



Koala Management Plan

SDAP v2.6 State Code 25 (Qld)

126-130 Park Ridge Road, Park Ridge, Queensland 4125

Prepared for Chiu Chuan Wang
18 October 2024

12014

Document Control

Document: State Code 25 (Qld) Koala Management Plan – 126-130 Park Ridge Road, Park Ridge, prepared by Saunders Havill Group for Chiu Chuan Wang.

Document Issue

Issue	Date	Prepared by	Checked by
A	09.20224	RM	JG

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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

DES	Department of Environment and Science (Qld)
DSDMIP	Department of State Development, Manufacturing, Infrastructure and Planning (Qld)
LCC	Logan City Council

General terms

DBH	Diameter at Breast Height
ha	hectares
km	kilometres
KMP	Koala Management Plan
mm	millimetres
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 Chiu Chuan Wang 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* (v2.6), implemented by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP). Specifically, this KMP is required to demonstrate compliance with performance outcome 4 (PO4) within the State Code 25, where the KMP must include:

1. *activities that may cause injury or death of koalas from construction activities; and*
2. *acceptable measures to avoid and mitigate injury or death of koalas from construction activities.*

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.

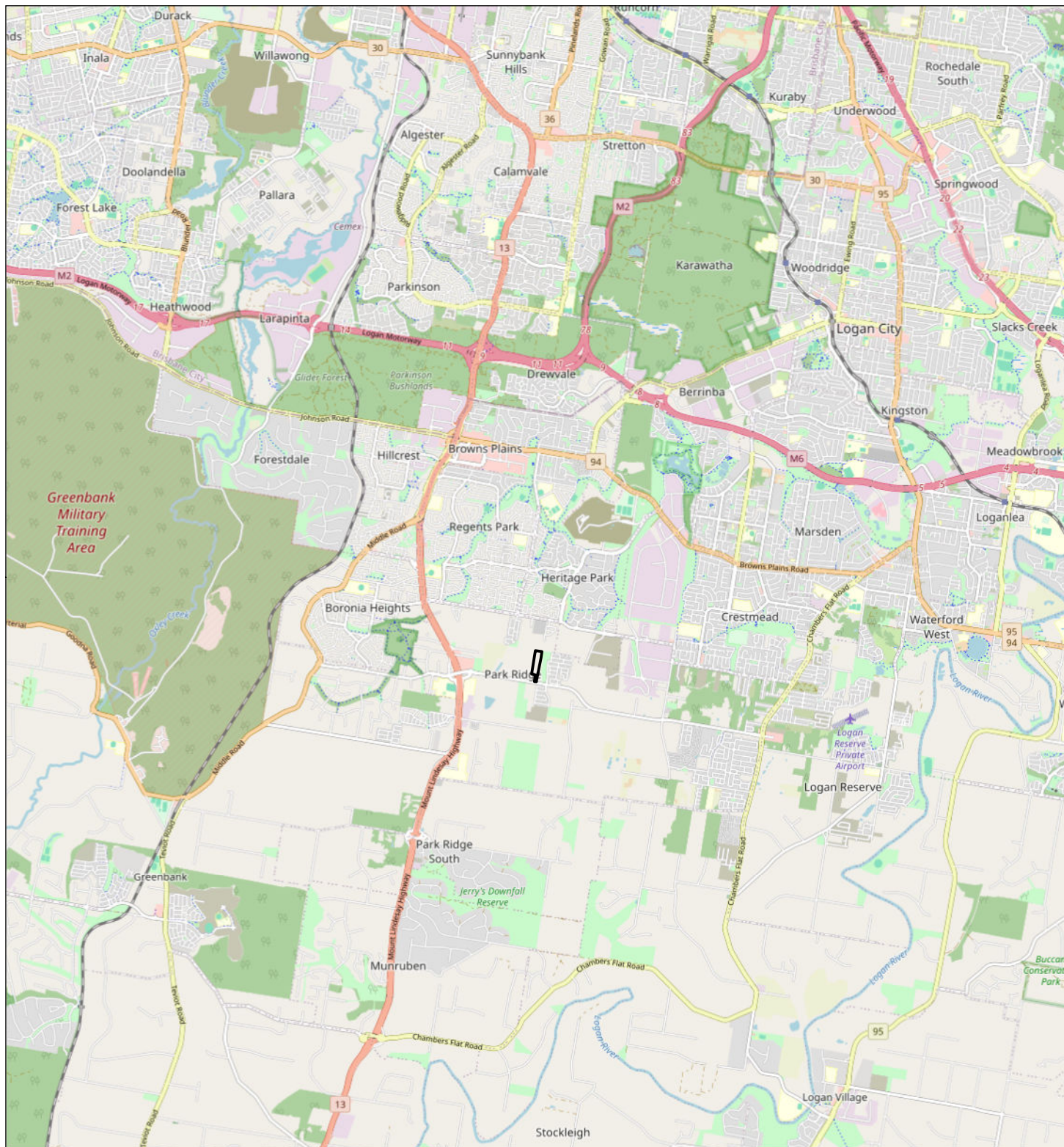
2. Project description

The subject site is located at 126-130 Park Ridge Road, Park Ridge (described as Lot 4 on RP868515). Contextually, the site is located within the LCC Local Government Area (LGA), is 5.659 ha and zoned as mixed use for approximately 80% of the site and Environmental management and conservation for the land adjoining the northern boundary and waterway corridor. The site is situated approximately 9.7 kilometres (km) to the north-west of Logan Village within the suburb of Park Ridge (refer Error! Reference source not found.). The site is bound by Park Ridge Road to the south, with recently developed residential estates to the east, rural residential allotments to the west and a mapped waterway to the north.

