyor

Client

Landcrest Development Pty Ltd

Status

FOR APPROVAL
CONSTRUCTION SUBJECT TO APPROVAL

Original Issue Signatures

Drawn	J. QUIAMBAO	Original Size	A1
Designed	A. STA. CRUZ	Height Datum	AHD
Project Manager	G. MENZIES	Grid	LOCAL
Verified	M. WENZEL		

Date Plotted: 15 Jun 2022 - 09:52AM File Name: C:\12\SW\data\AUS\01\APP\04\30086425-1\Talpa St. Coomera_204\ID-DigEng\DA-CAD\DAC-Drawings\DA-CAD\DA-CAD-Stage#30086425-DACAA-AA01OP-CV-DRG-0210-RoadworksAndDrainagePlan.dwg

Project

1 TALPA STREET, COOMERA
STAGES 1A & 1B

Title

ROADWORKS AND DRAINAGE
LAYOUT PLAN

Arcadis Australia Pacific Pty Limited
Level 7, Seabank Building, 12-14 Marine Parade
SOUTHPORT QLD 4215
ABN 76 104 485 289
Tel No: +61 7 5503 4800
www.arcadis.com/au

Project No. Folder Prefix Zone Stage Phase Discipline Type Drawing No. Issue

30086425-DACAA-AA01OP-CV-DRG-0210-04



Appendix G

Operational Control Plan & MUSIC Catchment Plan for
66 George Alexander Way (taken from Approved SMP
by BIOME Consulting, 2018)

CATCHMENT A
ROOF 0.443 ha
ROAD AND CARPARK: 0.346 ha
GROUND 0.267 ha
TOTAL 1.056 ha

CATCHMENT B
ROOF 0.342 ha
ROAD AND CARPARK: 0.240 ha
GROUND 0.219 ha
TOTAL 0.801 ha

CATCHMENT Ext A
GROUND 0.223 ha
TOTAL 0.223 ha

CATCHMENT Ext B2-A
GROUND 0.145 ha
TOTAL 0.145 ha

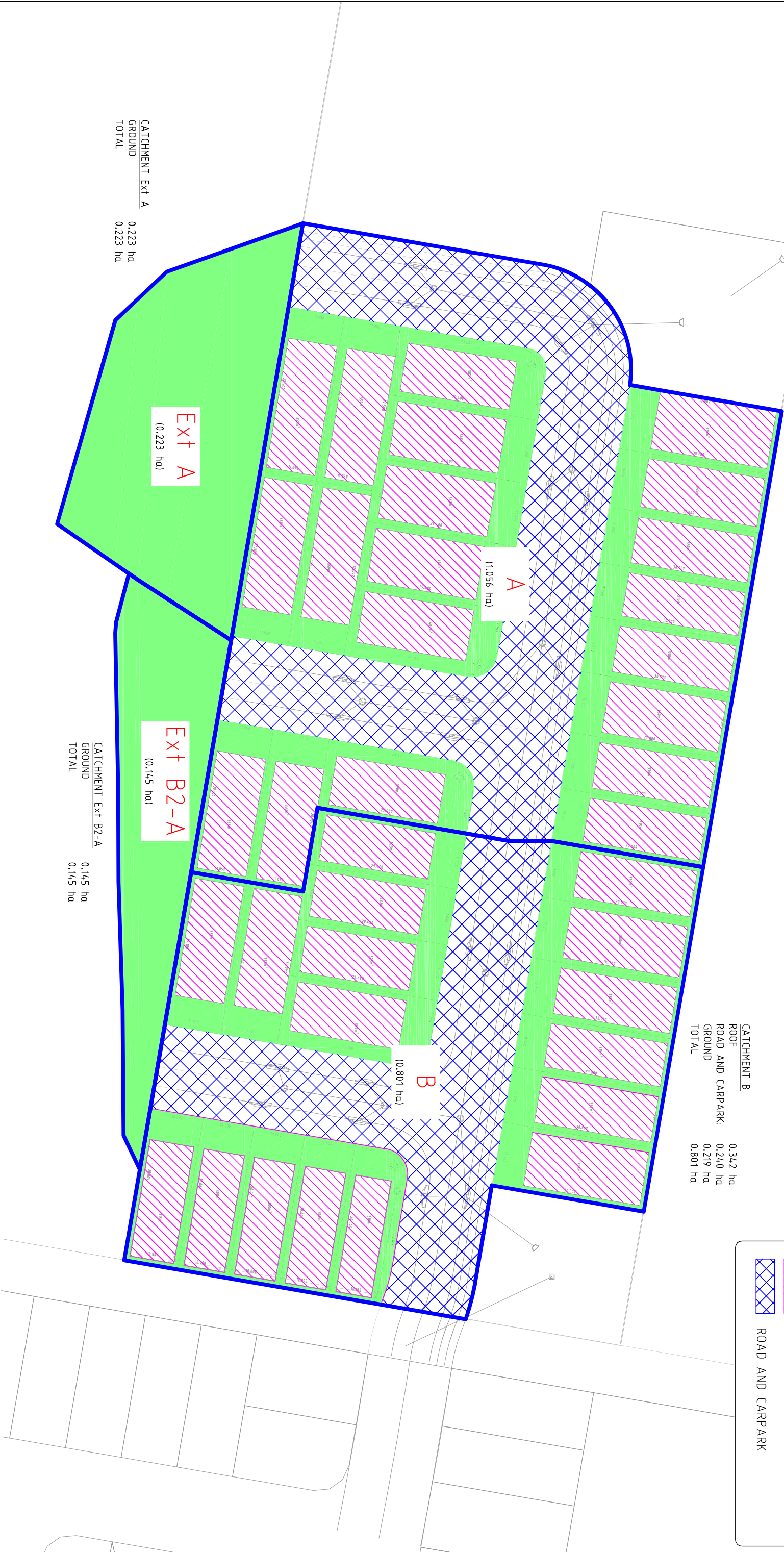
Ext A
(0.223 ha)

A
(1.056 ha)

Ext B2-A
(0.145 ha)

B
(0.801 ha)

- LEGEND
- MUSIC CATCHMENT
 - GROUND
 - ROOF
 - ROAD AND CARPARK



DATE

19.06.18

PROJECT No.:

BC-17141

DRAWING No.:

DWG-210

REVISION No.:

B

PROJECT

PROPOSED SUBDIVISION

DRAWING TITLE

MUSIC CATCHMENT PLAN

CLIENT

SOUTHERN PACIFIC DEVELOPMENT PTY LTD

ADDRESS:

66 GEORGE ALEXANDER WAY

COOMERA

DRAFTED BY:

TP / LD

DESIGNED BY:

AC / TP

CHECKED BY:

AC

PAPER SIZE:

A3

SCALE:

1:750

APPROVED FOR AND ON BEHALF OF BIOME CONSULTING
PTY LTD ACN 166 087 476

RPED No.:

DESCRIPTION

ORIGINAL ISSUE

INFORMATION REQUEST

RESPONSE

DATE

APPR.

VER.

A

B

19.06.18

27.02.18

27.02.18

27.02.18

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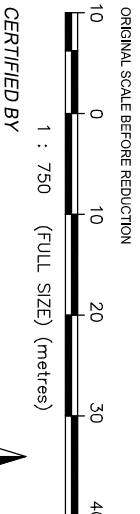
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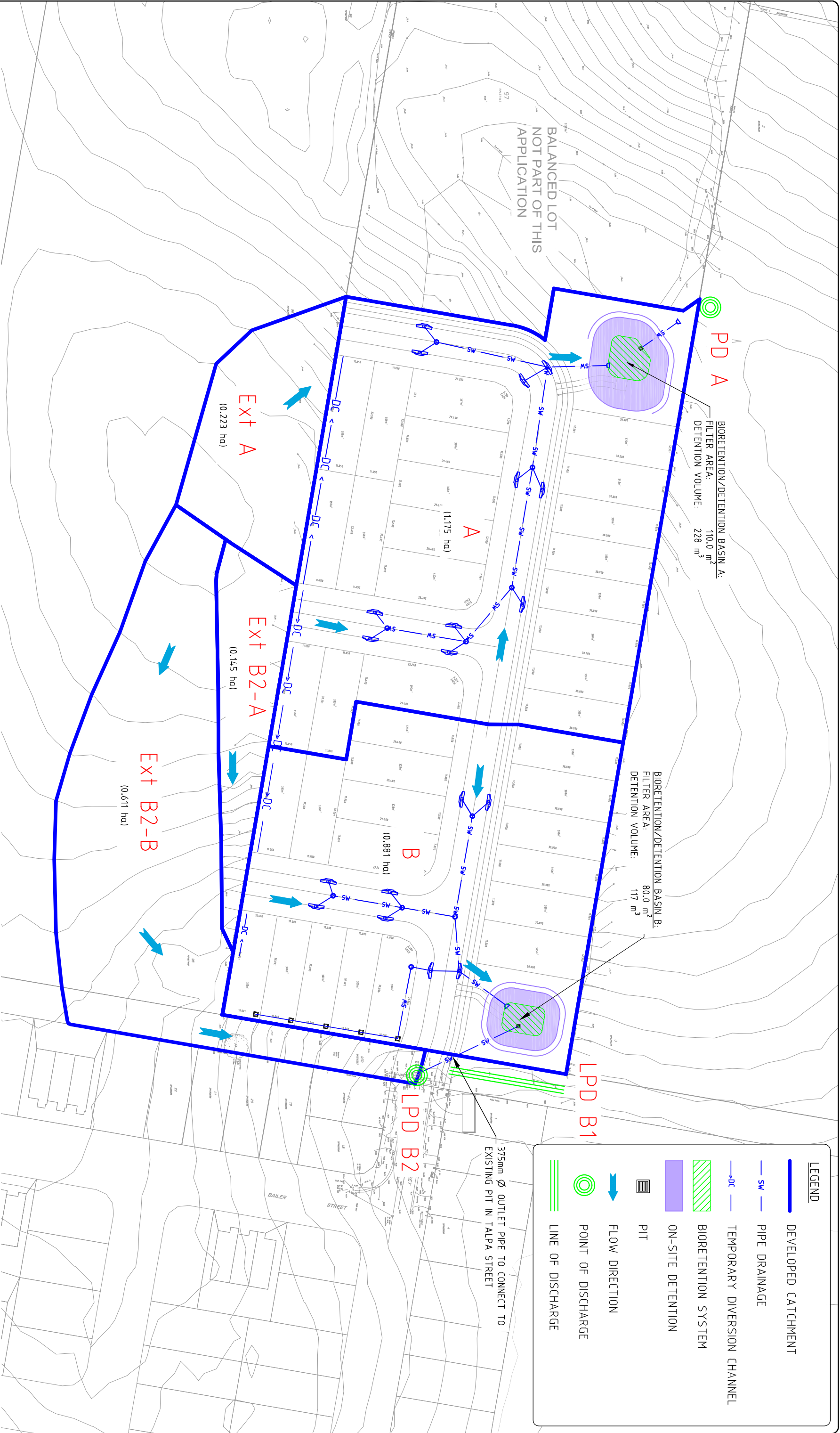
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BIOME Consulting Pty Ltd
PO Box 3469, Australia Fair, Southport
M 04 15 935 222
E brad@biomeconsulting.com.au
ABN 86 166 087 476





LEGEND

DEVELOPED CATCHMENT

PIPE DRAINAGE

TEMPORARY DIVERSION CHANNEL

BIORETENTION SYSTEM

ON-SITE DETENTION

PIT

FLOW DIRECTION

POINT OF DISCHARGE

LINE OF DISCHARGE

DATE
19.06.18

PROJECT No.:
BC-17141

DRAWING No.:
DWG-300

REVISION No.:
B

PROJECT
PROPOSED SUBDIVISION

DRAWING TITLE
OPERATIONAL CONTROL PLAN

CLIENT
SOUTHERN PACIFIC DEVELOPMENT PTY LTD

ADDRESS:
66 GEORGE ALEXANDER WAY
COOMERA

DRAFTED BY :
TP / LD

DESIGNED BY :
AC / TP

CHECKED BY:
AC

PAPER SIZE :
A3

SCALE :
1:1000

APPROVED FOR AND ON BEHALF OF BIOME CONSULTING PTY LTD

RPED No.:
ACN 166 087 476

VER.	DESCRIPTION	APPR.	DATE
A	ORIGINAL ISSUE		27.02.18
B	INFORMATION REQUEST RESPONSE		19.06.18

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BIOME
WATER AND ENVIRONMENTAL CONSULTING

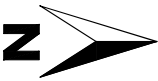
BIOME Consulting Pty Ltd
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M 0415 935 222
E brad@biomeconsulting.com.au
ABN 86 166 087 476

ORIGINAL SCALE BEFORE REDUCTION

10 0 10 20 30 40 50

1 : 1000 (FULL SIZE) (metres)

CERTIFIED BY



ENGINEERING SERVICES REPORT

54 GEORGE ALEXANDER DRIVE

COOMERA GA PTY LTD ATF THE COOMERA GA UNIT TRUST



IMPROVING QUALITY OF LIFE

54 GEORGE ALEXANDER DRIVE

ENGINEERING SERVICES REPORT

Author Gabby Djelovic



Checker Gary Menzies



Approver James Stockwell
RPEQ20152



Report No GA0001-30157884 -AAR

Date 2/02/2023

Revision Text 01

This report has been prepared for Coomera GA Pty Ltd ATF The Coomera GA Unit Trust in accordance with the terms and conditions of appointment. Arcadis Australia Pacific Pty Limited (ABN 76 104 485 289) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

Revision	Date	Description	Prepared by	Approved by
01	2/02/2023	Original Issue	GD	JS

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APPENDIX B

Council Infrastructure Maps

APPENDIX C

Dial Before You Dig Maps

APPENDIX D

Survey

1 EXECUTIVE SUMMARY

Coomera GA Pty Ltd ATF The Coomera GA Unit Trust has commissioned Arcadis to prepare an Engineering Services Report (ESR) for a residential development application for the site located over the following allotments located on Alexander Drive, Coomera:

- Lot 96 on RP 187418

The proposed development intended for the site is for the creation of 24 lots and a balance parcel, inclusive of a road and services network, amenities and stormwater management areas. 6 of the 24 allotments proposed will be dual occupancy lots.

This report addresses the municipal engineering services components of the development and the engineering planning issues associated with the development application. This report demonstrates that the proposed development can connect to the local stormwater, potable water and sewerage reticulation systems as well as transport infrastructure.

Stormwater is discharged to four lawful points of discharge, being the northern lot (Lot 1 on SP312031) into Pioneer Street, the northern lot (Lot 1 on SP312031) into Mercy Street, the southern lot (Lot 95 on RP187418) into the reserve and finally the southern lot (Lot 95 on RP187418) into the drainage line.

A pit and pipe network will be required to facilitate basin and pipe drainage outlets. The site incorporates a combined detention and bio retention treatment basin to achieve stormwater management objectives. A Conceptual Stormwater Management Plan has been prepared by BIOME which addresses the stormwater management planning requirements for the development.

Potable water connection for the proposed development to Gold Coast Water & Waste's supply network, will be supplied via connection into the future DN100 water main within Mercy Street and the future DN100 main within Pioneer Street. These pipes will be constructed as part of the subdivision of lot 1 on SP312031 under application number OPW/2022/155.

Connection for the proposed development to the wastewater supply network will be provided via the future DN150 connection stubs in Mercy and Pioneer Street within lot 1 on SP312031. These pipes will be constructed as part of the abovementioned application.

Vehicular access to the development is proposed via connection to existing Mercy Street and Pioneer Street that are presently being constructed in the adjoining subdivision to the north.

The proposed development will involve the undertaking of cut and fill earthworks operations and retaining to facilitate the construction of roads, surface drainage and allotments. Consideration of interfacing with adjoining known development approvals has been made based on current available information, however should be reviewed for any further known information during detailed design.

2 SITE CHARACTERISTICS

2.1 Location Details

The subject site is located within Alexander Drive, Coomera, Australia over the following allotment:

- Lot 96 on RP 187418

A site locality plan is provided in Figure 2-1 below.

The site is bounded George Alexander way to the west, open space to the north and south, a future residential development to the north under application number and residential dwellings to the east.

- Lot 1 on SP312031 to the north of the site is currently subject to development approval OPW/2022/155.

The Gold Coast City Council is the local government authority.

The total area of the site is approximately 30,100m².

2.2 Land Usage

In its current state, the project site consists of a residential dwelling and its associated driveway. Figure 2-1 below provides a current locality plan of the site.



Figure 2-1 Site Locality Plan (Aerial Imagery Courtesy of NearMap)

2.3 Topography and Features

The site has slopes ranging from 5 to 12%. The site has a high point at the centre of RL34m therefore, everything slopes away from the centre of the site. The low point of the site is within the north eastern corner at RL24m.

There are two existing dams located on the site, one large dam in the north western corner and a smaller dam located in the northeaster corner.

Further catchment and topographic information can be seen on the Engineering Drawings attached in Appendix A.

3 PROPOSED DEVELOPMENT

The proposed development involves the construction of residential dwellings, including:

- 24 residential allotments 6 of which will be dual occupancy
- 1 balance parcel.
- Residential road network.
- Stormwater management areas.

A plan extract of the proposed development has been provided in Figure 3-1.

A full set of development proposal plans are provided within the development application package and should be referred to for further information.

