

Variation Request for Proposed MCU and RoL at
115 & 117 School Road and 242-248 & 250-258
Loganview Road North, Logan Reserve

Ecological Assessment Report

PREPARED FOR BAYCROWN PTY LTD



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1 Introduction

1.1 Proposed Development

28 South Environmental Pty Ltd (**28 South**) have been engaged by Baycrown Pty Ltd (the **Applicant**), to advise on ecological and environmental planning matters regarding the following:

- A Preliminary Approval for a Material Change of Use (**MCU**) for Dwelling Houses, that includes a request (Variation Request) to vary the effect of the *Logan Planning Scheme 2015*; and
- A Development Permit (**DP**) for Reconfiguring a Lot (**RoL**) to create 80 Lots, 1 Balance Lot and New Road.

An existing application has been submitted for RoL for the northern and eastern sections of Lots 25-26 on RP97736 and adjoining western Lots 40-41 on RP229101. We understand that the current application is for the proposed development within the balance of Lots 25-26 on RP97736, i.e. Proposed Lot 2003 (referred to herein as the '**Site**').

The Site is located within Logan City Council (**LCC**) Local Government Area (**LGA**). The locality and context of the Site are illustrated in **Attachment 1** and **Attachment 2** respectively. The Site is located within the Emerging Community zone under the LCC Planning Scheme (**Attachment 3**).

The Site is within the southern portion of Lots 25-26 on RP97736. These properties are immediately bound by other similar rural residential properties, a number of which have been subject to Development Applications and Development Approvals as discussed further below. The surrounding properties are mostly devoid of intact vegetation, largely supporting maintained lawns, nursery/ market gardens and paddocks with an array of dams. Large houses occur through the area, particularly along Logan Reserve Road which are surrounded by widely scattered trees/ landscaping. The fence lines support windrows of more mature vegetation comprised of a variety of exotic (namely slash pine) and native trees. The properties within the Site itself are typical of larger lifestyle blocks supported throughout the locality.

1.2 Purpose of this Report

The purpose of this Ecological Assessment Report (**EAR**) is to provide a high-level desktop assessment of ecological impacts and environmental planning pathways associated with the proposed development, including how any negative impacts can be avoided, mitigated or offset. To this end, this EAR assesses the proposed development against relevant ecological and environmental planning legislation, policies and instruments at the Commonwealth, State and Local levels. The EAR achieves this through:


- a) desktop assessments of;
 - a. determination of potential impacts of the proposed development on ecological features within and adjoining the Site;
 - b. assessment against the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*;
 - c. assessment against the relevant provisions of the *Planning Regulation 2017 (Planning Reg)*;
 - d. assessment against relevant ecological components of the LCC Planning Scheme 2015 (**Planning Scheme**); and
- b) recommendations for measures to avoid, minimise and mitigate potential impacts of the proposed development on environmental values within the Site on context with relevant environmental planning frameworks.

This EAR considers historical clearing events and previous uses (i.e. rural residential/ rural) within the Site and the immediate locality and takes into consideration potential impacts on Matters of National Environmental Significance (**MNES**), Matters of State Environmental Significance (**MSES**) and Matters of Local Environmental Significance (**MLES**) as well as relevant environmental policies, guidelines and codes.


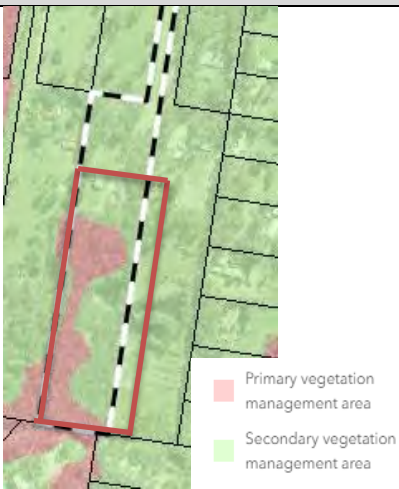
2 Statutory Environmental Matters for Consideration

Ecological values and ecologically important areas for the proposed development have been defined with reference to Federal, State and Local Government environmental legislation. A summary of relevant statutory considerations is provided in **Table 1**.