The wider landscape is shifting from rural residential to low and medium density residential developments with significant fauna impediments of Mount Lindesay Highway approximately 1.2km to the west and the Logan Motorway further afield 5km to the north. While the site appears as a highly vegetated lot in aerial mapping, ground truthing through ecological surveys have identified high levels of modification and weed infestation in the southern portion of the site. Further, strategic intent for the locality from a Local Government and State Government intent is for urban purposes with inclusion in the Urban Footprint of South-East Queensland Regional Plan and additionally through Council's zoning intent of mixed use mapped over 80% of the site. The intent for the locality to be redeveloped for residential and mixed use is evident in the current aerial mapping (refer Error! Reference source not found.).

The proposed development is seeking to reconfigure the one (1) lot to provide a total of 73 residential allotments, environmental conservation area, stormwater detention basin and internal road. Refer to **Plan 1** for the proposed development layout. The proposed development will provide an area designated for residential development as per Planning intent, with the subject site zoned as Mixed Use and Environmental and Conservation under Logan City Council Planning Scheme.

Figure 1: Site context



Legend



Site DCDB

Figure 1
Site Context

File ref. 12014 E Figure 1 KMP Site Context A
Date 22/10/2024
Project 129-130 Park Ridge Road, Park Ridge

0 1 2 3 4 km

Scale (A4): 1:100,000 [GDA 2020 MGA Z56]



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Figure 2: Site aerial



Legend

- Site DCDB
- Qld DCDB

Figure 2

Site Aerial

File ref. 12014 E Figure 2 KMP Site Aerial A
Date 22/10/2024
Project 129-130 Park Ridge Road, Park Ridge

0 100 200 m
 Scale (A4): 1:5,000 [GDA 2020 MGA Z56]



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Plan 1: Development Assessment

1.1 Development Assessment (Context)



Notes:
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Legend

- Site DCDB
- Qld DCDB

Layout Detail

- LCC Biodiversity Corridor
- Proposed Lot
- Proposed road
- Contours
- Works extent

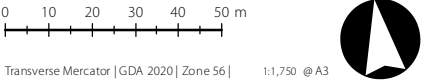
Koala Habitat Areas

- Mapped Koala Habitat
- KHA impact area [3.45 ha]
- KHA exemption area [0.30 ha]