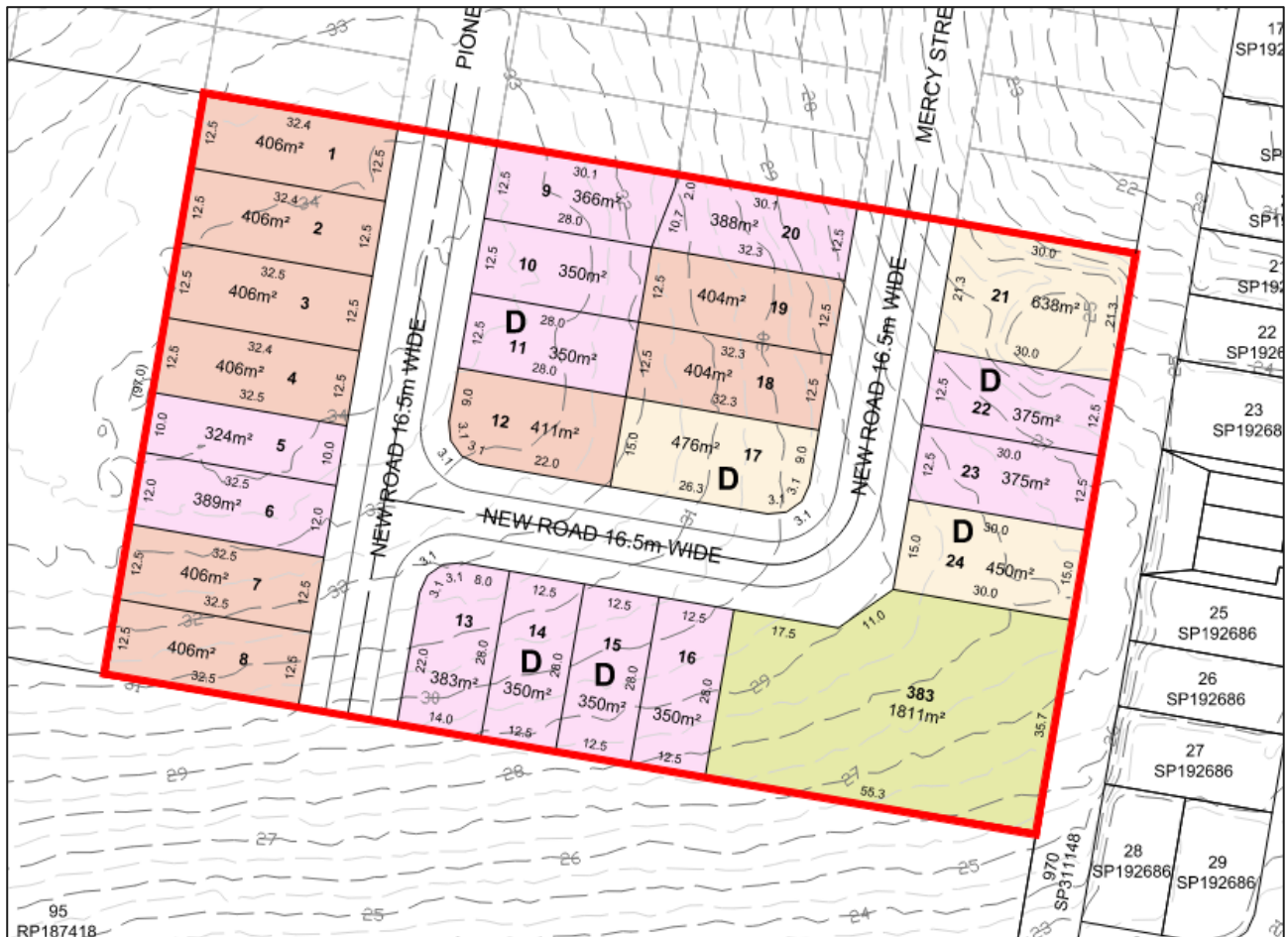


Figure 3-1 Proposed Development Layout

3.1 Clarifications

This report assumes that works associated with the development north of the site, summarised as Lot 1 on SP312031 will be completed in full (including modifications as needed to support proposed outcomes of this proposal) to enable relevant services connections and earthworks interfacing. Further details can be found under the following approval:

- Development Approval OPW/2022/155.

To the best of our understanding, these works are close to completion.

4 INFRASTRUCTURE SERVICE

4.1 Stormwater Drainage

A Conceptual Stormwater Management Plan (CSMP) has been prepared by BIOME which addresses the stormwater management planning requirements for the development. The CSMP should be referred to for a more in-depth analysis of prevailing stormwater constraints and opportunities, however a summary of key engineering requirements is provided herein.

4.1.1 Existing Stormwater Drainage

Stormwater runoff generated by the site generally discharges to six lawful points of discharge illustrated in Figure 4-1.

- There are currently two catchments draining into lot 1 on SP312031 to the north of the site.
 - Catchment A1 flows in a north westly direction to LPoD PD-A1.
 - Catchment A2 flows in a north easterly direction to LPoD PD-A2.
- There are also two catchments that are directed into the drainage corridor to east of the site, catchment B and C.
 - Catchment B drains in a north easterly direction to LPoD PD-B.
 - Catchment C drains in a south easterly direction to LPoD PD-C.
- Finally, catchment D2 and D1 drain into lot 96 on RP187418 to the south of the site.
 - Catchment D1 drains in a south easterly direction to LPoD PD-D1.
 - Catchment D2 drains in a south easterly direction to LPoD PD-D2.

All of which ultimately drain into McCoy's Creek north east of the site.

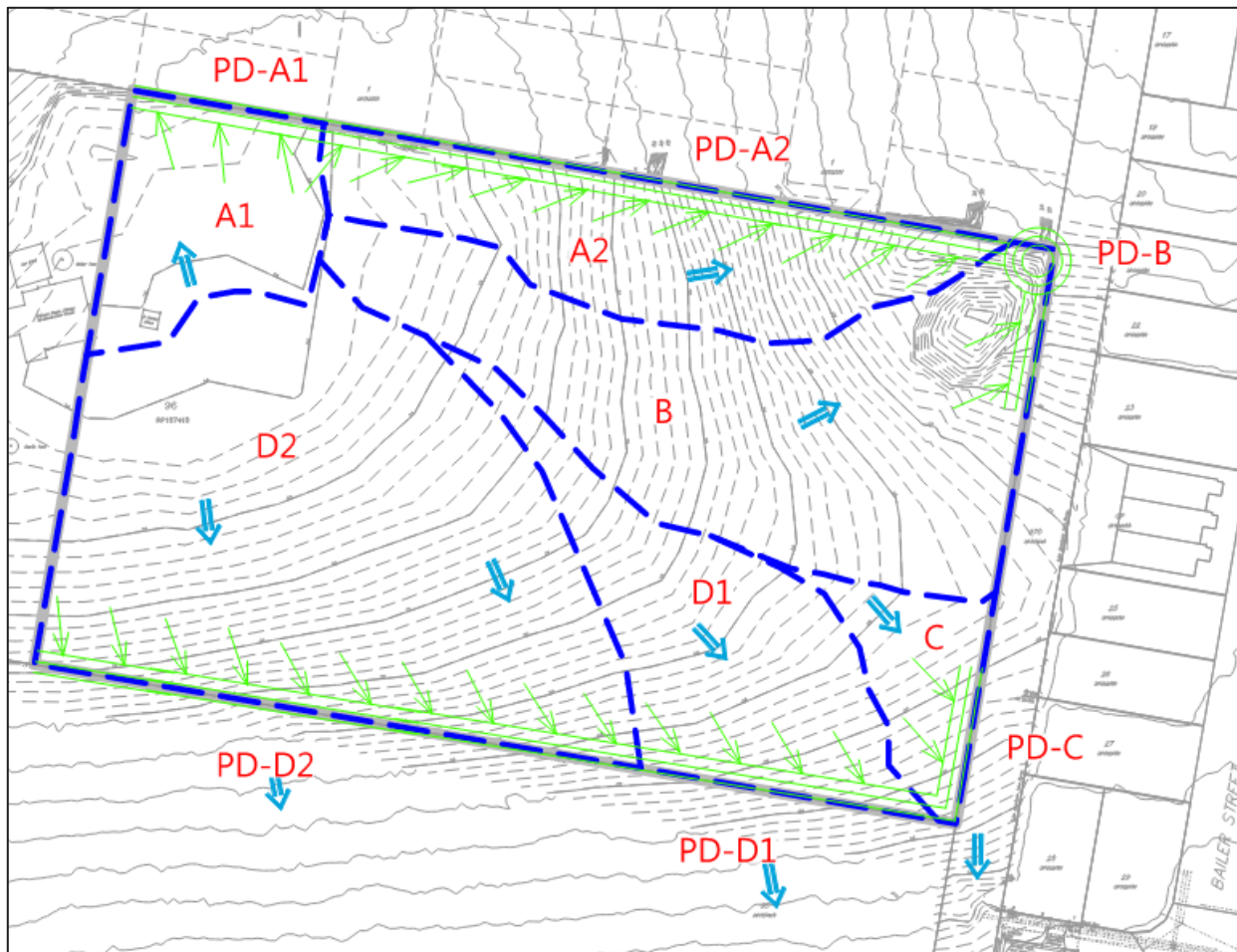


Figure 4-1 Existing Stormwater Catchments (Courtesy: BIOME)

4.1.2 Proposed Stormwater Drainage

The site will manage both stormwater quality and quantity through the use of pit and pipe drainage networks, and stormwater basin areas. Stormwater will be discharged to the existing lawful points of discharge being the lot to the north, the drainage corridor to the east and the lot to the south. The development to the north has made provisions in its stormwater systems to cater for the some of the site's stormwater. Ultimately all the stormwater discharge ends up in McCoy's Creek north east of the site.

All pipe flow will be directed towards the combined detention/ bio retention basin.

The CSMP prepared by BIOME should be referred to for further details on the exact methodology used to achieve Council objectives. Refer to engineering drawings in Appendix A for a conceptual indicative location of the stormwater connection points.

4.2 Water Network

4.2.1 Existing Potable Water

The following water mains were identified within the vicinity of the development site:

- 1 x DN300 potable water main within the western verge of George Alexander Way to the west of the site. There are no plans to connect to this infrastructure.

4.2.2 Planned Potable Water

Version 8 City Plan Water Supply Network – Infrastructure Map – 15 (refer to Appendix B) indicates that there is no planned upgrade for the water main in the immediate vicinity of the site.

However, it is understood that there we be water mains constructed north of the site within lot 1 on SP312031 under application number OPW/2022/155.

- A DN100 main within the western verge of Mercy Street to the north of the site.
- A DN100 main within the western verge of Pioneer Street to the north of the site.

4.2.3 Proposed Potable Water

Connection for the proposed development to the GCWW's supply network will be provided via two connections to the water mains located constructed under application number OPW/2022/155. One connection will be made to the DN100 main within Mercy Street and the other will connect into the DN100 main within Pioneer Street.

The Developer shall design and construct an internal water reticulation network for the proposed development which will be the subject of future Operational Works applications.

Fire hydrants shall be placed at appropriate intervals along the internal new water main to ensure coverage of the site.

Refer to engineering drawings in Appendix A for the proposed water reticulation and connection point.

4.2.4 Projected Development Loadings

The development has been assessed under two loading cases in order to better determine the anticipated impact it will have on the surrounding network. These cases are the:

- **Planned Demand** – A demand assigned to the site via the City of Gold Coast 2018 City Plan which is derived from GCWW 'Water and Sewerage Demand Table' <https://www.goldcoast.qld.gov.au/files/sharedassets/public/pdfs/brochures-amp-factsheets/water-sewage-demand-table.pdf> and the property's net area.
- **Project Development Loading** – The calculated demand for the property based on proposed development yield and conversion rates from GCWW 'Water and Sewerage Demand Table' <https://www.goldcoast.qld.gov.au/files/sharedassets/public/pdfs/brochures-amp-factsheets/water-sewage-demand-table.pdf>

Table 4-1 Planned Demand

Category	Area (ha)	Conversion Rate	Planned Demand (EP)
RD3	0.750	78EP/ha	58.5
RD7	2.260	412EP/ha	931.12
Total			989.62

Table 4-2 Projected Development Loading

Category	Quantity	Conversion Rate	Proposed Demand (EP)
3 Bedroom Attached Dwelling	12	2.51EP/dwelling	30.12
Detached Dwelling	18	2.79EP/dwelling	55.22
Total			85.34

There is a decrease of approximately 904.28EP between planned and proposed demands. No further network assessment has been undertaken for the purposes of this application submission.

4.3 Sewer Network

4.3.1 Existing Sewer

The following sewer infrastructure was identified adjacent to the development site:

A DN150 gravity sewer main located at the end of Seashell Avenue, located directly south east of the site.

A DN225 rising sewer main within the western verge of George Alexander Way to the west of the site.

There are no plans to connect to either of the above.

4.3.2 Planned Sewer

Version 8 City Plan Wastewater Supply Network – Infrastructure Map – 15 (refer to Appendix B) indicates that there are no planned upgrades within the immediate vicinity of the site.

However, it is understood that sewer reticulation is presently being constructed north of the site within lot 1 on SP312031 under application number OPW/2022/155.

- A DN150 main within the western verge of Mercy Street to the north of the site.
- A DN150 main within the western verge of Pioneer Street to the north of the site.

4.3.3 Proposed Sewer

Connection for the proposed development to the GCWW's wastewater supply network will be provided via the two DN150 connection stubs within Mercy Street and Pioneer Street. A new internal gravity network will be installed in order to provide each new allotment with a sewer service.

Refer to engineering drawings included Appendix A for further details.

4.3.4 Projected Development Loadings

Due to the nature of the development and its location, the wastewater demand is calculated in the same manner as the water supply. Refer to section 0 for further details.

The proposed development presents a decrease in loading, of 904.28EP when compared to the current planned demand. No further assessment has been undertaken for the purposes of this application.

4.4 Other Services

A Dial Before You Dig (DBYD) search has identified telecommunications services within George Alexander Way to the west of the development site.

Overhead power has been identified fronting the site within the western verge of George Alexander Way. It can be seen in Figure 4-2 there is overhead power running east from George Alexander Way through the site. Therefore, provisions must be made to decommission these power lines.



Figure 4-2 Overhead Power Lines in the Site

The proposed development will incorporate low-voltage electricity and telecommunications supply designed by a specialist electrical and telecommunications consultant in accordance with Council and Energex requirements. It is expected that connection to these services shall be provided via extension of services from the development to the north.

The DBYD search results are provided in Appendix C and should be referred to for the locations of the above-mentioned services within the vicinity of the site.

5 ROADS AND ACCESS

Primary vehicular access to the development is proposed via extension of Mercy Street and Pioneer Street to the north of the site.

The following road profiles are proposed:

- Residential Access Street – 16.50m (min.) road reserve, 7.50m kerb to kerb pavement, and 4.50m verges.

All proposed roads within the site will be constructed in accordance with Council standards.

There are two temporary turn around areas to be constructed at the end of Mercy Street and Pioneer Street within the adjacent development. These two turnaround areas are to be removed by the adjacent developer upon the completion of road construction under this proposal.

Refer to Appendix A for engineering drawings.

6 EARTHWORKS

6.1 EARTHWORKS OPERATIONS

The proposed development will involve the undertaking of cut and fill earthworks and retaining operations to facilitate the construction of access driveways, surface drainage and allotments.

It is understood that no geotechnical investigations or assessment have been undertaken at this stage. It is recommended that such works are undertaken to inform the suitability of site material, proposed earthworks intent and overall stability.

6.2 Acid Sulfate Soil Assessment

According to the acid sulfate map the site does not contain acid sulfate soils therefore no further assessment has been undertaken by the applicant at this time.

7 CONCLUSION

This report has concluded that the site can readily connect to the existing engineering services. Future Operational Works applications will be sought to permit the works to be undertaken.

Stormwater

- Stormwater will be discharged to four lawful points of discharge, being;
 - The northern lot (Lot 1 on SP312031) into Pioneer Street
 - The northern lot (Lot 1 on SP312031) into Mercy Street
 - The southern lot (Lot 95 on RP187418) into the reserve
 - The southern lot (Lot 95 on RP187418) into the drainage line
 - Add the additional LPD associated with runoff from the balance parcel.

Potable Water

- Proposed connection GCCC Water's supply network will be via connection into the future DN100 water main within Mercy Street and the future DN100 main within Pioneer Street.

Sewer

- Site will be connected into the GCCC wastewater supply network via the future DN150 connection stubs in Mercy and Pioneer Street.

Roads and Footpaths

- Vehicular access to the development is proposed via extension of the adjoining lot to the north.
- New roads will be constructed to provide access for all the lots within the site.

APPENDIX A

ENGINEERING DRAWINGS

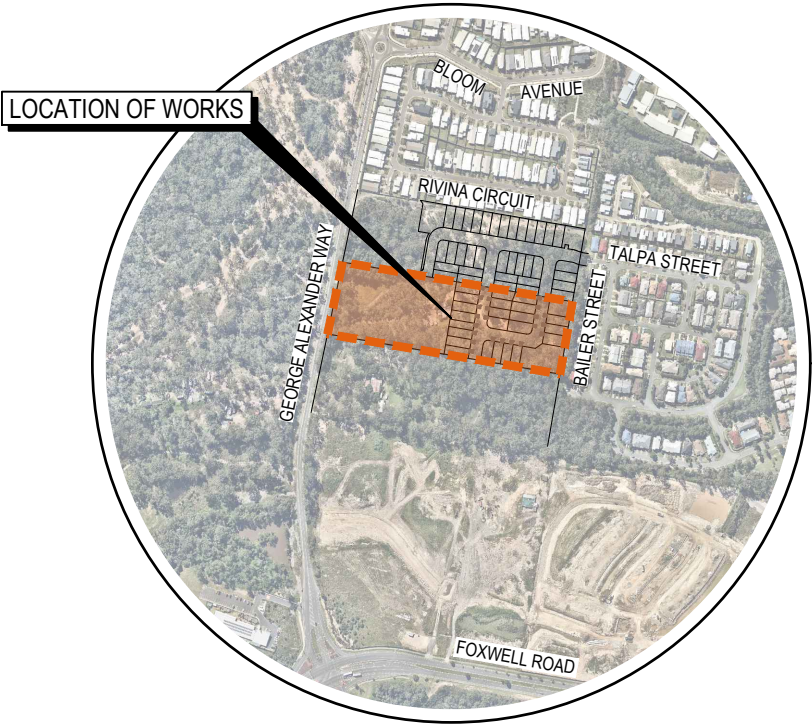
54 GEORGE ALEXANDER WAY, COOMERA

DEVELOPMENT APPLICATION

CITY OF GOLD COAST

DRAWING SCHEDULE

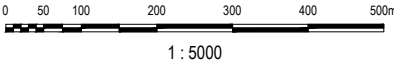
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EARTHWORKS	
0100	BULK EARTHWORKS CUT & FILL LAYOUT PLAN
0105	TYPICAL RETAINING WALL DETAILS
0110	BULK EARTHWORKS SECTIONS
ROADWORKS	
0210	ROADWORKS AND DRAINAGE LAYOUT PLAN
0211	ROADWORKS AND DRAINAGE DETAILS & NOTES
0220	PIONEER STREET AND MERCY STREET LONGITUDINAL SECTIONS
STORMWATER DRAINAGE	
0380	COMBINED DETENTION - BIO-RETENTION BASIN 1 LAYOUT PLAN
SERVICES	
0400	SEWER AND WATER RETICULATION LAYOUT PLAN