Table 1 – Relevant Environment Legislation

Matter of Interest	Relevant Legislative Instrument or Policy	Referral Agency if Triggered	Relevant Database Searches/Attachment	Inset	Further Assessment
Relevant Federal Environmental Legislation					
Matters of National Environmental Significance	EPBC Act	Department of Agriculture, Water and Environment (DAWE)	Protected Matters Search Tool (PMST) (Attachment 4) Wildlife Online (Attachment 5)	Nil	A determination of whether a Significant Impact will arise is made with reference to the MNES Significant Impact Guidelines 1.1 (DoE 2013). Refer to Section 6.1
Relevant State Environmental Legislation					
Clearing Native Vegetation	Planning Reg, Schedule 10, Part 3, Division 4, Table 3.	SARA and the Department of Resources (DoR)	Vegetation Management Report (Attachment 6)		<p>The Site supports mapped and identified Category B (remnant) Regulated Vegetation, mapped as 'Least Concern' Regional Ecosystem (RE) 12.9-10.4.</p> <p>We note this patch of regulated vegetation is also mapped as:</p> <ul style="list-style-type: none"> MSES regulated vegetation (essential habitat); MSES wildlife habitat (SEQ koala habitat-core);

Matter of Interest	Relevant Legislative Instrument or Policy	Referral Agency Triggered if	Relevant Database Searches/Attachment	Inset	Further Assessment
					<ul style="list-style-type: none"> • MSES wildlife habitat (special least concern animal); and • MSES Wildlife habitat (endangered or vulnerable). <p>The proposed development is exempt from assessment against the State Development Assessment Provisions (SDAP) State Code 16 (Native vegetation clearing) as it benefits from the exemption for clearing for urban purposes in an urban area, as set out under Schedule 21, Part 2, Section (g)(iii) of the Planning Reg.</p> <p>As such, no further assessment is required.</p>

Matter of Interest	Relevant Legislative Instrument or Policy	Referral Agency if Triggered	Relevant Database Searches/Attachment	Inset	Further Assessment
Koala Habitat Areas	Planning Regulation 2017 (Schedule 10, Part 10, Division 2, Table 1)	Department of Environment and Sciences (DES)	Vegetation Management Report, (Attachment 6)		<p>The Site is not mapped within the Priority Koala Area (PKA). The Site contains Core Koala Habitat Area (CKHA) as shown in inset but no Locally Refined Koala Habitat Area (LRKHA) mapping.</p> <p>Assessment against SDAP 25 has been undertaken as part of this application. Refer to Section 6.2.1 of this report for more information.</p>
Relevant Local Environmental Matters					
Biodiversity Areas Overlay	LCC Planning Scheme, Biodiversity Areas Overlay Code	LCC	Attachment 7		<p>The Site supports Primary and Secondary Management Vegetation Area over the entirety of the Site as shown in inset. The entirety of the Site is also mapped as Biodiversity Areas Trigger and both Matters of State and Local Environmental Significance (polygons and lines).</p> <p>Refer to Section 6.3 of this report for further detail.</p>

Matter of Interest	Relevant Legislative Instrument or Policy	Referral Agency Triggered if	Relevant Database Searches/Attachment	Inset	Further Assessment
Waterway Corridors and Wetlands Trigger	LCC Planning Scheme, Biodiversity Areas Overlay Code	LCC	Attachment 7	Nil	<p>The Site is not mapped within the waterway corridors and wetlands trigger overlay.</p> <p>As such, no further assessment is required as part of this application.</p>

3 Flora Assessment

3.1 Desktop Assessment

The Site is located on gentle sloping topography with sedimentary geologies. The pre-clear Regional Ecosystem (RE) mapping shows that the Site historically supported a mix of RE 12.9-10.4 and RE 12.9-10.12 (60/40), as well as a polygon of RE 12.9-10.4. These REs are described as:

Least Concern RE 12.9-10.4 - *Eucalyptus racemosa subsp. racemosa* woodland on sedimentary rocks; and

Endangered RE 12.9-10.12 - Mixed woodland usually containing *Corymbia intermedia*, *Angophora leiocarpa* and at least the presence of *Eucalyptus seeana* on sedimentary rocks.