GPS Tree Plot

- Non-juvenile Koala habitat tree to retain [154]
- Native tree to retain [5]
- Non-juvenile Koala habitat retention subject to arborist assessment [17]
- Dead/stag tree retention subject to arborist assessment [1]
- Non-juvenile Koala habitat tree retention subject to detailed stormwater/basin design [156]
- Non-juvenile Koala habitat tree to remove outside KHA [400]
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- Weed tree to remove outside KHA [91]
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- Weed tree to remove within KHA [6]

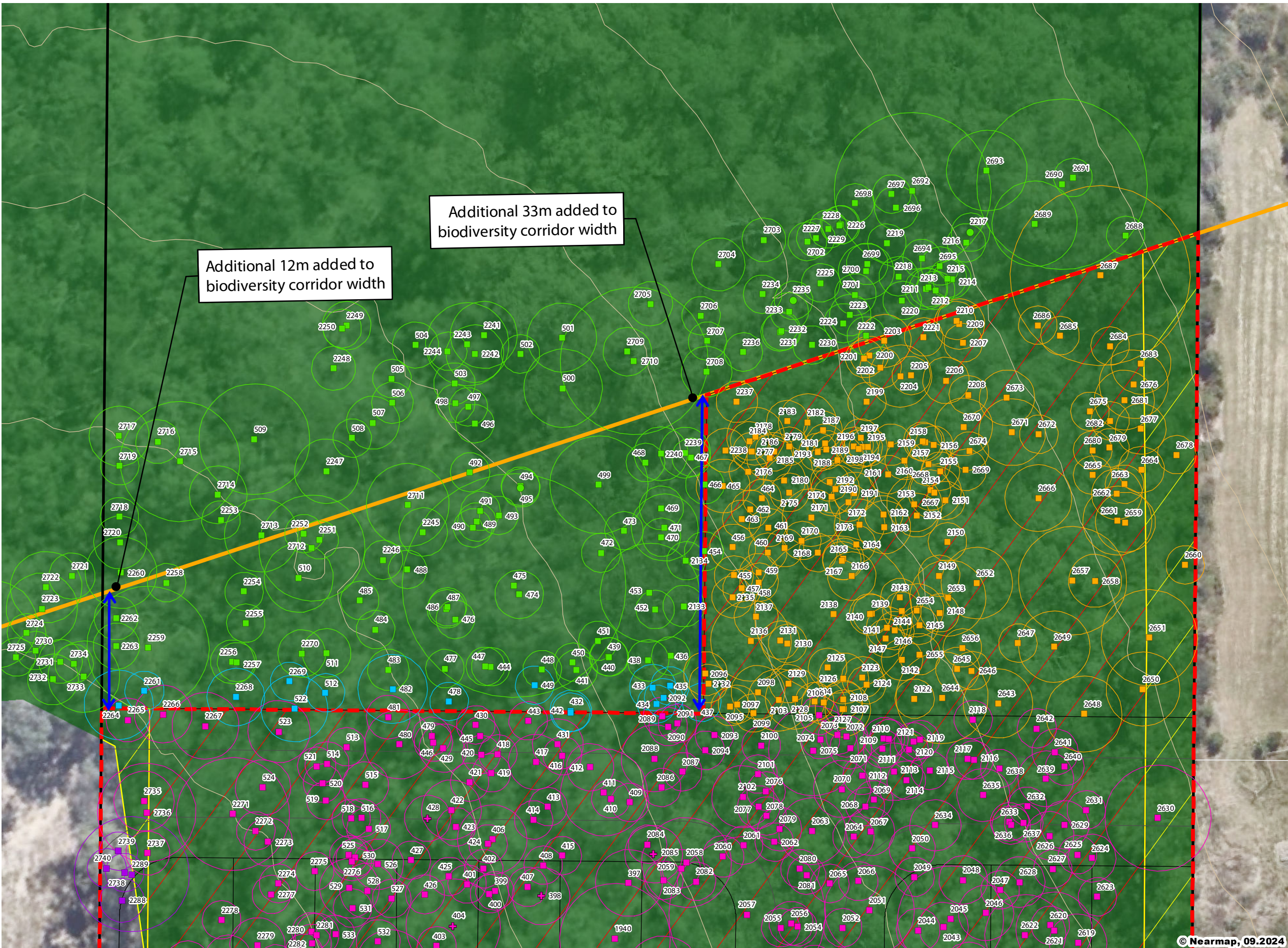
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A	22/10/2024	Preliminary	TC	RM