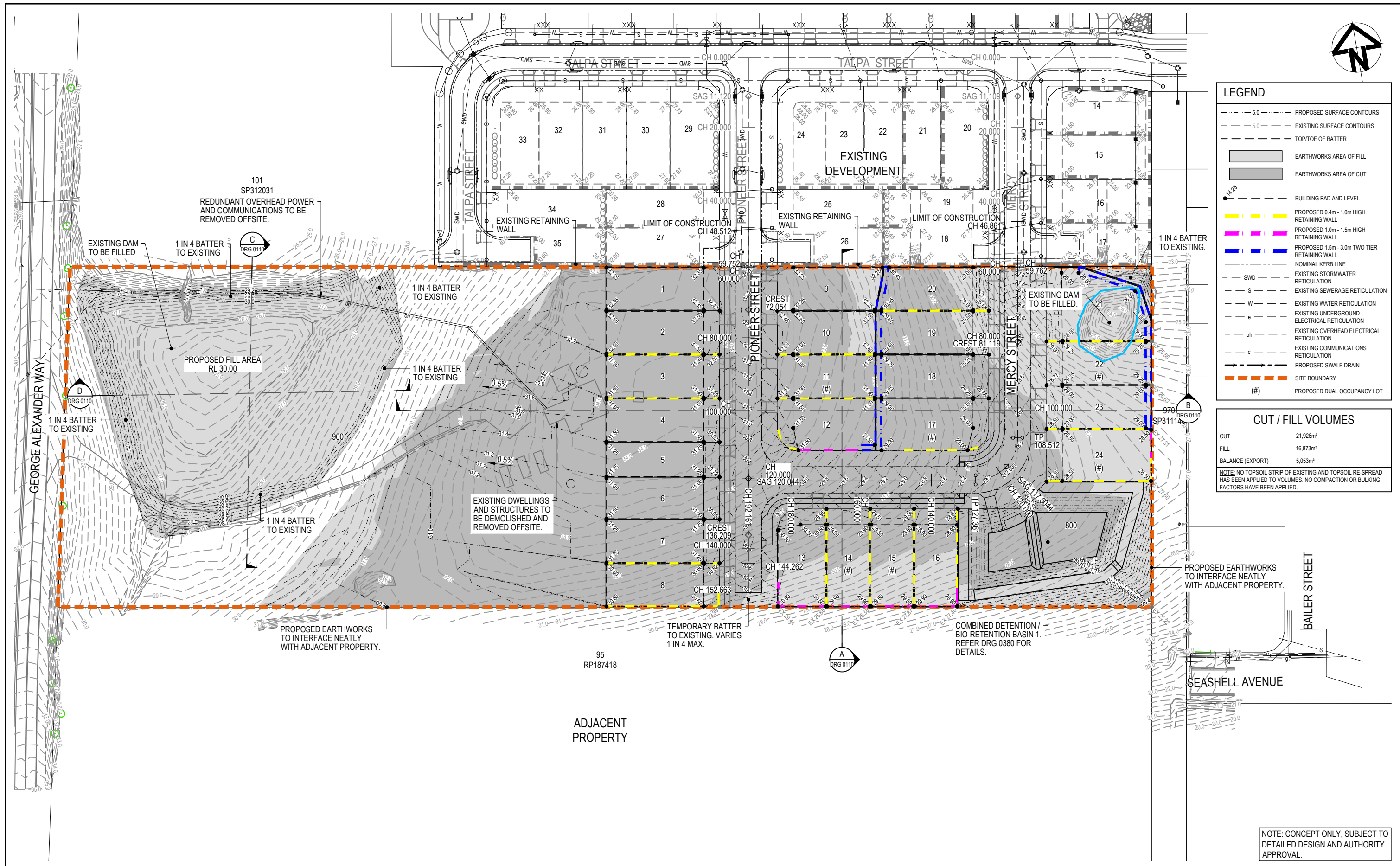


LOCALITY PLAN
1 : 5000

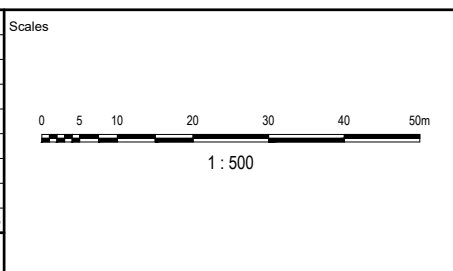
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Issue	Description	DR	CH	VE	Date										



01	ORIGINAL ISSUE	DK	GM	01.02.2023	
Issue	Description	DR	CH	VE	Date



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Verified			

Project

54 GEORGE ALEXANDER WAY,
COOMERA

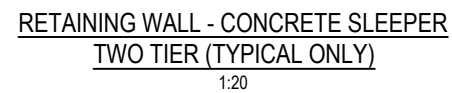
Title

BULK EARTHWORKS CUT
& FILL LAYOUT PLAN

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30157884 - DABA - 0000DA - CV - DRG - 0100 - 01



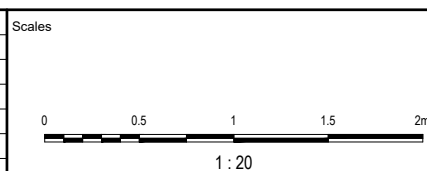
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30157884	DABA	- 0000DA	- CV	- DRG	- 0105	- 01

01	ORIGINAL ISSUE	DK	GM		01.02.2023
Issue	Description	DR	CH	VE	Date



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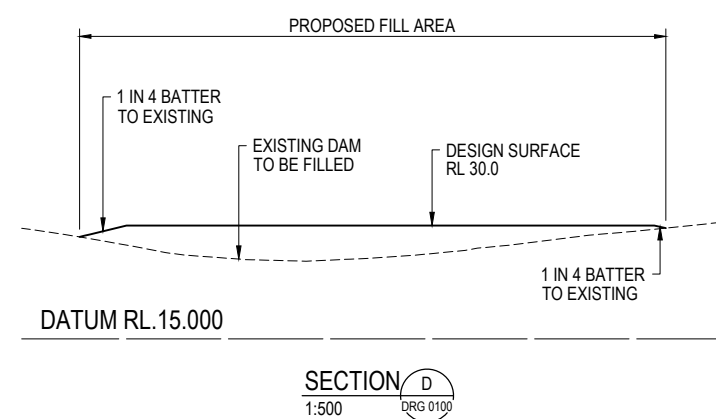
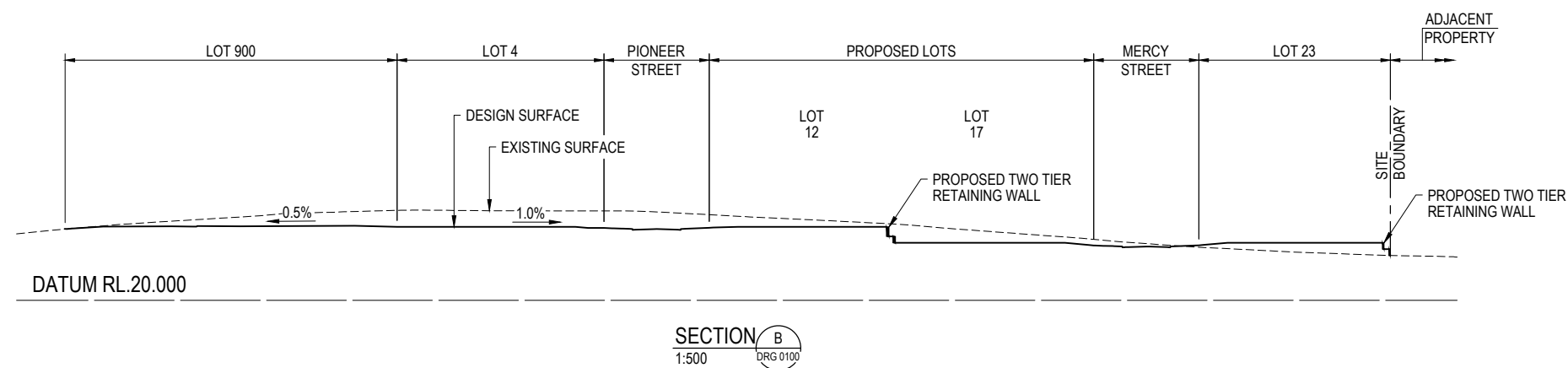


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Project	54 GEORGE ALEXANDER WAY, COOMERA
---------	-------------------------------------

	Title 6) TYPICAL RETAINING WALL DETAILS
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01	ORIGINAL ISSUE	DK	GM		01.02.2023
Issue	Description	DR	CH	VE	Date



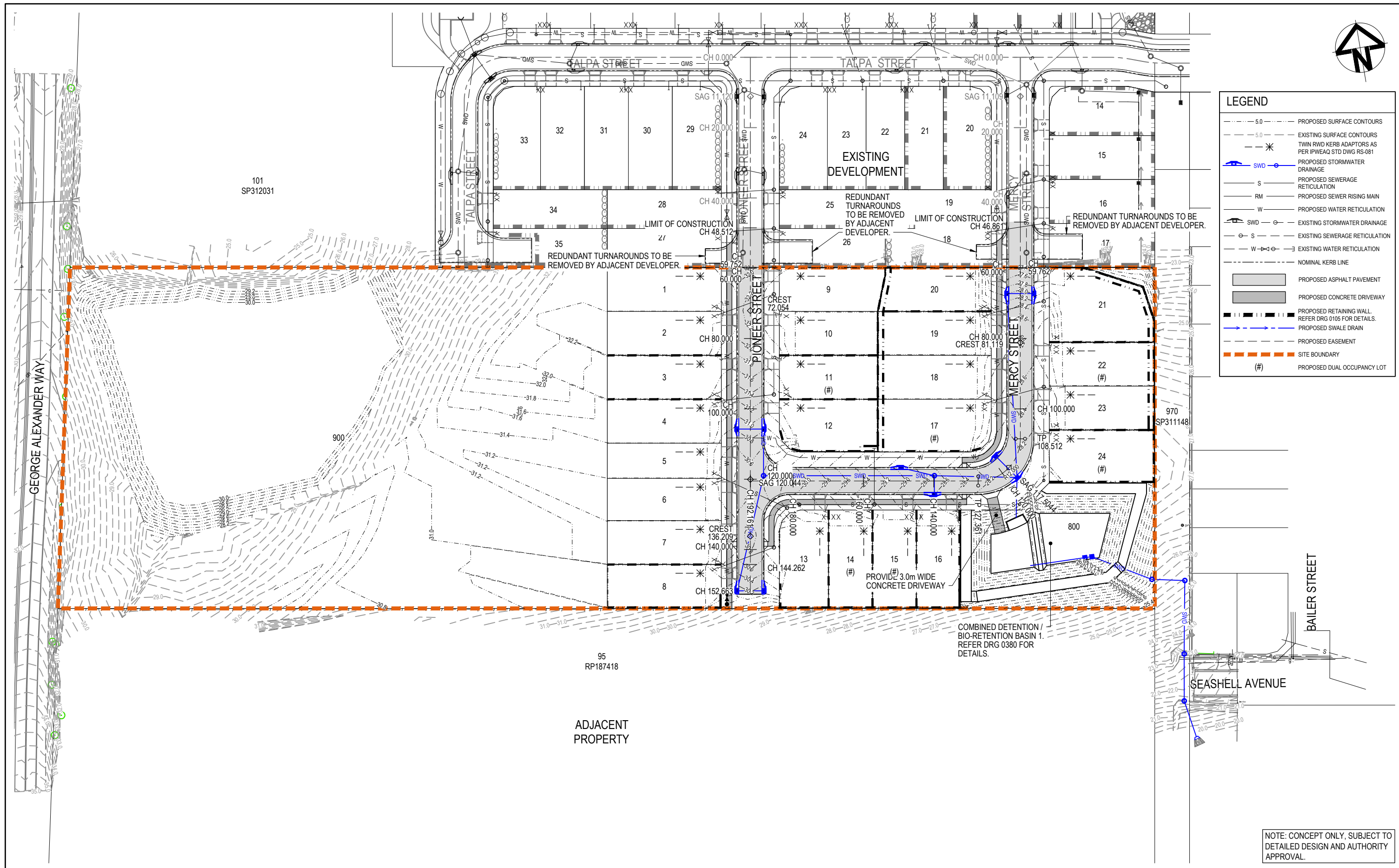
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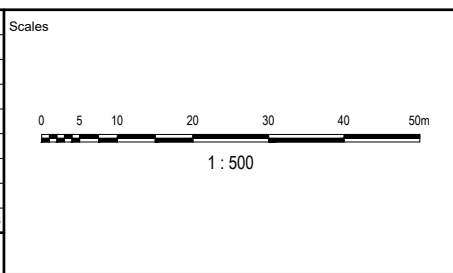
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30157884	DABA -	0000DA	CV	DRG	0110	01



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Issue	Description	DR	CH	VE	Date



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Project Manager	G. MENZIES	Grid	MGA (ZONE 56)	
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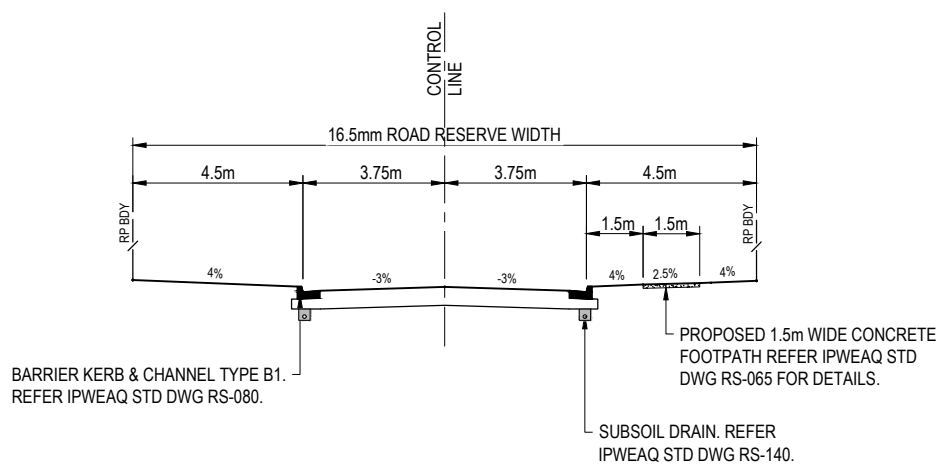
Project
54 GEORGE ALEXANDER WAY,
COOMERA

Title
ROADWORKS AND
DRAINAGE LAYOUT PLAN

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Project No. | Folder Prefix | Zone | Stage | Phase | Discipline | Type | Drawing No. | Issue

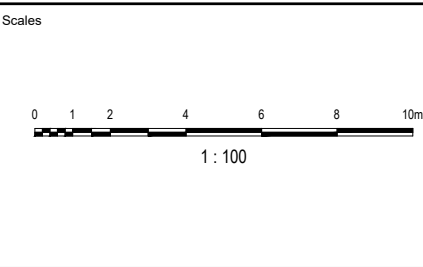
30157884 - DABA - 0000DA - CV - DRG - 0210 - 01



TYPICAL CROSS SECTION
PIONEER STREET AND MERCY STREET
RESIDENTIAL ACCESS STREET
SCALE 1 : 100

NOTE: CONCEPT ONLY, SUBJECT TO
DETAILED DESIGN AND AUTHORITY
APPROVAL.

01	ORIGINAL ISSUE	DK	GM		01.02.2023
Issue	Description	DR	CH	VE	Date



Surveyor

saunders
havill
group

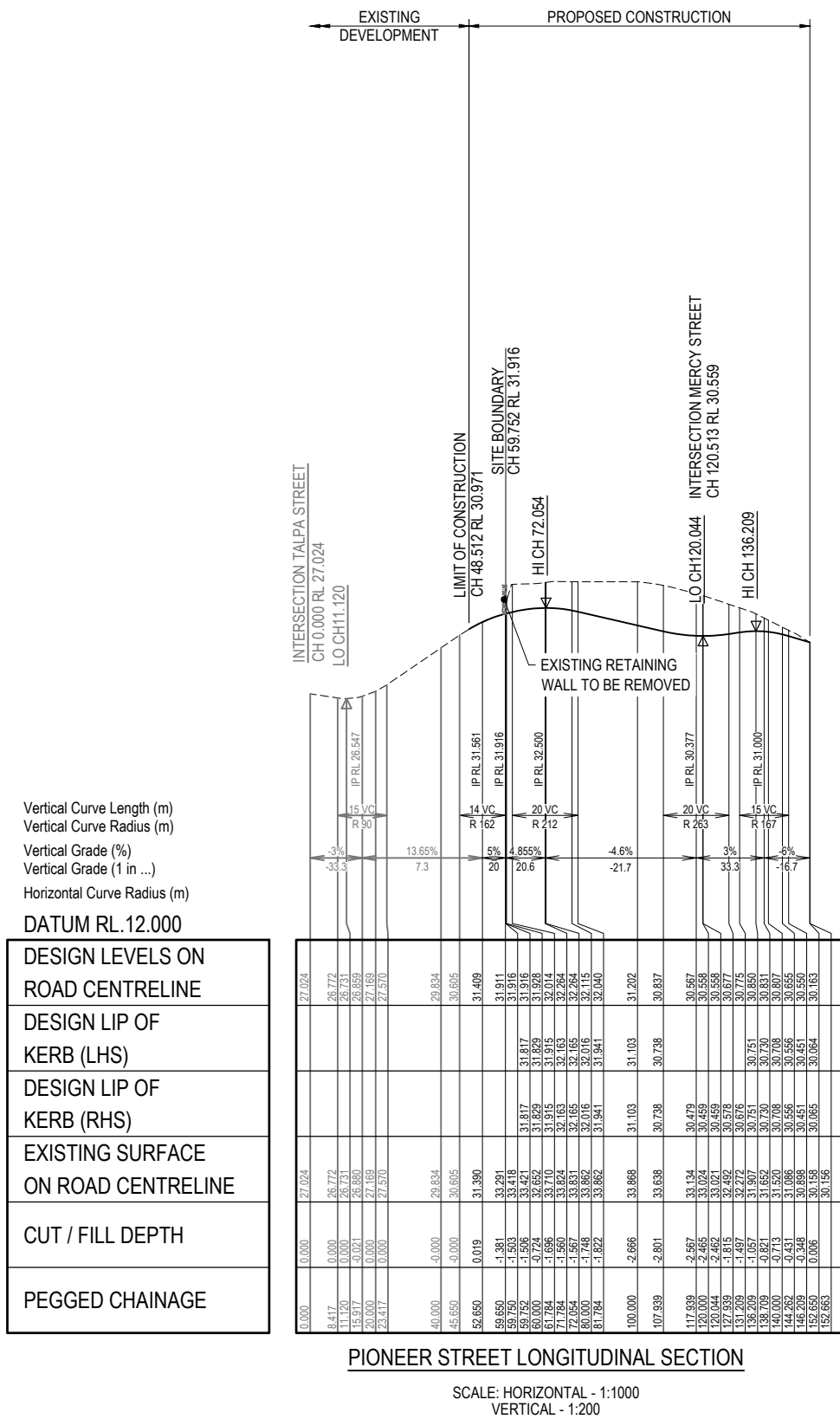
Coomera GA Pty Ltd
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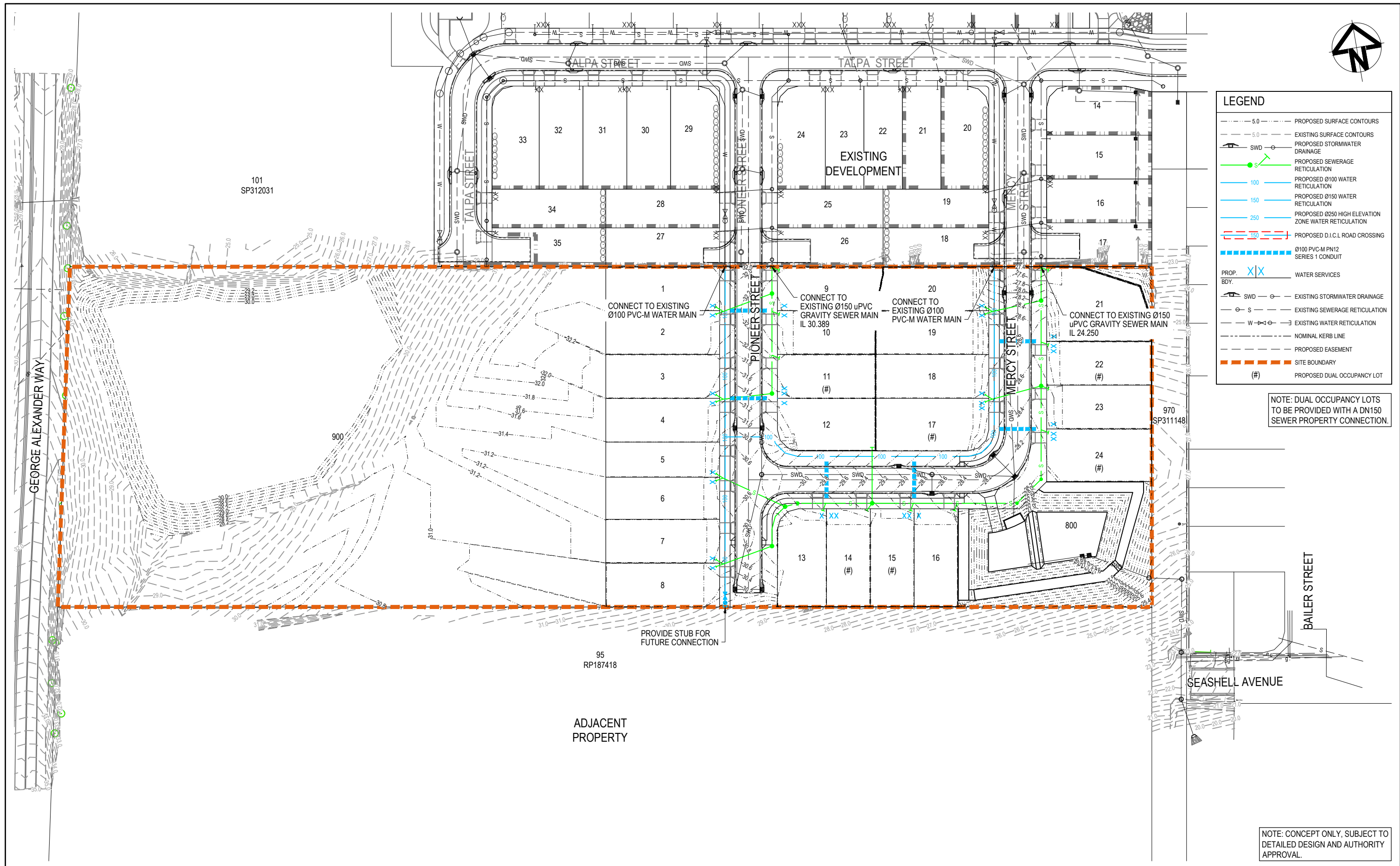
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Project Manager	G. MENZIES	Grid	MGA (ZONE 56)
Verified	.		

Project	54 GEORGE ALEXANDER WAY, COOMERA
Title	ROADWORKS AND DRAINAGE DETAILS & NOTES

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Project No.	Folker Prefix	Zone Stage Phase	Discipline	Type	Drawing No.	Issue
30157884	- DABA	- 0000DA	- CV	- DRG	- 0211	- 01





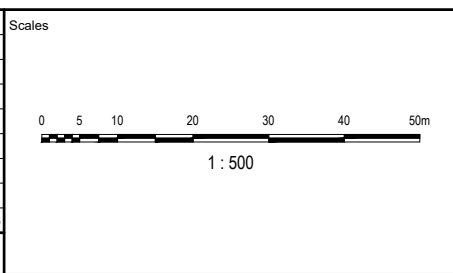
LEGEND

- 5.0 PROPOSED SURFACE CONTOURS
- 5.0 EXISTING SURFACE CONTOURS
- SWD PROPOSED STORMWATER DRAINAGE
- PROPOSED SEWERAGE RETICULATION
- 100 PROPOSED Ø100 WATER RETICULATION
- 150 PROPOSED Ø150 WATER RETICULATION
- 250 PROPOSED Ø250 HIGH ELEVATION ZONE WATER RETICULATION
- 150 PROPOSED D.I.C. ROAD CROSSING
- Ø100 PVC-M PN12 SERIES 1 CONDUIT
- PROP. X X WATER SERVICES
- BDY.
- SWD EXISTING STORMWATER DRAINAGE
- S EXISTING SEWERAGE RETICULATION
- W EXISTING WATER RETICULATION
- NOMINAL KERB LINE
- PROPOSED EASEMENT
- SITE BOUNDARY
- (#) PROPOSED DUAL OCCUPANCY LOT

NOTE: DUAL OCCUPANCY LOTS TO BE PROVIDED WITH A DN150 SEWER PROPERTY CONNECTION.

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN AND AUTHORITY APPROVAL.

01	ORIGINAL ISSUE	DK	GM	01.02.2023	
Issue	Description	DR	CH	VE	Date



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Verified	.			

Project

54 GEORGE ALEXANDER WAY,
COOMERA

Title

SEWER AND WATER
RETICULATION LAYOUT PLAN

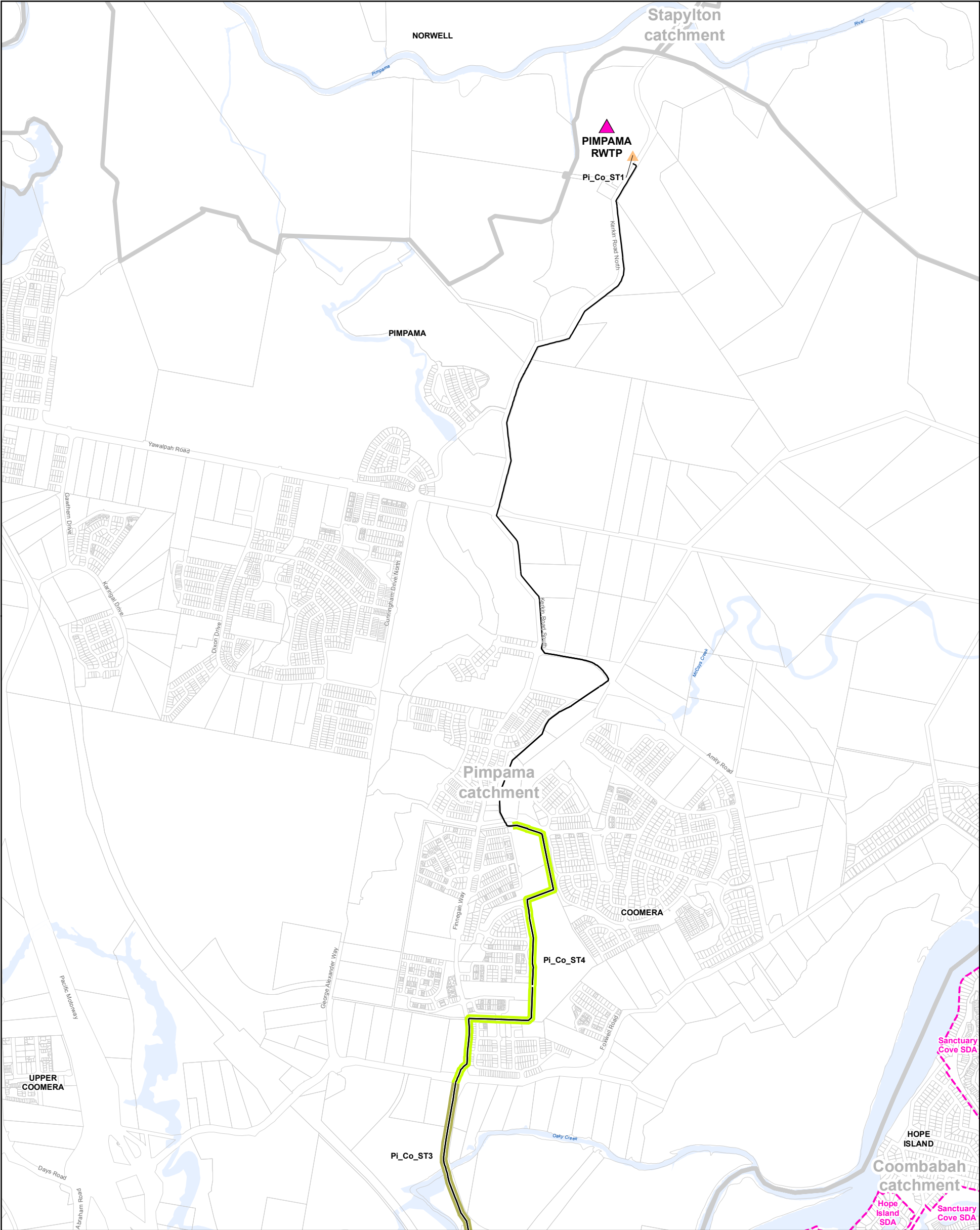
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ABN 76 104 485 289
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Project No.	Folker Prefix	Zone Stage Phase	Discipline	Type	Drawing No.	Issue
30157884 - DABA - 0000DA - CV - DRG - 0400 - 01						V1



APPENDIX B

COUNCIL INFRASTRUCTURE MAPS



2021

2026

2036

Ultimate

2021

2026

2036

Ultimate

2021

2036

Existing trunk recycled water release

Existing trunk recycled water treatment plant

Land affected by other development legislation, refer to Context map and Part 10 of the City Plan

Cadastre boundary

Local government area boundary

Waterway or waterbody

2021

2036

Sewerage service catchment

Existing trunk recycled water treatment plant

Land affected by other development legislation, refer to Context map and Part 10 of the City Plan

Cadastre boundary

Local government area boundary

Waterway or waterbody

15

21

22

23

26

27

28

32

33

37

38

44

0

150

300

600 m

Approx Scale @ A3 1:20,000

City Plan

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Map Version 3.00

18 Jul 2017

Data Sources:

Recycled water infrastructure - CoGC

Waterways - CoGC

Cadastre (February 2016) - State

Projection:

MGAS4

Zone 56

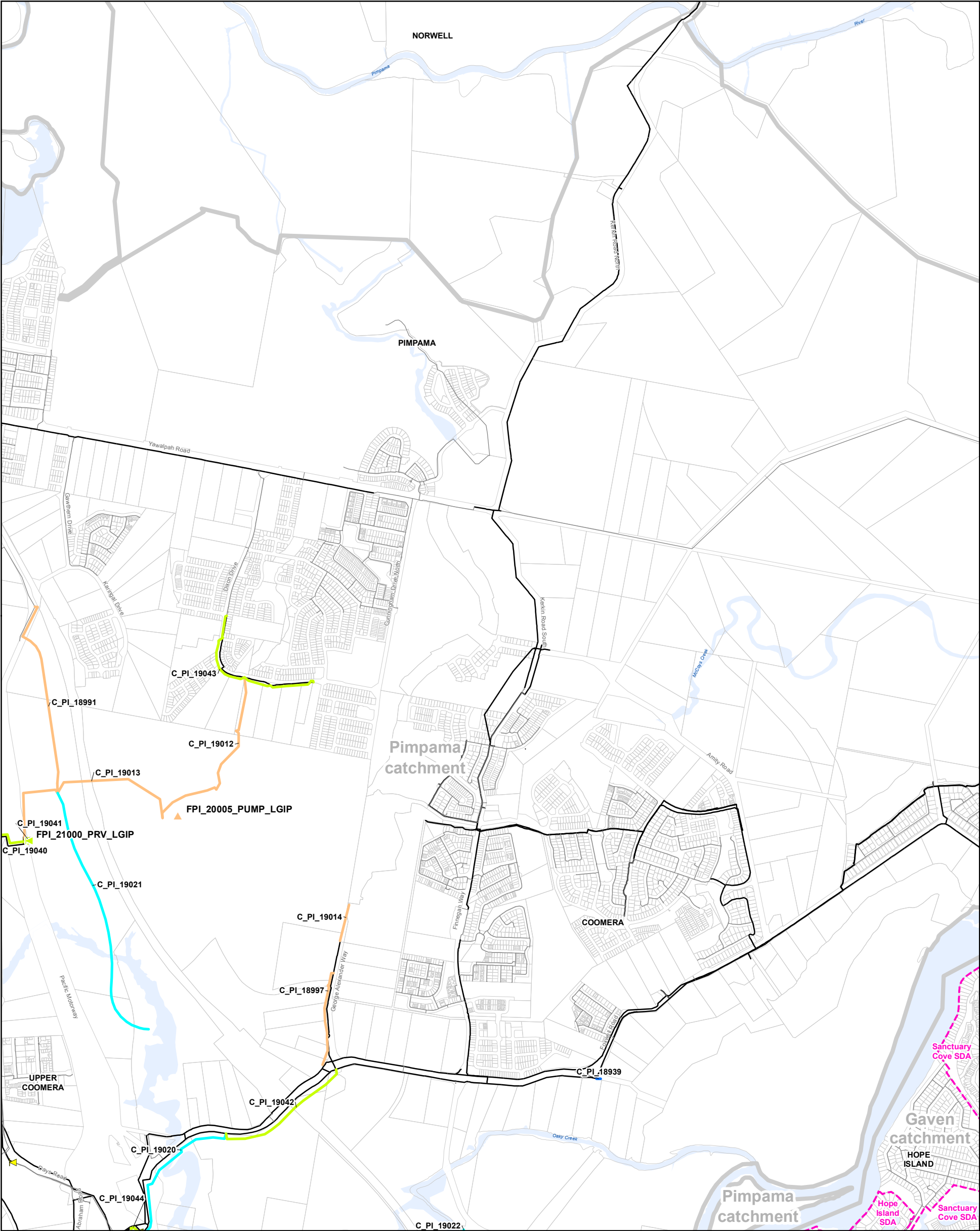
CITY OF

GOLDCOAST

LGIP-PFTI-SEW-RWR-15 (40k ref: 5)

City Plan Version 9

Local Government Infrastructure Plan Map - Plan for trunk water supply infrastructure - map 15



Existing infrastructure

Trunk

Non-trunk

New / augmented trunk infrastructure

2021

2026

2031

2036

Ultimate

Water main

Water pump station

Water reservoir

Water valve

Existing SEQ Water pump station

Existing SEQ Water reservoir

Water supply service catchment

Land affected by other development legislation, refer to Context map and Part 10 of the City Plan

Cadastre boundary

Local government area boundary

Waterway or waterbody

1

2

3

4

6

7

8

9

10

12

13

14

15

16

20

21

22

23

25

26

27

28

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53

City Plan

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Map Version 3.00

18 Jul 2017

Data Sources:

Water supply infrastructure - CoGC

Waterways - CoGC

Cadastre (February 2016) - State

Projection:

MGAS4

Zone 56

0

150

300

600 m

Approx Scale @ A3 1:20,000

CITY OF GOLD COAST

LGIP-PFTI-WAT-15 (40k ref: 5)

City Plan Version 9



APPENDIX C

DIAL BEFORE YOU DIG

All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62



DBYD

Sequence: 218922492

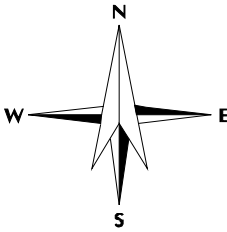
Date: 02/12/2022

Scale: 1:1538

OVERVIEW

For a full list of Map
Symbols, please
refer to the supplied
DBYD Symbology
Legend page

AS5488 Category "D" Plan



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All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62

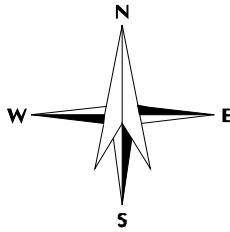


DBYD

Sequence: 218922492
Date: 02/12/2022
Scale: 1:500
Tile No: 1

For a full list of Map
Symbols, please
refer to the supplied
DBYD Symbolology
Legend page

AS5488 Category “D” Plan



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For Emergency Situations
please call 13 19 62

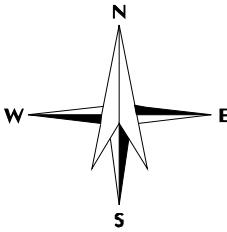


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Date: 02/12/2022
Scale: 1:500
Tile No: 2

For a full list of Map
Symbols, please
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For Emergency Situations
please call 13 19 62

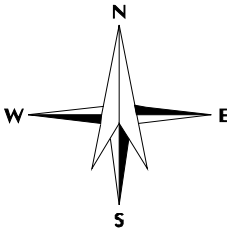


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Date: 02/12/2022
Scale: 1:500
Tile No: 3

For a full list of Map
Symbols, please
refer to the supplied
DBYD Symbology
Legend page

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All underground cables shall be treated as being energised. Where a cable is located that is not represented on the ENERGEX DBYD map, then ENERGEX shall be contacted immediately.

For Emergency Situations
please call 13 19 62

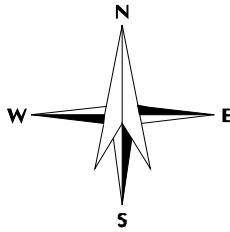


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Sequence: 218922492
Date: 02/12/2022
Scale: 1:500
Tile No: 4

For a full list of Map
Symbols, please
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DBYD Symbology
Legend page

AS5488 Category “D” Plan



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For Emergency Situations
please call 13 19 62

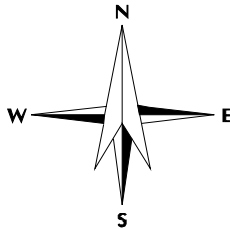


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Date: 02/12/2022
Scale: 1:500
Tile No: 5

For a full list of Map
Symbols, please
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DBYD Symbology
Legend page

AS5488 Category “D” Plan



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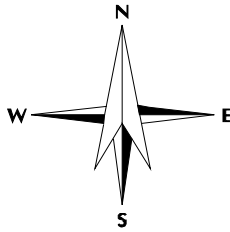


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Date: 02/12/2022
Scale: 1:500
Tile No: 6

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Symbols, please
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AS5488 Category “D” Plan



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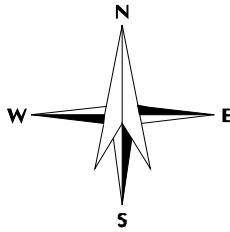


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Date: 02/12/2022
Scale: 1:500
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For a full list of Map
Symbols, please
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DBYD Symbology
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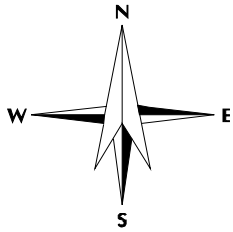


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Sequence: 218922492
Date: 02/12/2022
Scale: 1:500
Tile No: 8