Address / RPD:129-130 Park Ridge Road, Park Ridge

22/10/2024 | 12014 E 01 1 Development Assessment A

1.2 Development Assessment

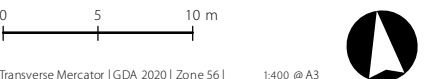


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An aerial photograph of a green field, possibly a golf course, overlaid with a grid of numbered points and overlapping purple circles. The points are arranged in a regular grid pattern, with numbers ranging from 1689 to 2588. The purple circles are centered on each point, with varying diameters. The field is bordered by a red dashed line on the left and right, and a yellow dashed line on the top and bottom. The background is a grayscale aerial image of the field and surrounding terrain. In the bottom right corner, there is a copyright notice: "© Nearmap, 09.2024".

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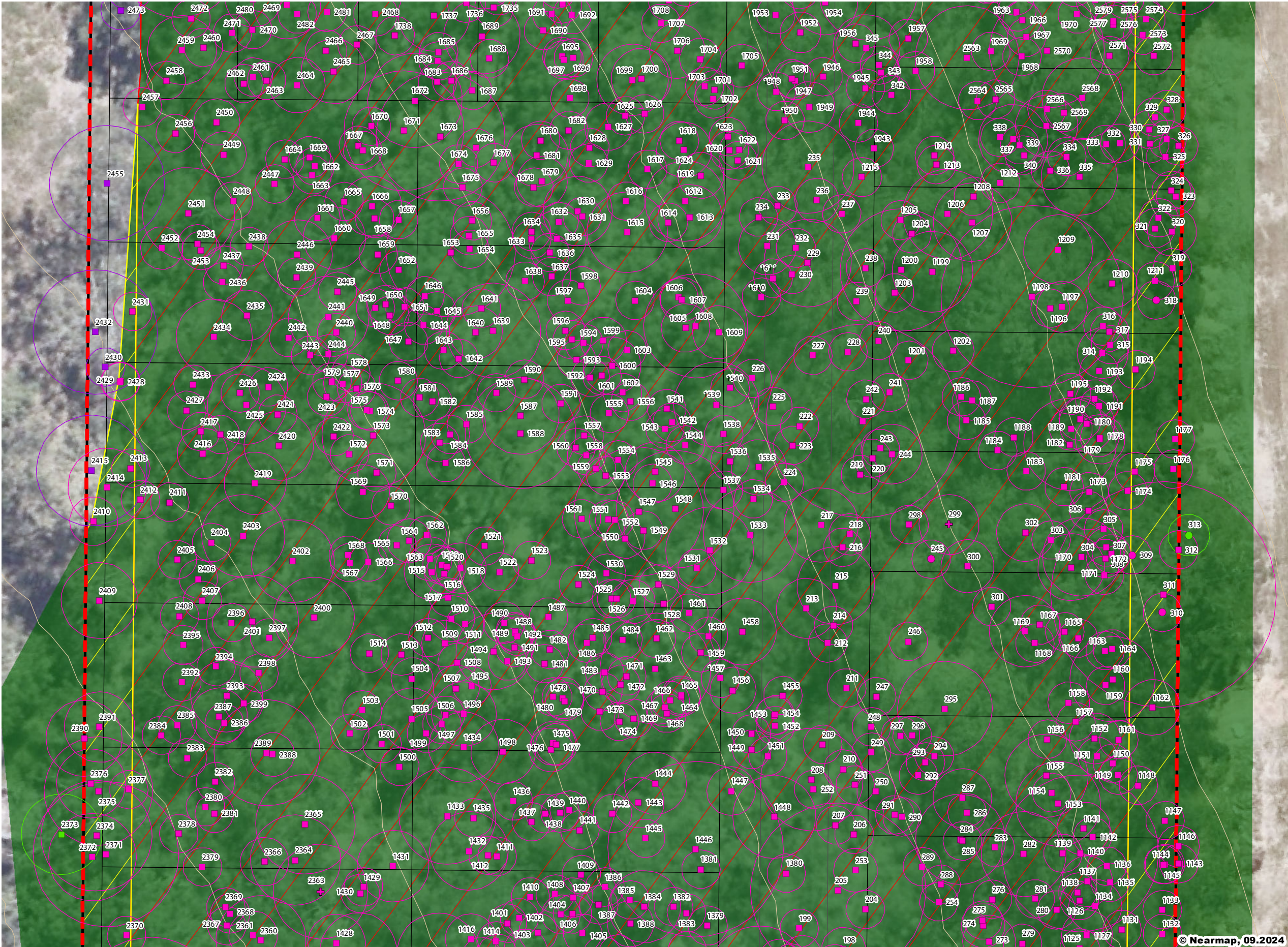
A scale bar showing 0, 5, and 10 m, and a north arrow pointing upwards.