For a full list of Map
Symbols, please
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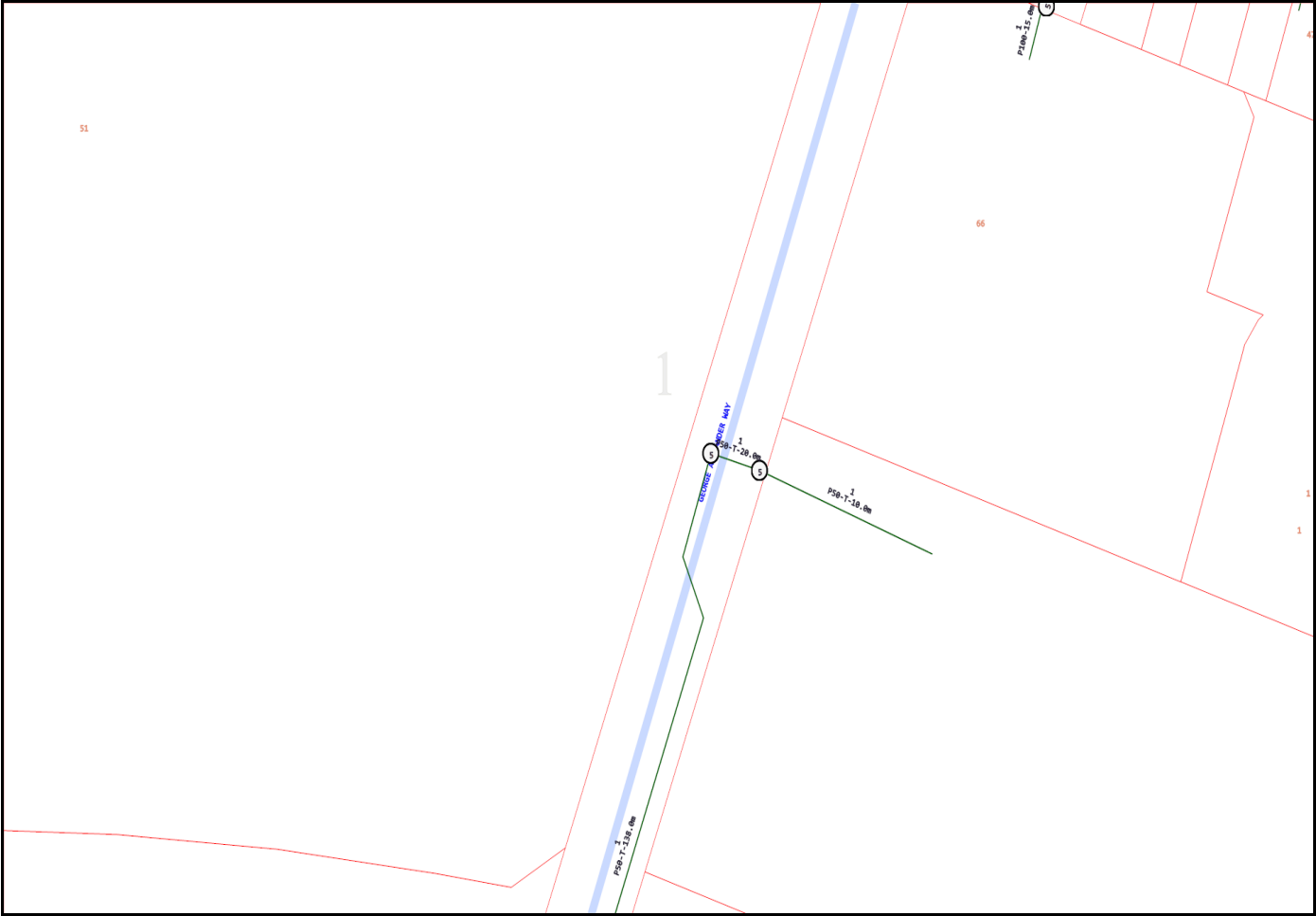
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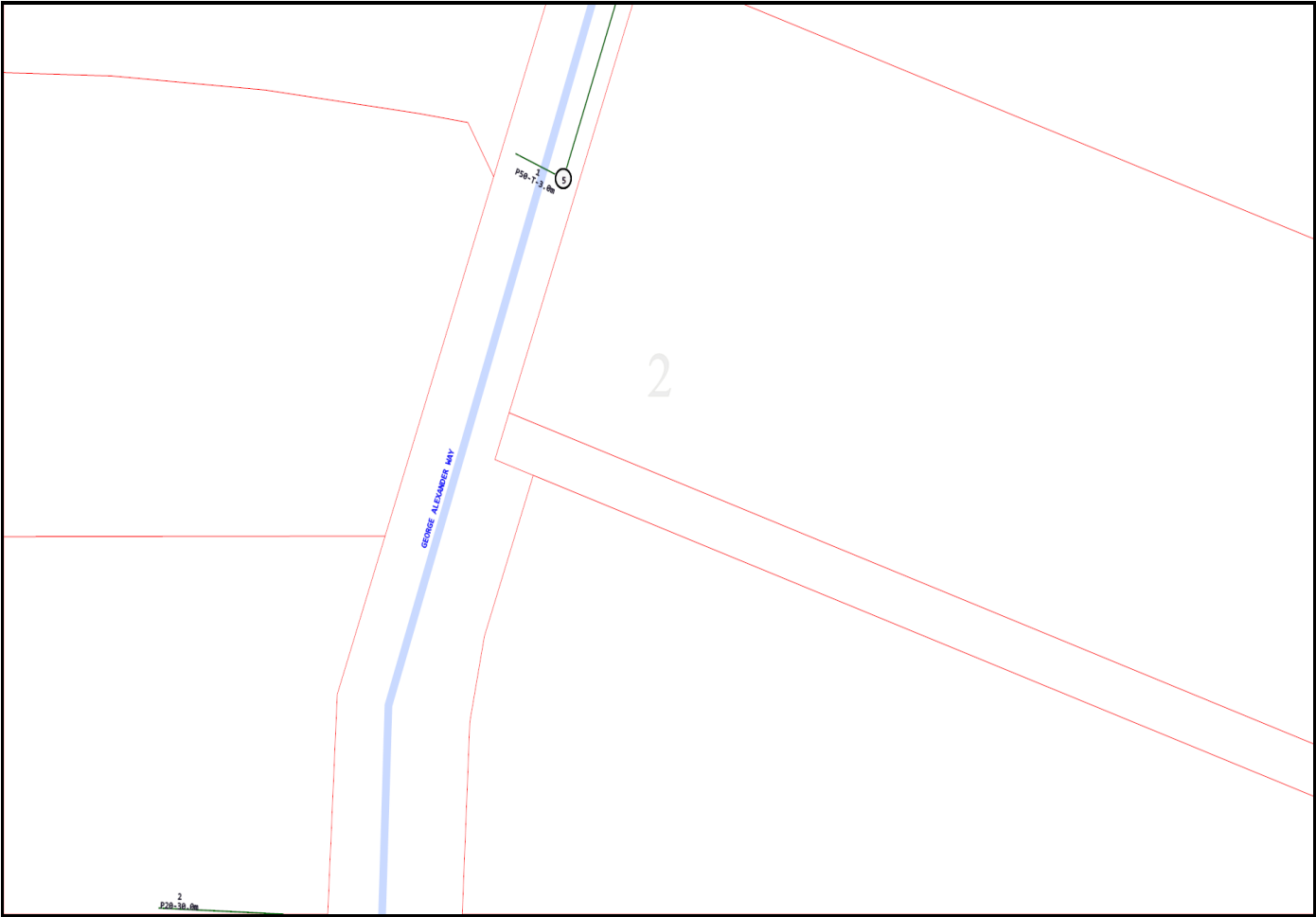


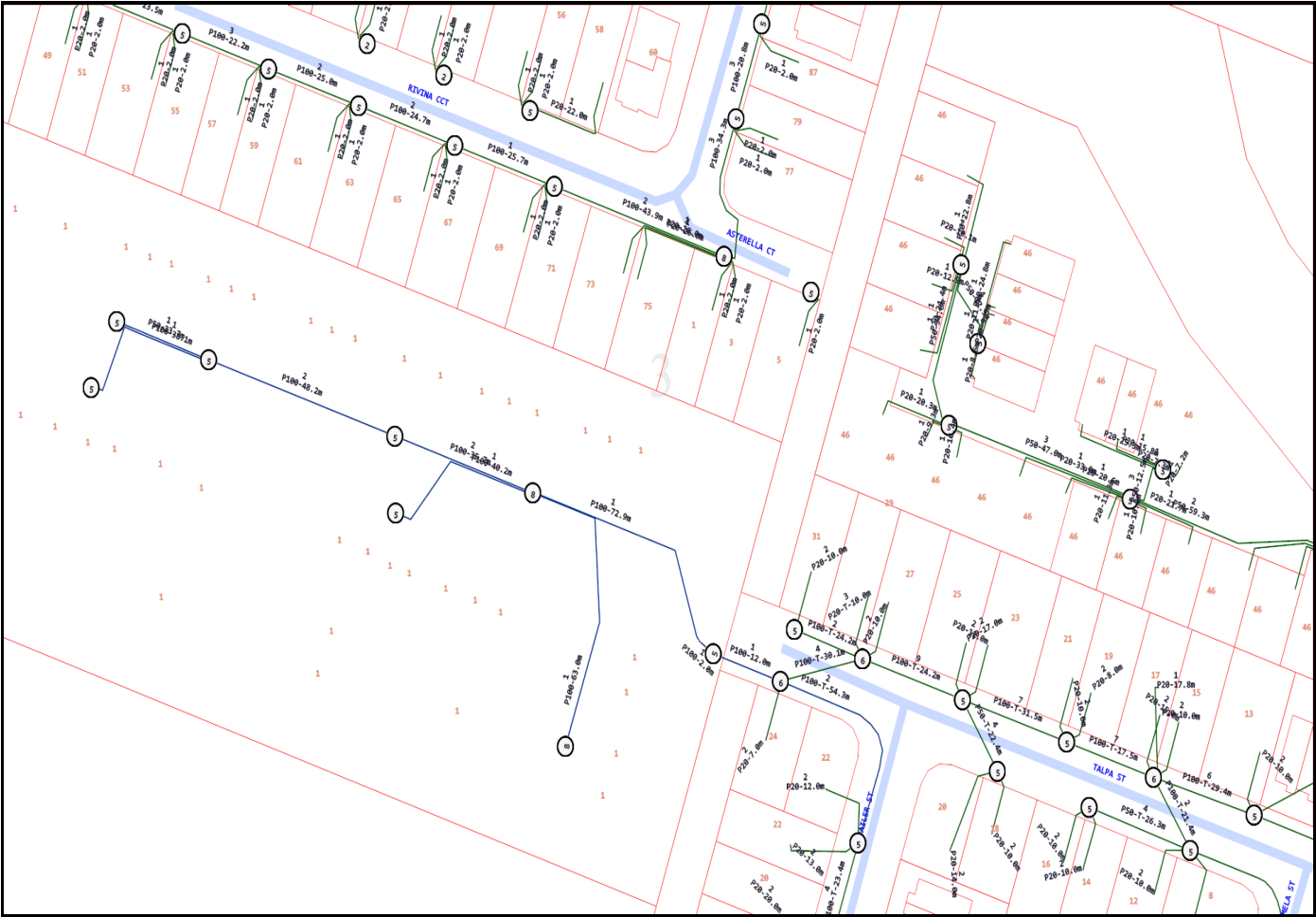
LEGEND



	Parcel and the location
	Pit with size "5"
	Power Pit with size "2E". Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.
	Manhole
	Pillar
	Cable count of trench is 2. One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart. One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart.
	2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.
	Trench containing any INSERVICE/CONSTRUCTED (Copper/RF/Fibre) cables.
	Trench containing only DESIGNED/PLANNED (Copper/RF/Fibre/Power) cables.
	Trench containing any INSERVICE/CONSTRUCTED (Power) cables.
	Road and the street name "Broadway ST"
Scale	0 20 40 60 Meters 1:2000 1 cm equals 20 m



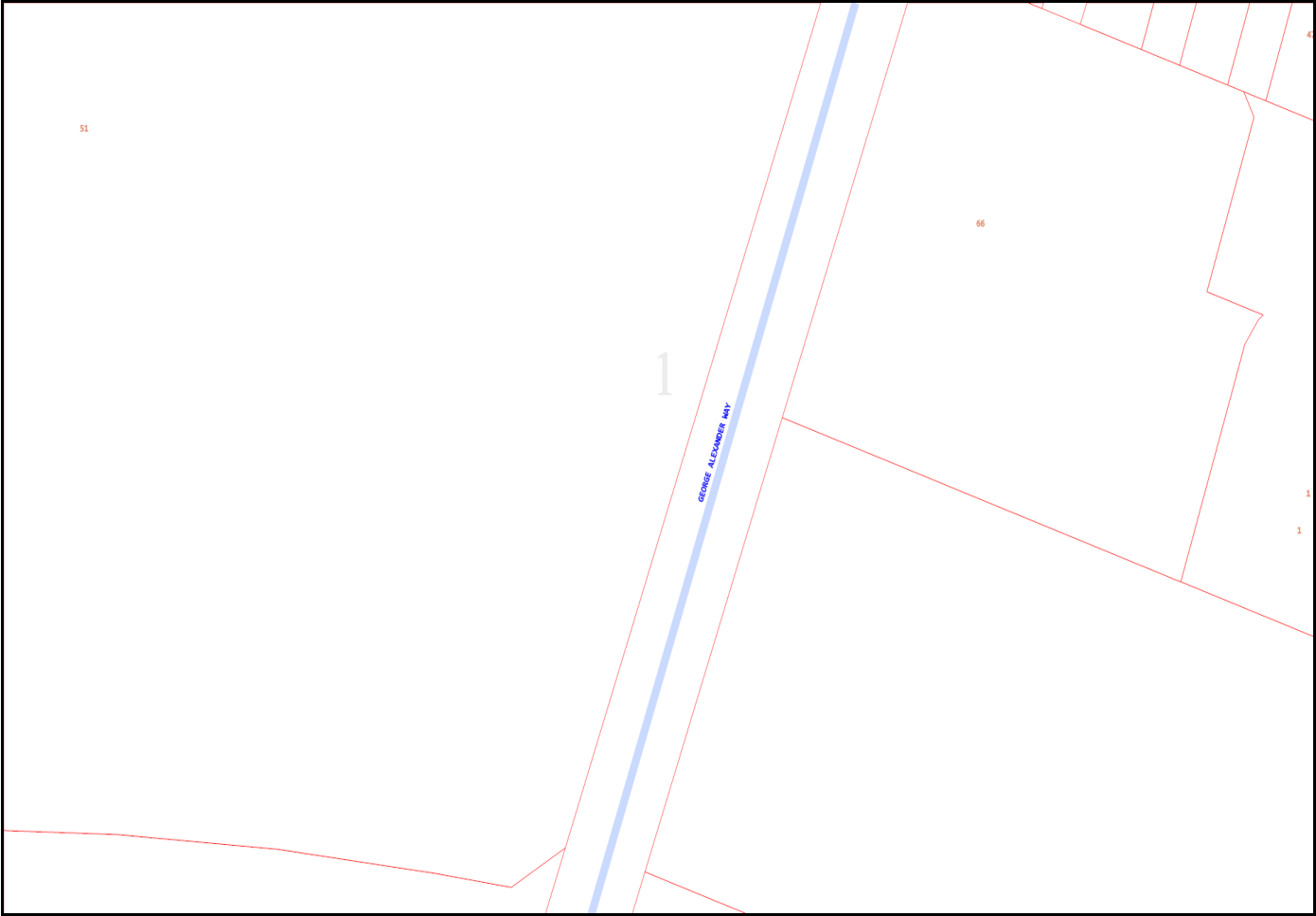


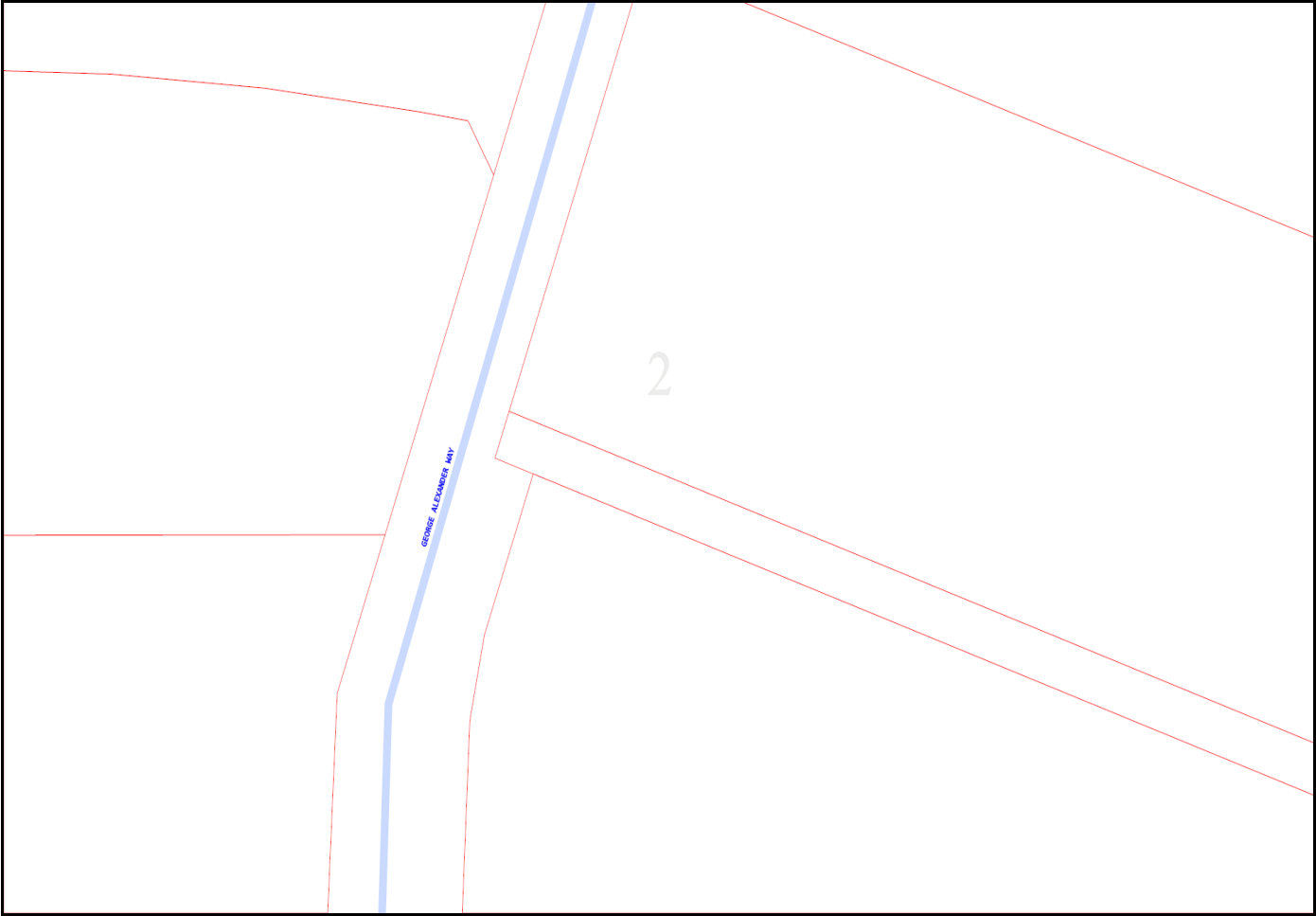


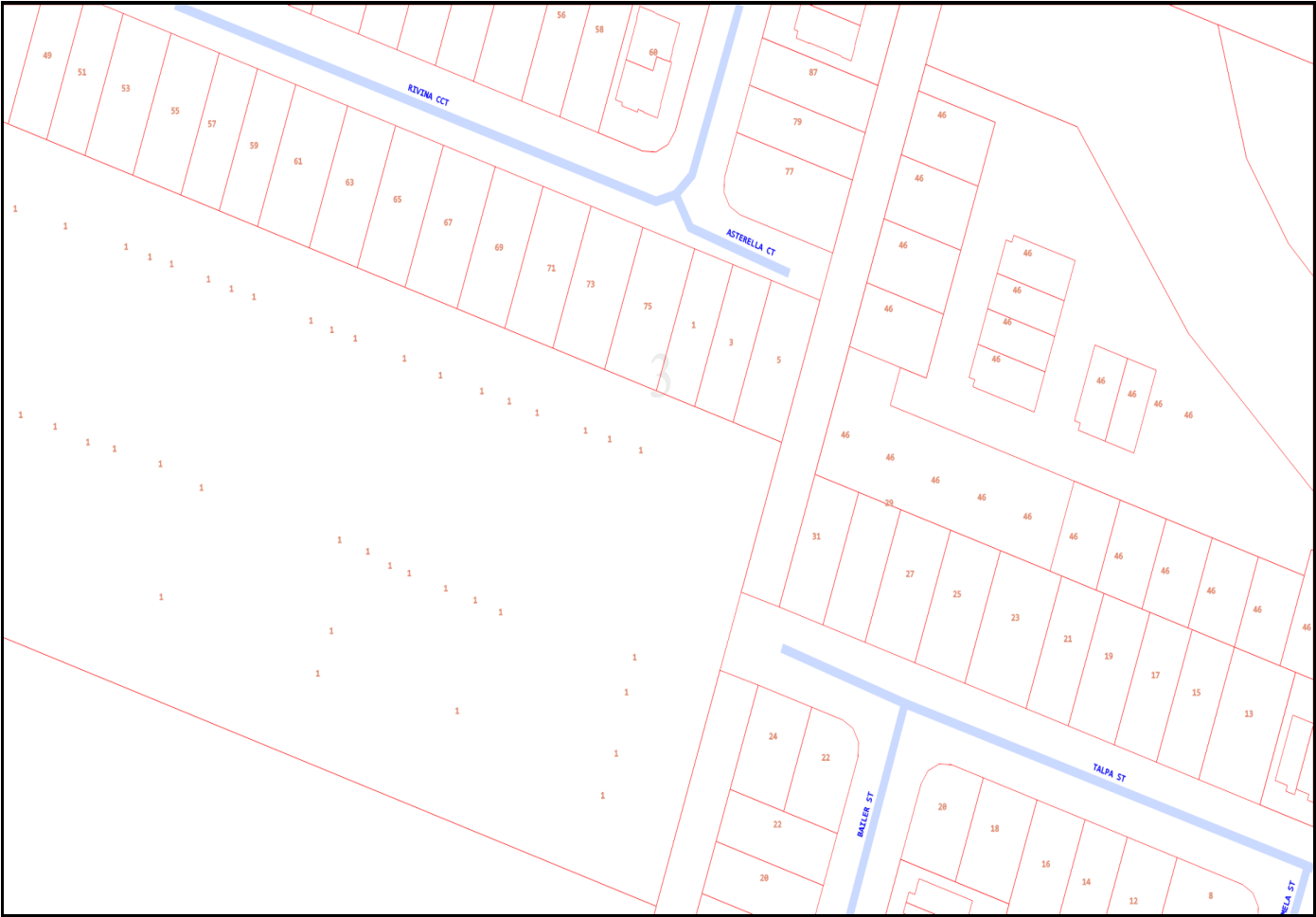


Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.





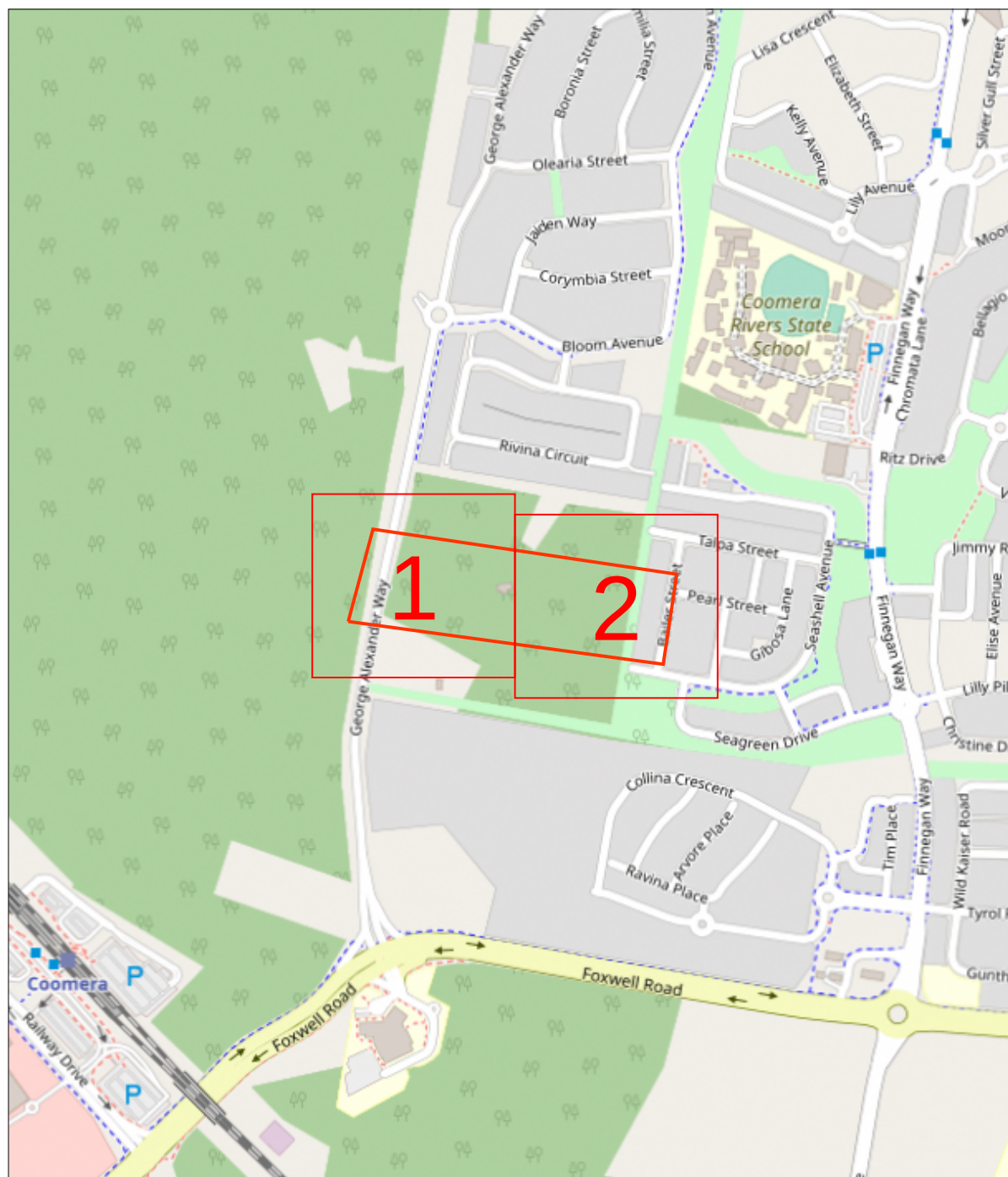




Emergency Contacts

You must immediately report any damage to the **nbn™** network that you are/become aware of. Notification may be by telephone - 1800 626 329.

Site Address	54 George Alexander Way Coomera 4209	Sequence No	218922494
Name	Gabrielle Djelovic		
Email	gabby.djelovic@arcadis.com		



Scale 1: 6000



Enquiry Area

Map Key Area



APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

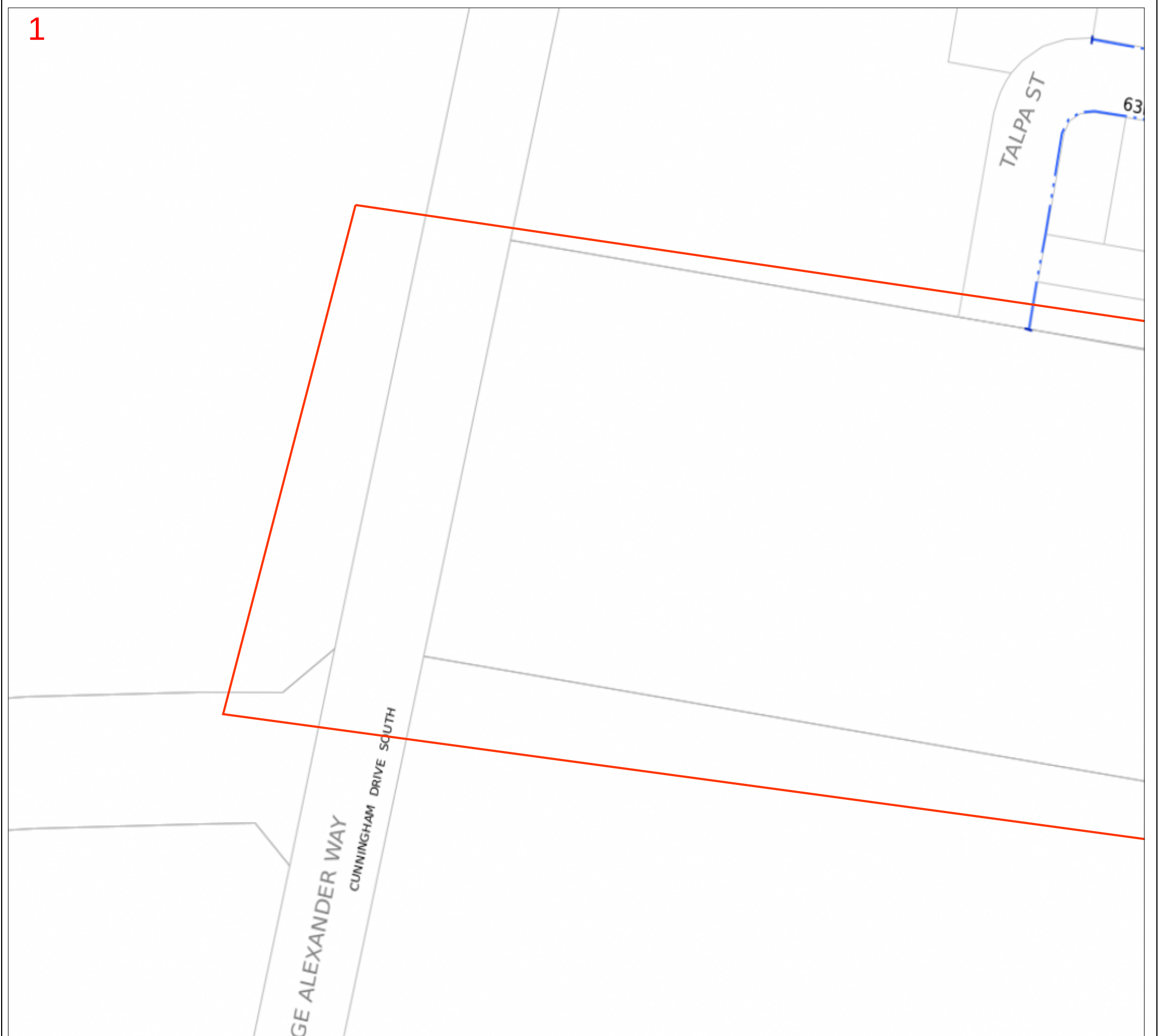
Mapping information is provided as AS5488-2013 Quality Level D

APA Group • PO Box 6014 Halifax Street SA 5000 • Email: DBYDNetworksAPA@apa.com.au • Template: QLD Critical Jan 2022

Page 4 of 9 • 02/12/2022

Site Address	54 George Alexander Way Coomera 4209	Sequence No	218922494
--------------	---	-------------	-----------

Before you commence any works you are required to complete the attached 'Work In The Vicinity Of Critical Gas Assets' request form and forward this to APA as soon as practicable.



PIPE AND BOUNDARIES		PIPE CODE / MATERIALS		OBJECTS or TERMS	
SERVICE (COLOUR BY PRESSURE)		C2, CI	Cast Iron	VALVES	
LOW PRESSURES		CU	Copper	BURIED VALVES	
MEDIUM PRESSURES		N2, NY, NY11	Nylon	GATE / REGULATORS	
HIGH PRESSURES		P# (e.g. P6)	Polyethylene (PE)	GAS SUPPLIED = YES	
TRANSMISSION PRESSURES		P6,P7,P9-P12	Medium Density PE	CP RECTIFIER UNIT	
PRIORITY MAIN (BEHIND PIPE)		P2,P4,P8	High Density PE	CP TEST POINT/ ANODE	
PROPOSED (COLOUR BY PRESSURE)		ST or S#	Steel	SYPHON	
LPG (COLOUR BY PRESSURE)		S6# (e.g. S61)	Steel Class 600	TRACE WIRE POINT	
ABANDONED		S3# (e.g. S33)	Steel Class 300	PIPELINE MARKER	
IDLE		W2 or GAL	Wrought Galv. Iron	NOT TIED IN	N.T.I.
SLEEVE		W3 or PGAL	Poly Coat Wrought Galv. Iron	COUPLING & END CAP	
CASING / SPLIT (BEHIND PIPE)		<i>Pipe diameter in millimetres is shown before pipe code e.g. 40P6 = 40mm nominal diameter</i>		DEPTH OF COVER	C
UNKNOWN					
EASEMENT/ JURISDICTION					
EXAMPLES					
		40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing			
		63mm Medium Pressure Steel			

Map Key



Line / Polygon Request

This map is created in colour and shall be printed in colour

Scale 1:700

0 0.008km



APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

Site Address	54 George Alexander Way Coomera 4209	Sequence No	218922494
--------------	---	-------------	-----------

Before you commence any works you are required to complete the attached 'Work In The Vicinity Of Critical Gas Assets' request form and forward this to APA as soon as practicable.



PIPE AND BOUNDARIES		PIPE CODE / MATERIALS		OBJECTS or TERMS		Map Key
SERVICE (COLOUR BY PRESSURE)		C2, CI	Cast Iron	VALVES		
LOW PRESSURES		CU	Copper	BURIED VALVES		
MEDIUM PRESSURES		N2, NY, NY11	Nylon	GATE / REGULATORS		
HIGH PRESSURES		P# (e.g. P6)	Polyethylene (PE)	GAS SUPPLIED = YES		
TRANSMISSION PRESSURES		P6,P7,P9-P12	Medium Density PE	CP RECTIFIER UNIT		
PRIORITY MAIN (BEHIND PIPE)		P2,P4,P8	High Density PE	CP TEST POINT/ ANODE		
PROPOSED (COLOUR BY PRESSURE)		ST or S#	Steel	SYPHON		
LPG (COLOUR BY PRESSURE)		S6# (e.g. S61)	Steel Class 600	TRACE WIRE POINT		
ABANDONED		S3# (e.g. S33)	Steel Class 300	PIPELINE MARKER		
IDLE		W2 or GAL	Wrought Galv. Iron	NOT TIED IN	N.T.I.	
SLEEVE		W3 or PGAL	Poly Coat Wrought Galv. Iron	COUPLING & END CAP		
CASING / SPLIT (BEHIND PIPE)		<i>Pipe diameter in millimetres is shown before pipe code e.g. 40P6 = 40mm nominal diameter</i>		DEPTH OF COVER	C	
UNKNOWN						
EASEMENT/ JURISDICTION						
EXAMPLES						
		40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing				
		63mm Medium Pressure Steel				
		Line / Polygon Request				
This map is created in colour and shall be printed in colour						

Scale 1:700

00.008km



	Report Damage: https://service.telstra.com.au/customer/general/forms/report-damage-to-telstra-equipment Ph - 13 22 03 Email - Telstra.Plans@team.telstra.com Planned Services - ph 1800 653 935 (AEST bus hrs only) General Enquiries	Sequence Number: 218922495
TELSTRA CORPORATION LIMITED A.C.N. 051 775 556 Generated On 02/12/2022 11:42:15		Please read Duty of Care prior to any excavating

The above plan must be viewed in conjunction with the Mains Cable Plan on the following page

WARNING

Telstra plans and location information conform to Quality Level "D" of the Australian Standard AS 5488-Classification of Subsurface Utility Information.

As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D.

Refer to AS 5488 for further details. The exact position of Telstra assets can only be validated by physically exposing it.

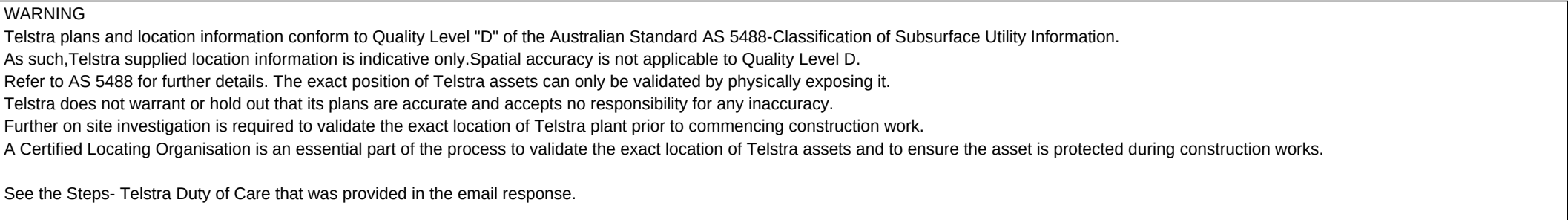
Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy.

Further on site investigation is required to validate the exact location of Telstra plant prior to commencing construction work.

A Certified Locating Organisation is an essential part of the process to validate the exact location of Telstra assets and to ensure the asset is protected during construction works.

See the Steps- Telstra Duty of Care that was provided in the email response.