Transverse Mercator | GDA 2020 | Zone 56 | 1:400 @ A3

Address / RPD4RP868515

22/10/2024 | 12014 E 01 2 Development Assessment A

1.4 Development Assessment

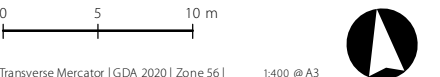


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This map displays a spatial analysis of a green field, likely a golf course or park, overlaid with a grid of numbered points and overlapping circles. The points are represented by pink squares with numbers ranging from 1000 to 2300. The circles are purple and overlap significantly, suggesting a network or proximity analysis. The map includes a coordinate grid, a network of brown lines, and a red dashed border. A copyright notice '© Nearmap, 09.2024' is visible in the bottom right corner.

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1.7 Development Assessment

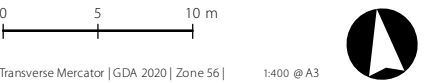


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3. Summary of Ecological values

Ecologists from SHG assessed the site on 23, 24 and 26 April 2024, with a summary of weather conditions detailed in **Table 1**. The entire site was walked to ensure all vegetation communities and species were recorded. Particular attention was paid to any threatened flora and habitat for any threatened fauna species that were listed as potentially occurring within the vicinity of the application area, and specific micro assemblage which may support these threatened species. Refer to Error! Reference source not found. for field survey and communities.

Table 1: Weather Conditions

Weather Conditions	23 April 2022	24 April	26 April
Maximum Temperature (°C)	25.7°C	27.1°C	23.3°C
Minimum Temperature (°C)	16.0°C	13.7°C	15.9°C
Rainfall (mm)	4.4 mm	0.6 mm	0 mm
Conditions	Overcast with showers	Overcast	Overcast

Information extracted from Bureau of Meteorology 2024, Greenbank (Defence) Station 140009

Field surveys 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. The subject site is considered to have limited connectivity, within vegetation retained within waterway and biodiversity corridors through LCC LGA. The presence of rural residential properties and the greater landscape shifting to higher density developments has severely reduced koala habitat in the area. Further the development site is bound to the east and west by residential subdivision approval. The development proposes to retain areas of Koala Habitat within an ecological corridor to the north, providing habitat and connectivity throughout the landscape via areas mapped with the Biodiversity Corridor under LCC Planning Scheme. A waterway corridor is located to the north of the site on Lot 6 on SP225826. The dedication of land for environmental purposes to the north for a width of 12m along the western boundary, and 33m along the eastern boundary and will provide for an extensive and consolidated ecological corridor and habitat for Koala into the future with a thickness of dedicated to environmental purposes into the future.

Whilst the remaining areas of mapped Koala Habitat contain suitable Koala food and shelter trees, adequate consideration needs to be given to the zoned intent of the land for low density residential purposes to cater for the growing southeast Queensland population. Given the retention of the Koala Habitat within the Biodiversity Corridor, the development meets the planning intent of Park Ridge within Logan Planning Scheme.