Page 1 of 2

[illegible]



DBYD SYMBOLOLOGY LEGEND

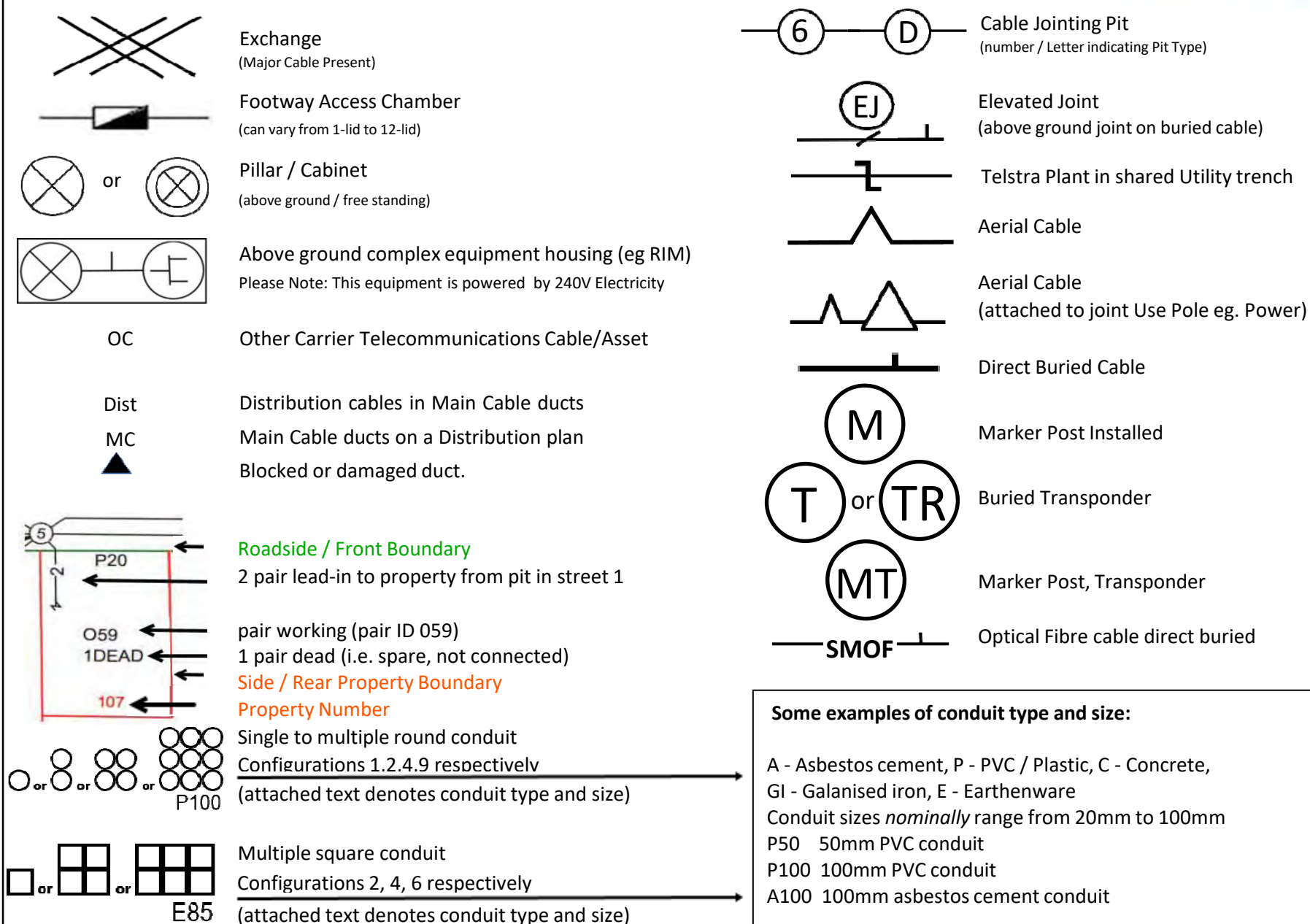
	Cross Bonding Link Box - Critical		Planned Cross Bonding Link Box - New/Updated
	Disconnect Box - Critical		Planned Cross Bonding Link Box - Remove
	Ring Main Unit		Planned Disconnect Box - New/Updated
	Distribution Pad Substation		Planned Disconnect Box - Remove
	Earth		Planned Distribution Pad Substation - New/Updated
	Remote Earth		Planned Distribution Pad Substation - Remove
	Cable Marker		Planned Distribution Ground Substation - New/Updated
	Handhole		Planned Distribution Ground Substation - Remove
	Manhole		Planned Ring Main Unit - New/Updated
	Commercial Industrial Pillar		Planned Ring Main Unit - Remove
	Distribution Cabinet		Planned Earth - New/Updated
	Link Pillar		Planned Earth - Remove
	Service Pillar		Planned Cable Marker - New/Updated
	Feeder Pillar		Planned Cable Marker - Remove
	Pole		Planned Remote Earth - New/Updated
	Streetlight Column		Planned Remote Earth - Remove
	Communication Junction Pillar		Planned Underground Warning Post - New/Updated
	Communication Pit		Planned Underground Warning Post - Remove
	Fibre Patch Panel		Planned Pilot Cubicle - New/Updated
	Pilot Cubicle		Planned Pilot Cubicle - Remove
	Underground Asset 33kV and above		Planned Fibre Patch Panel - New/Updated
	Underground Asset below 33kV		Planned Fibre Patch Panel - Remove
	Underground Conduit with or without cable		Planned Commercial Industrial Pillar - New/Updated
	Pit		Planned Commercial Industrial Pillar - Remove
	Communication Boundary		Planned Distribution Cabinet - New/Updated
	Reserve (RE)		Planned Distribution Cabinet - Remove
	Water Resource (WR)		Planned Link Pillar - New/Updated
	Cadastral Parcels		Planned Link Pillar - Remove
	Planned Jointing Pit - New/Updated		Planned Service Pillar - New/Updated
	Planned Jointing Pit - Remove		Planned Service Pillar - Remove
	Planned Communication Boundary - New/Updated		Planned Pole - New/Updated
	Planned Communication Boundary - Remove		Planned Pole - Remove
	Planned Tunnel/Trench/Bore - New/Updated		Planned Manhole - New/Updated
	Planned Tunnel/Trench/Bore - Remove		Planned Manhole - Remove
			Planned Streetlight Column - New/Updated
			Planned Streetlight Column - Remove
			Planned Handhole - New/Updated
			Planned Handhole - Remove
			Planned Communication Junction Pillar - New/Updated
			Planned Communication Junction Pillar - Remove

LEGEND

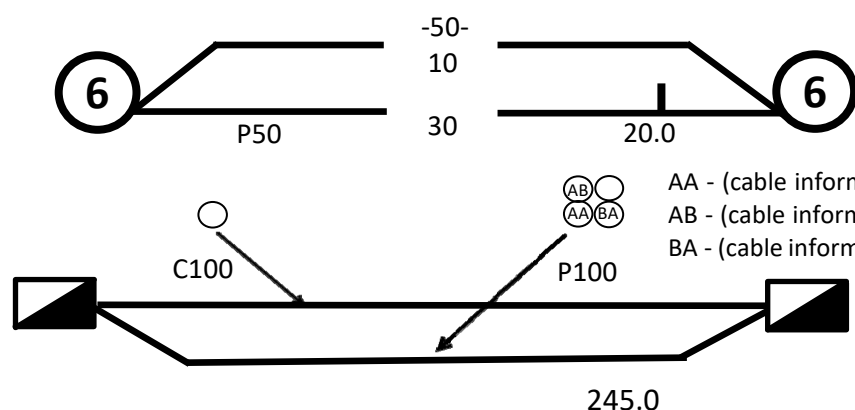
IT'S HOW
WE CONNECT



For more info contact a [Certified Locating Organisation](#) or Telstra Plan Services 1800 653 935



Some Examples of how to read Telstra Plans



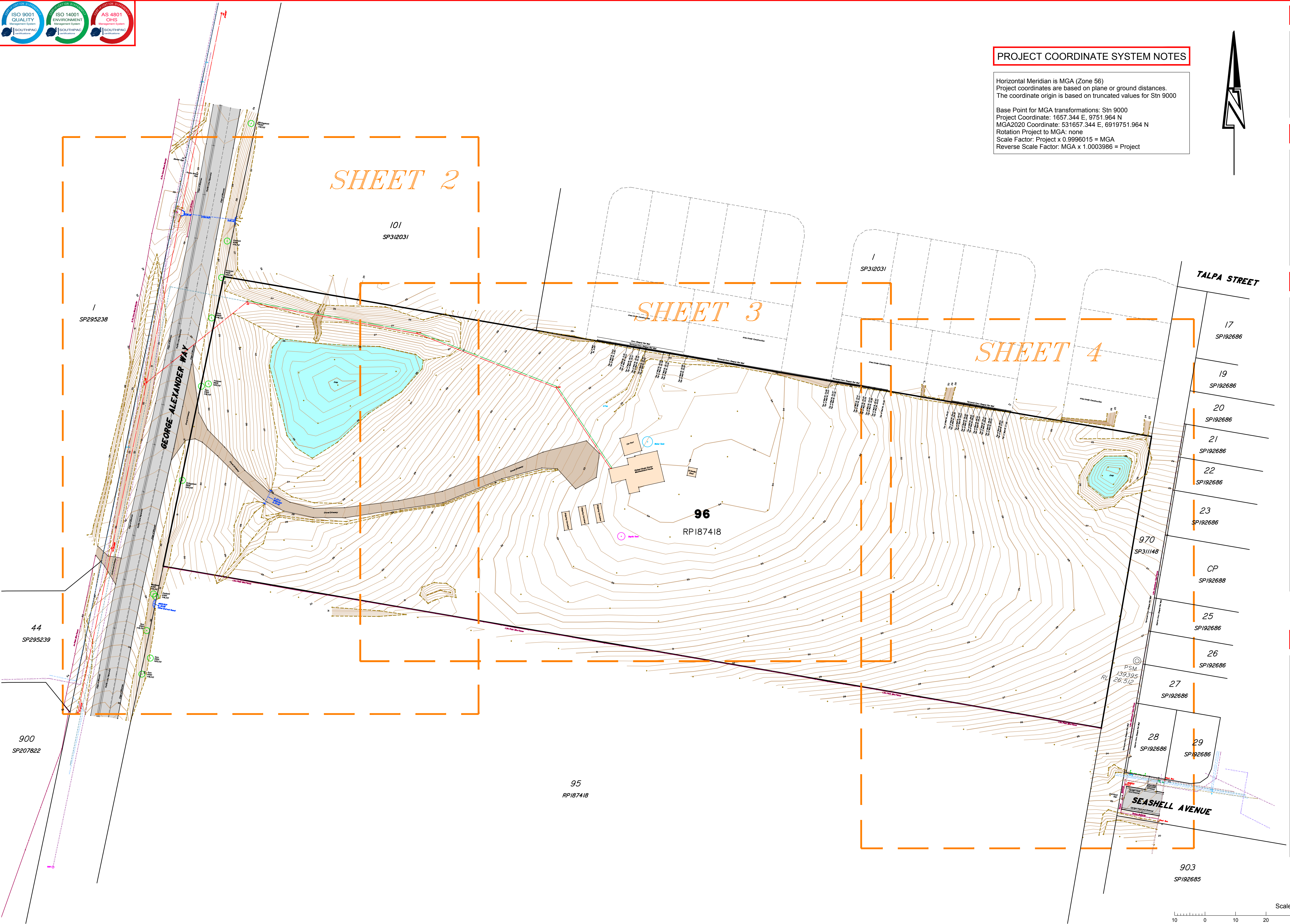
One 50mm PVC conduit (P50) containing a 50-pair and a 10-pair cable between two 6-pits. approximately 20.0m apart, with a direct buried 30-pair cable along the same route

Two separate conduit runs between two footway access chambers (manholes) approximately 245m apart A nest of four 100mm PVC conduits (P100) containing assorted cables in three ducts (one being empty) and one empty 100mm concrete duct (C100) along

WARNING: Telstra plans and location information conform to Quality Level 'D' of the Australian Standard AS 5488 - Classification of Subsurface Utility Information. As such, Telstra supplied location information is indicative only. Spatial accuracy is not applicable to Quality Level D. Refer to AS 5488 for further details. Telstra does not warrant or hold out that its plans are accurate and accepts no responsibility for any inaccuracy shown on the plans. FURTHER ON SITE INVESTIGATION IS REQUIRED TO VALIDATE THE EXACT LOCATION OF TELSTRA PLANT PRIOR TO COMMENCING CONSTRUCTION WORK. A plant location service is an essential part of the process to validate the exact location of Telstra assets and to ensure the assets are protected during construction works. The exact position of Telstra assets can only be validated by physically exposing them. Telstra will seek compensation for damages caused to its property and losses caused to Telstra and its customers.

APPENDIX D

SURVEY



PROJECT COORDINATE SYSTEM NOTES

Horizontal Meridian is MGA (Zone 56)
Project coordinates are based on plane or ground distances.
The coordinate origin is based on truncated values for Stn 9000

Base Point for MGA transformations: Stn 9000
Project Coordinate: 1657.344 E, 9751.964 N
MGA2020 Coordinate: 531657.344 E, 6919751.964 N
Rotation Project to MGA: none
Scale Factor: Project x 0.9996015 = MGA
Reverse Scale Factor: MGA x 1.0003986 = Project

LEGEND

Quality levels are shown on linetypes along with service type eg.
—E(A)— First Letter is the Service (Elec) and the second is Quality Level (A)

	by Survey	by Records
U/G ELECTRICITY	—E(A)—	—E(D)—
O/H ELECTRICITY	—E—	—E—
U/G TELECOMMUNICATIONS	—T(A)—	—T(D)—
O/H TELECOMMUNICATIONS	—T—	—T—
U/G DRAINAGE	—D(A)—	—D(D)—
O/H DRAINAGE	—D—	—D—
SEWERAGE	—S(A)—	—S(D)—
WATER	—W(A)—	—W(D)—
GAS	—G(A)—	—G(D)—
FENCE	—F—	—F—

SYMBOLS

Sewer Manhole	○ SMH	MH	Manhole
Gully Trap	○ GT	SL	Surface Level
Stormwater Manhole	○ SWMH	IL	Invert Level
Fire Hydrant	○ FH	BM	Bench Mark
Valve	○ V	Ø	Diameter
Water Meter	○ WM	RCP	Reinforced Concrete Pipe
Electricity Box / Pillar	□ Elect Box	GI	Galvanised Iron
Electric Light Pole	○ ELP	Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)
Power Pole	○ PP		
Electricity Manhole	□ Elect MH		
Electricity Pit	□ Elect PH		
Traffic Signal Pit	□ Traffic PH		
Traffic Light	○ Traffic		
Telecommunications Manhole	□ Tel MH		
Telecommunications Pit	□ Tel PH		
Tree / Shrub	○		

ABBREVIATIONS

NOTES

This Plan has been prepared from a combination of field survey and existing records for the purpose of showing the physical features of the land to assist in designing future development, and should not be used for any other purpose.

See IS313805 for survey of external boundaries of Lot 96 on RP187418. All other boundaries shown hereon were not verified or marked at the time of survey, but were determined by existing title dimensions and occupation (where available), not be field measurement. As such, these dimensions could be out of date and incorrect by modern standards. This plan should not be used for building to boundary, or to prescribed set-backs, without further boundary survey.

Services shown hereon were located where possible by field survey. If not able to be so located, known services have been shown from the records of the relevant authorities or service providers where available and have been noted accordingly on this plan. All services shown from records only will need verification prior to, or during work on site.

Prior to any demolition, excavation or construction on site, the relevant authority should be contacted for:

- * Verification of all services plotted from records only, and
- * Possible location of any services altered since this survey was completed or any new services installed either on or adjacent to the site.

Before starting any demolition, excavation or construction on the site, the relevant person should make an independent and updated enquiry of "dial before you dig" and any relevant service providers to ascertain the existence of further services (if any) and the accurate location of those not able to have been surveyed at the time of preparing this plan.

* No responsibility can be accepted by Saunders Havill Group Pty Ltd, for any damage caused to any underground service or any loss or injury so suffered if enquiry and verification have not been completed in accordance with this note.

** 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.

QUALITY LEVELS

This plan shows Quality classifications of sub surface utility data as per AS4588-2013. The following classifications apply.

Quality Level D - (least accurate level and if used on its own has a high risk of damage) QL-D information is generally obtained from existing records provided by utilities as a result of a Dial Before You Dig enquiry being lodged. In many cases the asset depicted on the plan is in a schematic format only and intended only to indicate its presence.

Quality Level C - (low accuracy and a high risk of damage) Is described as a surface feature correlation or an interpretation of the approximate location and attributes of a subsurface utility asset using a combination of existing records and site survey of visible evidence – for example you can see the pit lids shown on the plan but the actual position of underground connection between pits is still assumed.

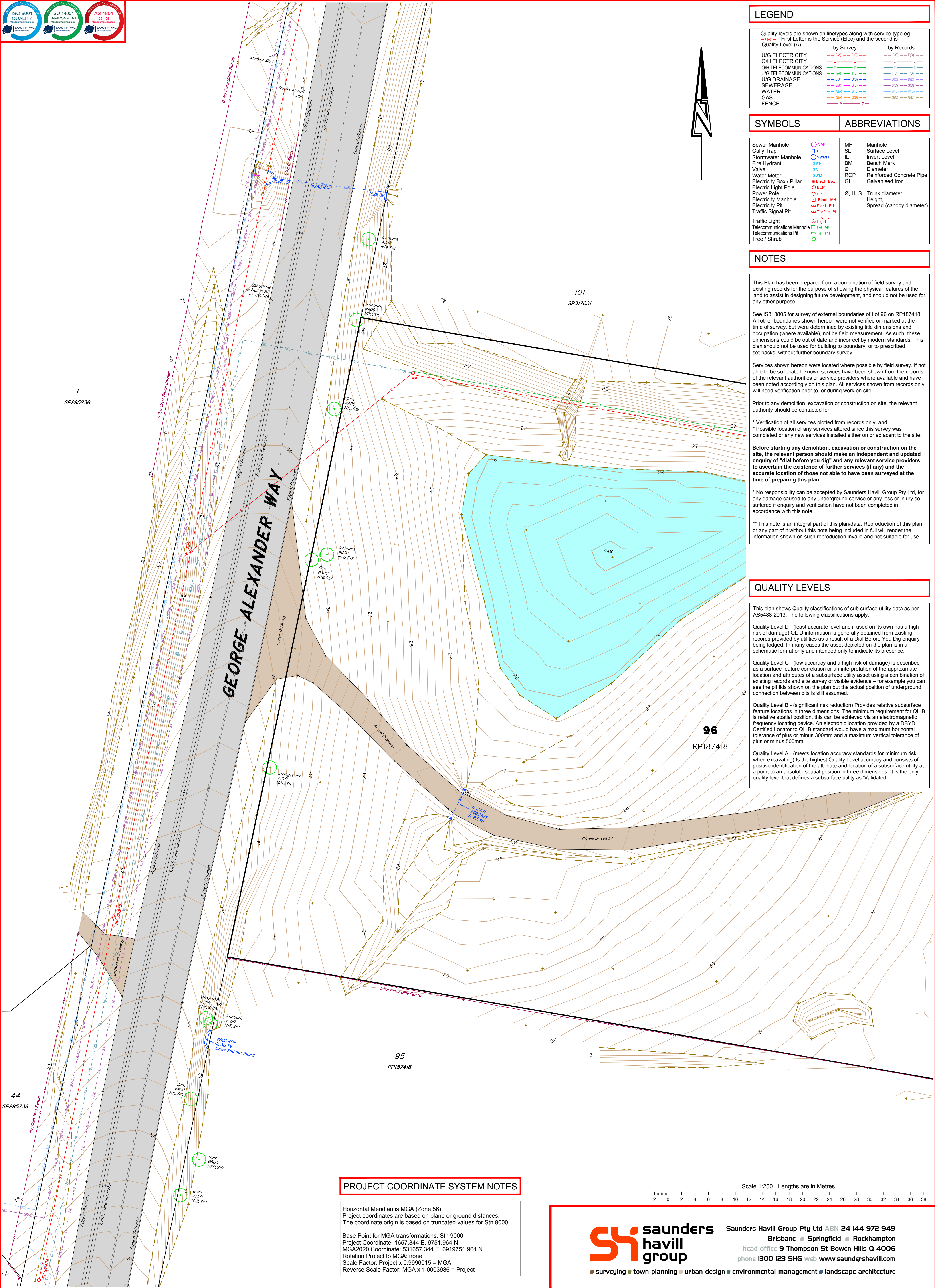
Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

No.	Drawn	Date	Description	Checked
A	MD	31/10/2022	Original Issue	JC

Plan of	DETAIL PLAN Sheet 1 of 4
Project	54 George Alexander Way, Coomera
Client	Coomera GA Pty Ltd ATF The Coomera GA Unit Trust

Surveyed BC	Date Oct 2022	Lot Description
Level Datum: AHD der.		Lot 96 on RP187418
Origin of Levels: PM139395 RL of Origin: 26.512		Locality: Coomera Local Government: Gold Coast City
Contour Interval: 0.2m		



LEGEND

Quality levels are shown on linetypes along with service type eg. — E — First Letter is the Service (Elec) and the second is Quality Level (A)			by Survey	by Records
U/G ELECTRICITY	— E —	— E —	— E —	— E —
O/H ELECTRICITY	— E —	— E —	— E —	— E —
O/H TELECOMMUNICATIONS	— T —	— T —	— T —	— T —
U/G TELECOMMUNICATIONS	— T —	— T —	— T —	— T —
U/G DRAINAGE	— D —	— D —	— D —	— D —
SEWERAGE	— S —	— S —	— S —	— S —
WATER	— W —	— W —	— W —	— W —
GAS	— G —	— G —	— G —	— G —
FENCE	— F —	— F —	— F —	— F —

SYMBOLS

Sewer Manhole	SMH	MH	Manhole
Gully Trap	GT	SL	Surface Level
Stormwater Manhole	SWMH	IL	Invert Level
Fire Hydrant	FH	BM	Bench Mark
Valve	V	Ø	Diameter
Water Meter	WM	RCP	Reinforced Concrete Pipe
Electricity Box / Pillar	Elect Box	GI	Galvanised Iron
Electric Light Pole	ELP	Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)
Power Pole	PP		
Electricity Manhole	Elect MH		
Electricity Pit	Elect Pit		
Traffic Signal Pit	Traffic Pit		
Traffic Light	Light		
Telecommunications Manhole	Tel MH		
Telecommunications Pit	Tel Pit		
Tree / Shrub			

NOTES

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See IS313805 for survey of external boundaries of Lot 96 on RP187418. All other boundaries shown hereon were not verified or marked at the time of survey, but were determined by existing title dimensions and occupation (where available), not be field measurement. As such, these dimensions could be out of date and incorrect by modern standards. This plan should not be used for building to boundary, or to prescribed set-backs, without further boundary survey.