The site itself is a large lot containing vacant bushland which contains characteristics typical of the modification and urbanisation of the site and surrounding region. The majority of the site is mapped as Category B (remnant) vegetation with the southern portion containing an area of Category X (non-remnant) vegetation. The non-remnant area is highly modified with vegetation dominated by introduced and invasive

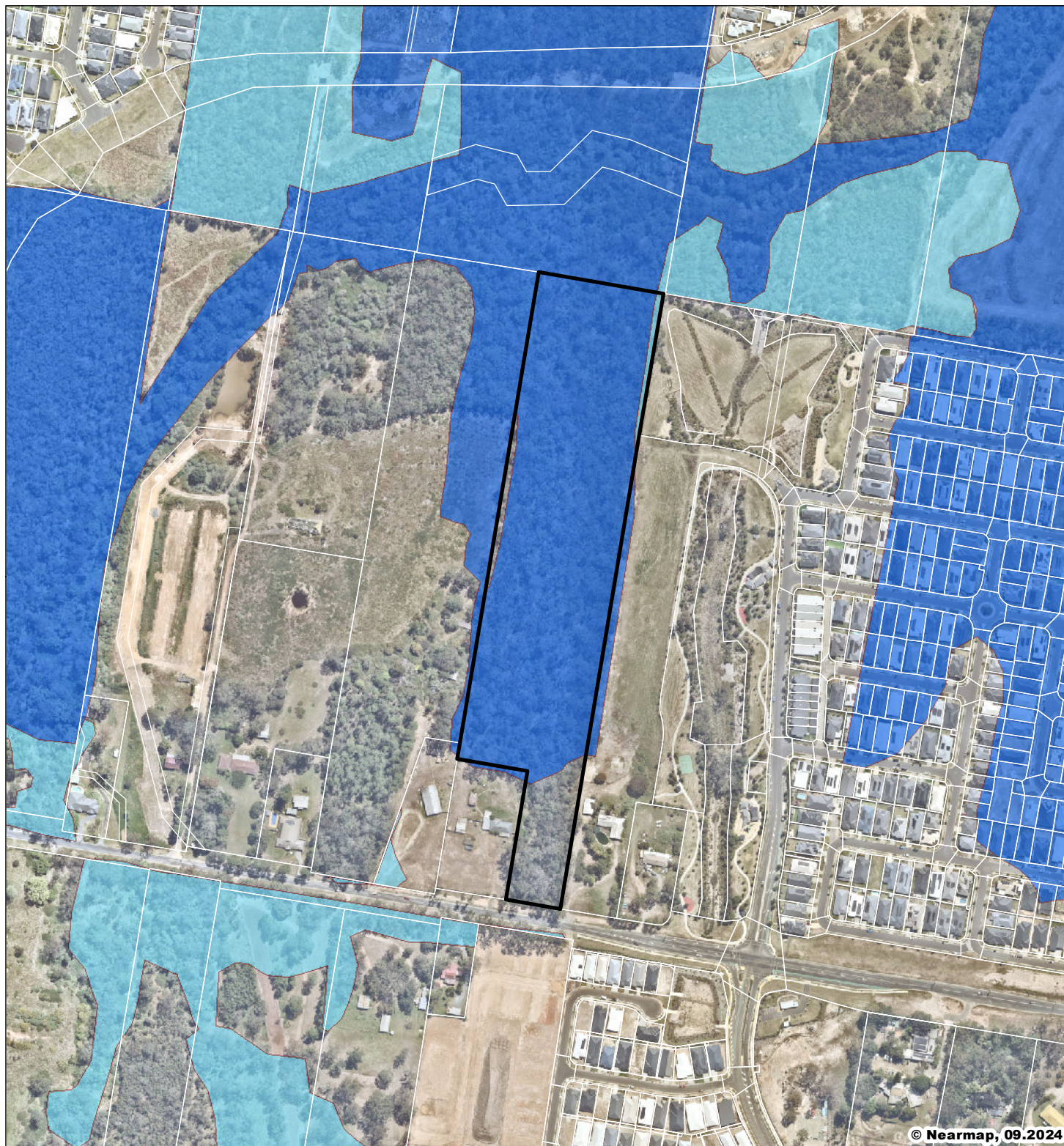
species. Eucalypt species are present however are largely immature. Invasive species throughout the area include dense patches of *Syagrus romanzoffiana* (Cocos Palm), *Lantana camara* (Lantana) and *Cascabela thevetia* (Yellow Oleander). Comparatively the non-remnant vegetation to the north contains a low weed composition with exception to the boundaries where edge effects are prominent. The State mapped Regulated Vegetation Management Map can be seen in **Figure 3**.

Canopy vegetation within the remnant vegetation is reflective of least concern RE 12.9-10.4 which is mapped across the majority of the ecosystem however the indicator species *Eucalyptus racemosa* (Scribbly Gum) is largely absent, likely due to historical logging practices. The remaining vegetation however reflects this ecosystem, consisting of *Eucalyptus siderophloia* (Grey Ironbark) and *Corymbia intermedia* (Pink Bloodwood) with *Lophostemon suaveolens* (Swamp Box), *Eucalyptus seeana* (Narrow-leaved Red Gum), *Angophora leiocarpa* (Smooth Bark Apple) and *Corymbia citriodora* (Spotted Gum). The far north of the remnant vegetation is mapped as containing endangered RE 12.9-10.12 which was confirmed present on-ground. Canopy vegetation within this area containing a mix of *C. intermedia* (Pink Bloodwood), *A. leiocarpa* (Smooth Bark Apple) and *E. seeana* (Narrow-leaved Red Gum).

A scat meander was completed within the 'remnant' vegetation as well as surveys for activity on every tree during the GPS Tree Plot. The scat meandered recorded scats which triggered a SAT Survey. The SAT Survey returned a low usage. Given the low usage and the highly modified environment, it is assumed that koalas using this vegetation are likely transient visitors. However, the retention of Koala Habitat within the ecological corridor in the north of the site will continue to provide habitat and movement opportunities for fauna (Refer to **Figure 4** for KHA mapping).

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 Planning Scheme Policy.

Figure 3: Regulated Vegetation Management Map



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
- Water
- Area not categorised

Figure 3

Regulated Vegetation Management Map

File ref. 12014 E Figure 3 KMP RVM A
Date 22/10/2024
Project 129-130 Park Ridge Road, Park Ridge

0 100 200 m
 Scale (A4): 1:5,000 [GDA 2020 MGA Z56]