Services shown hereon were located where possible by field survey, if not able to be so located, known services have been shown from the records of the relevant authorities or service providers where available and have been noted accordingly on this plan. All services shown from records only will need verification prior to, or during work on site.

Prior to any demolition, excavation or construction on site, the relevant authority should be contacted for:

- * Verification of all services plotted from records only, and
- * Possible location of any services altered since this survey was completed or any new services installed either on or adjacent to the site.

Before starting any demolition, excavation or construction on the site, the relevant person should make an independent and updated enquiry of "dial before you dig" and any relevant service providers to ascertain the existence of further services (if any) and the accurate location of those not able to have been surveyed at the time of preparing this plan.

* No responsibility can be accepted by Saunders Havill Group Pty Ltd, for any damage caused to any underground service or any loss or injury so suffered if enquiry and verification have not been completed in accordance with this note.

** 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.

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Quality Level D - (least accurate level and if used on its own has a high risk of damage) QL-D information is generally obtained from existing records provided by utilities as a result of a Dial Before You Dig enquiry being lodged. In many cases the asset depicted on the plan is in a schematic format only and intended only to indicate its presence.

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Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

PROJECT COORDINATE SYSTEM NOTES

Horizontal Meridian is MGA (Zone 56)
Project coordinates are based on plane or ground distances.
The coordinate origin is based on truncated values for Stn 9000

Base Point for MGA transformations: Stn 9000
Project Coordinate: 1657.344 E, 9751.964 N
MGA2020 Coordinate: 531657.344 E, 6919751.964 N
Rotation Project to MGA: none
Scale Factor: Project x 0.9996015 = MGA
Reverse Scale Factor: MGA x 1.0003986 = Project

Scale 1:250 - Lengths are in Metres.



**saunders
havill
group**

■ surveying ■ town planning ■ urban design ■ environmental management ■ landscape architecture

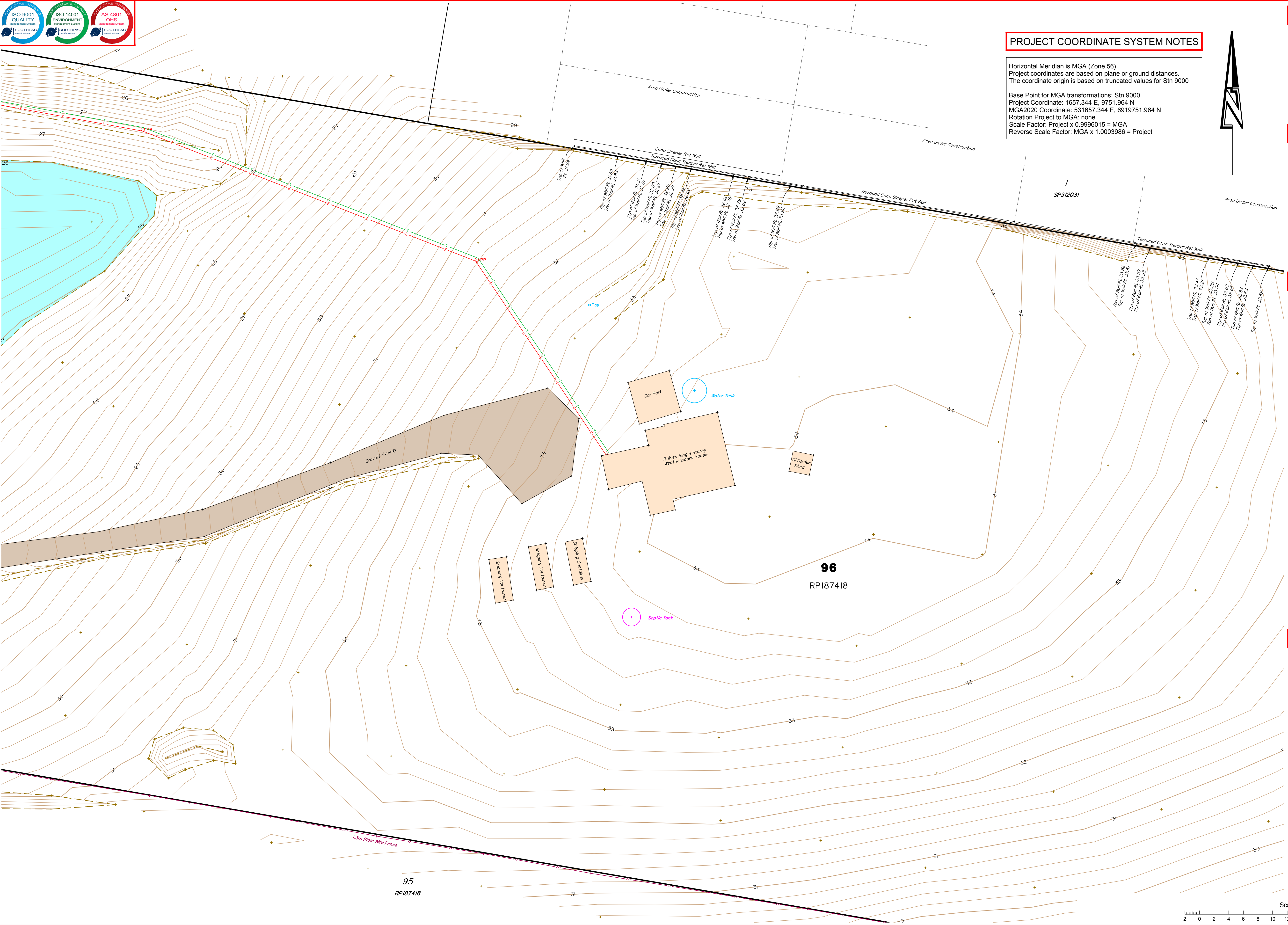
Saunders Havill Group Pty Ltd ABN 24 144 972 949

Brisbane ■ Springfield ■ Rockhampton

head office 9 Thompson St Bowen Hills Q 4006

phone 1300 123 SHG web www.saundershavill.com

Issues	No.	Drawn	Date	Description	Checked	Plan of	Surveyed		Date	Lot Description	Scale @A1 1: 250 @A3 1: 500
	A	MD	31/10/2022	Original Issue	JC		BC	Oct 2022			
							Level Datum: AHD der.		Lot 96 on RP187418		
							Origin of Levels: PM139395				
							RL of Origin: 26.512				
							Contour Interval: 0.2m				
									Locality: Coomera		
									Local Government: Gold Coast City		
						DETAIL PLAN					surveying
							Sheet 2 of 4				
						Project	54 George Alexander Way, Coomera				
						Client	Coomera GA Pty Ltd ATF The Coomera GA Unit Trust				Dwg No. 11241 S 03 DT A



PROJECT COORDINATE SYSTEM NOTES

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Scale Factor: Project x 0.9996015 = MGA
Reverse Scale Factor: MGA x 1.0003986 = Project



LEGEND

Quality levels are shown on linetypes along with service type eg. -E(A) - First Letter is the Service (Elec) and the second is Quality Level (A)		
	by Survey	by Records
U/G ELECTRICITY	-E(A) -E(B) -E(C) -E(D) -E	-E -E -E -E -E
O/H ELECTRICITY	-E -E -E -E -E	-E -E -E -E -E
O/H TELECOMMUNICATIONS	-T -T -T -T -T	-T -T -T -T -T
U/G TELECOMMUNICATIONS	-TA -TB -TC -TD -TE	-T -T -T -T -T
U/G DRAINAGE	-DA -DB -DC -DD -DE	-D -D -D -D -D
SEWERAGE	-SA -SB -SC -SD -SE	-S -S -S -S -S
WATER	-WA -WB -WC -WD -WE	-W -W -W -W -W
GAS	-GA -GB -GC -GD -GE	-G -G -G -G -G
FENCE	-F -F -F -F -F	-F -F -F -F -F

SYMBOLS

Sewer Manhole	SMH	MH	Manhole
Gully Trap	GT	SL	Surface Level
Stormwater Manhole	SMWH	IL	Invert Level
Fire Hydrant	FH	BM	Bench Mark
Valve	V	Ø	Diameter
Water Meter	WM	RCP	Reinforced Concrete Pipe
Electricity Box / Pillar	EB	GI	Galvanised Iron
Electric Light Pole	ELP		
Power Pole	PP	Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)
Electricity Manhole	EMH		
Electricity Pit	EHP		
Traffic Signal Pit	TSP		
Traffic Light	TL		
Telecommunications Manhole	TMH		
Telecommunications Pit	TP		
Tree / Shrub	T		

ABBREVIATIONS

NOTES

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See IS313805 for survey of external boundaries of Lot 96 on RP187418. All other boundaries shown hereon were not verified or marked at the time of survey, but were determined by existing title dimensions and occupation (where available), not by field measurement. As such, these dimensions could be out of date and incorrect by modern standards. This plan should not be used for building to boundary, or to prescribed set-backs, without further boundary survey.

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Before starting any demolition, excavation or construction on the site, the relevant person should make an independent and updated enquiry of "dial before you dig" and any relevant service providers to ascertain the existence of further services (if any) and the accurate location of those not able to have been surveyed at the time of preparing this plan.

* No responsibility can be accepted by Saunders Havill Group Pty Ltd, for any damage caused to any underground service or any loss or injury so suffered if enquiry and verification have not been completed in accordance with this note.

** 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.

QUALITY LEVELS

This plan shows Quality classifications of sub surface utility data as per AS488-2013. The following classifications apply.

Quality Level D - (least accurate level and if used on its own has a high risk of damage) QL-D information is generally obtained from existing records provided by utilities as a result of a Dial Before You Dig enquiry being lodged. In many cases the asset depicted on the plan is in a schematic format only and intended only to indicate its presence.

Quality Level C - (low accuracy and a high risk of damage) Is described as a surface feature correlation or an interpretation of the approximate location and attributes of a subsurface utility asset using a combination of existing records and site survey of visible evidence - for example you can see the pit lids shown on the plan but the actual position of underground connection between pits is still assumed.

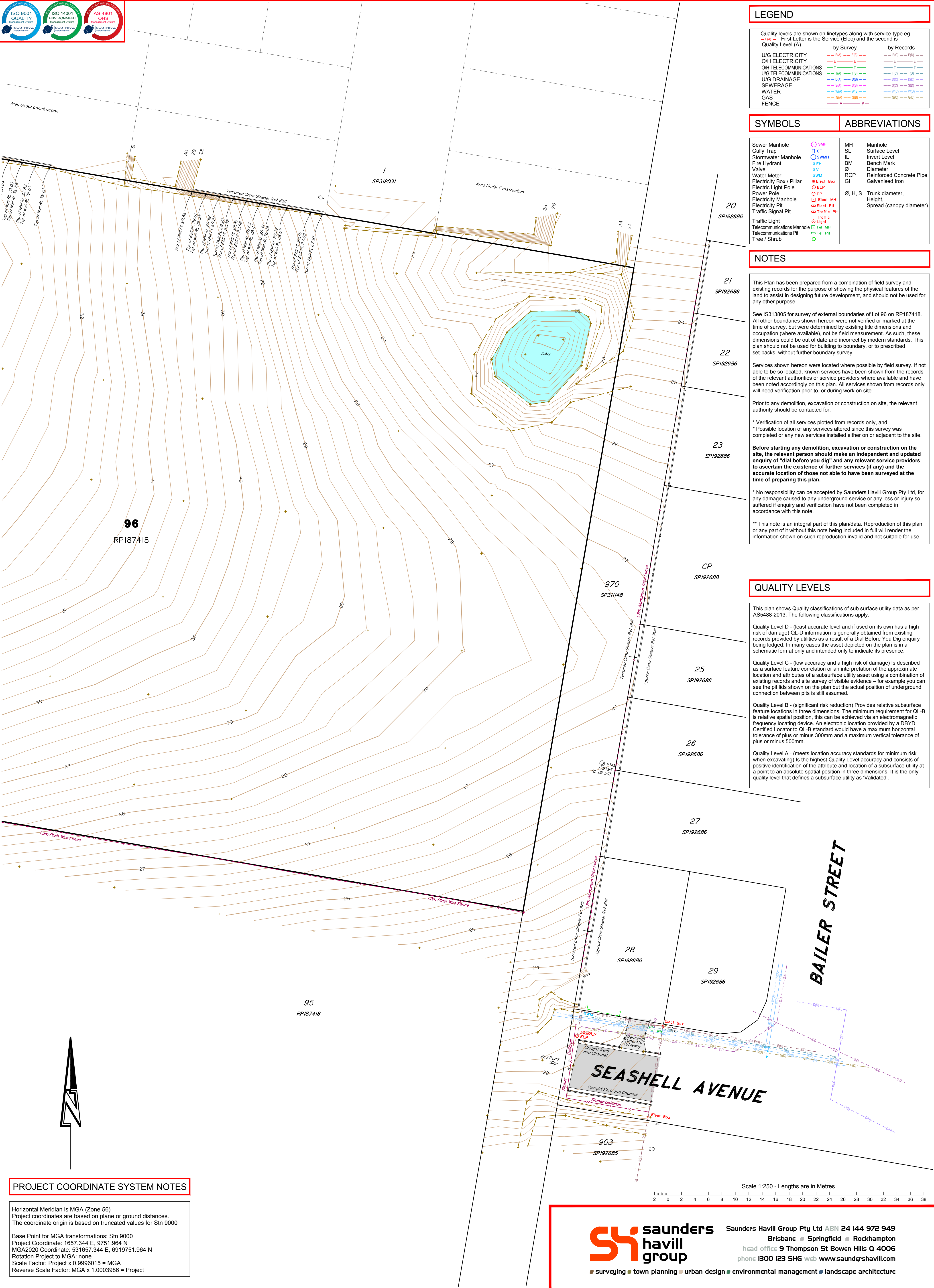
Quality Level B - (significant risk reduction) Provides relative subsurface feature locations in three dimensions. The minimum requirement for QL-B is relative spatial position, this can be achieved via an electromagnetic frequency locating device. An electronic location provided by a DBYD Certified Locator to QL-B standard would have a maximum horizontal tolerance of plus or minus 300mm and a maximum vertical tolerance of plus or minus 500mm.

Quality Level A - (meets location accuracy standards for minimum risk when excavating) Is the highest Quality Level accuracy and consists of positive identification of the attribute and location of a subsurface utility at a point to an absolute spatial position in three dimensions. It is the only quality level that defines a subsurface utility as 'Validated'.

No.	Drawn	Date	Description	Checked
A	MD	31/10/2022	Original Issue	JC

Plan of	DETAIL PLAN Sheet 3 of 4
Project	54 George Alexander Way, Coomera
Client	Coomera GA Pty Ltd ATF The Coomera GA Unit Trust

Surveyed BC	Date Oct 2022	Lot Description Lot 96 on RP187418
Level Datum: AHD der.		Locality: Coomera
Origin of Levels: PM139395 RL of Origin: 26.512		Local Government: Gold Coast City
Contour Interval: 0.2m		



LEGEND

Quality levels are shown on linetypes along with service type eg. - 1.4 - First Letter is the Service (Elec) and the second is Quality Level (A)		
	by Survey	by Records
U/G ELECTRICITY	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
O/H ELECTRICITY	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
O/H TELECOMMUNICATIONS	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
U/G TELECOMMUNICATIONS	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
U/G DRAINAGE	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
SEWERAGE	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
WATER	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
GAS	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---
FENCE	--- 1.4 --- 1.4 ---	--- 1.4 --- 1.4 ---

SYMBOLS

Sewer Manhole	○ SMH	MH	Manhole
Gully Trap	□ GT	SL	Surface Level
Stormwater Manhole	○ SWMH	IL	Invert Level
Fire Hydrant	■ FH	BM	Bench Mark
Valve	■ V	Ø	Diameter
Water Meter	■ WM	RCP	Reinforced Concrete Pipe
Electricity Box / Pillar	■ Elect Box	GI	Galvanised Iron
Electric Light Pole	○ ELP	Ø, H, S	Trunk diameter, Height, Spread (canopy diameter)
Power Pole	○ PP		
Electricity Manhole	□ Elect MH		
Electricity Pit	□ Elect PH		
Traffic Signal Pit	○ Traffic PH		
Traffic Light	○ Light		
Telecommunications Manhole	□ Tel MH		
Telecommunications Pit	□ Tel PH		
Tree / Shrub	○		

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PROJECT COORDINATE SYSTEM NOTES

Horizontal Meridian is MGA (Zone 56)
Project coordinates are based on plane or ground distances.
The coordinate origin is based on truncated values for Stn 9000

Base Point for MGA transformations: Stn 9000
Project Coordinate: 1657.344 E, 9751.964 N
MGA2020 Coordinate: 531657.344 E, 6919751.964 N
Rotation Project to MGA: none
Scale Factor: Project x 0.9996015 = MGA
Reverse Scale Factor: MGA x 1.0003986 = Project

Issues	No.	Drawn	Date	Description	Checked	Plan of	Surveyed	Date	Lot Description	surveying
	A	MD	31/10/2022	Original Issue	JC		BC	Oct 2022		
DETAIL PLAN							Level Datum: AHD der.		Scale @A1 1: 250	
Sheet 4 of 4							Origin of Levels: PM139395		@A3 1: 500	
Project 54 George Alexander Way, Coomera							RL of Origin: 26.512		Locality: Coomera	
Client Coomera GA Pty Ltd ATF The Coomera GA Unit Trust							Contour Interval: 0.2m		Local Government: Gold Coast City	
									Dwg No. 11241 S 03 DT A	