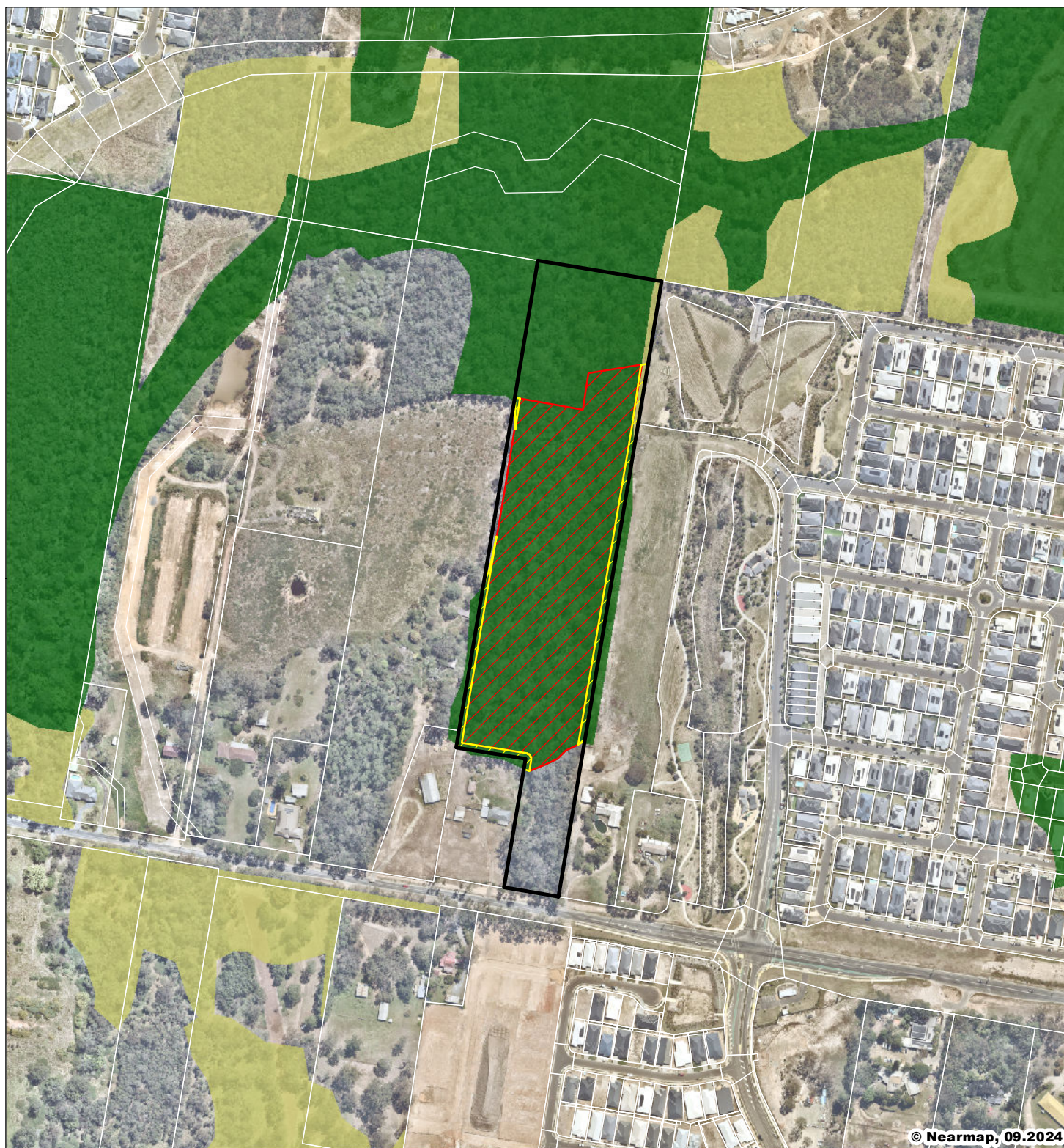


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Figure 4: Koala Habitat Provisions



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
- KHA impact area [3.45 ha]
- KHA exemption area [0.30 ha]

Figure 4

Koala Priority Areas and
Koala Habitat Areas

File ref. 12014 E Figure 4 KMP Koala 2019 A
Date 22/10/2024
Project 129-130 Park Ridge Road, Park Ridge

0 100 200 m

Scale (A4): 1:5,000 [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

- Loss of habitat.
- Loss of 2,007 non-juvenile koala habitat trees.
- Potential for injury or mortality caused by vegetation clearing.
- Potential for injury or mortality caused by vehicle use during construction.
- Species displacement into surrounding habitat areas.

4.1. Risk Assessment

Each of the identified potential impacts were analysed 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			
Loss of habitat	Almost certain (A)	Minor (2)	High
Loss of 2,007 non-juvenile koala habitat trees in central to southern portions of the site.	Almost certain (A)	Minor (2)	High
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
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.
- 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 stage 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

LCC 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 stages 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		Chiu Chuan Wang
Environmental Coordinator	TBA	Saunders Havill Group
LCC Contact	TBA	Logan City Council
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 each stage of 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 stage. 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 (whichever is greatest) 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 works 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 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 for each new stage of clearing and construction 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.

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
DURING CONSTRUCTION MANAGEMENT ACTIONS				
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	Management Action 9 for 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 LCC.
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</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 construction and clearing.

Environmental Management Commitment	Responsibility	Timing	Funding	Monitoring / Frequency
<i>Queensland Code of Practice for the Welfare of Animals affected by Land Clearing).</i>				