The full description for these communities can be found in the Regional Ecosystem Description Database (REDD) prepared by the Queensland Herbarium.

3.2 Database Searches

The PMST data (**Attachment 4**) indicates the potential occurrence of MNES plant communities and species in this locality. The Wildlife Online data also indicates confirmed records of EVNT species in the locality (**Attachment 5**). Conservation-significant species identified by these database searches have been reviewed for their likelihood of occurrence based on Site survey, aerial interpretation, Regional Ecosystem analysis and significant knowledge and understanding of the areas ecology from surveys conducted on adjoining and/or surrounding properties for the purposes of development assessment. Review of the Regional Ecosystem mapping and pre-clearing Regional Ecosystem mapping (**Attachment 6**) identifies existing and predicted, previously existing vegetation communities. This further guides the desktop assessment of the likely suite of fauna species persisting in this peri urban and transitioning landscape.

3.3 Survey Methodology

Baseline botanical assessment of the Site was undertaken by 28 South Environmental botanical and ecological staff on 15 July 2021. Surveys involved: a complete traverse of the

Site to review the Sites various ecological values including spatial mapping of semi-mature to mature native habitat trees (i.e. equal to or larger than 100mm Diameter at Breast Height (DBH)). Surveys also involved an assessment to determine whether the Site:

- i. Supported vegetation analogous with Threatened Ecological Communities identified as MNES under the EPBC Act;
- ii. Supported any plant species identified as MNES under the EPBC Act;
- iii. Was appropriately omitted or included on the RVMM;
- iv. Supported EVNT plant species; and
- v. Supported plant species or communities which were otherwise of conservation interest.

This level of detailed botanical survey is considered sufficient given the modified, disturbed nature of the Site.

3.4 Survey Findings

During the Survey, the Site was found to support native canopy trees including *Corymbia intermedia* (pink bloodwood), *Angophora leiocarpa* (rusty gum), *Eucalyptus seeana* (narrow-leaved red gum), *Eucalyptus siderophloia* (northern grey ironbark), *Eucalyptus tereticornis* (Queensland blue gum), *Eucalyptus racemosa subsp. racemosa* (scribbly gum) and *Corymbia citriodora subsp. variegata* (spotted gum). Other tree species included *Eucalyptus crebra* (narrow-leaved ironbark), *Eucalyptus acmenoides* (white mahogany), *Eucalyptus carnea* (broad leaved white mahogany), *Lophostemon confertus* (brush box), *Lophostemon suaveolens* (swamp box) and *Melaleuca quinquenervia* (broad-leaved paperbark).

Although the Site contains a number of large trees including trees over 500mm DBH, it is evident based on the general age cohort that most of the trees are regenerating from previous/historical clearing. Tree density is higher at the rear (southern side) of the Site with more closed canopy as a result. **However, the vegetation across the Site can generally be characterised as mixed Eucalyptus woodland.**

The shrub layer is generally absent due to previous clearing and potentially grazing activities.

The understorey is also generally absent in some parts of the Site with a patchy coverage in other parts. The understorey supports a mix of exotic and native ground cover species, with native species tending to be more prevalent where canopy cover shades the understorey. There are highly scattered regenerating canopy species and *Acacia* shrub species occurring within this layer. Common native ground cover species included *Microlaena stipoides* (weeping meadow grass), *Oplismenus aemulus* (creeping beard grass), *Paspalidium distans* (shotgrass), *Entolasia stricta*, *Imperata cylindrica* (blady grass), *Eragrostis brownii* (love grass), *Lepidosperma laterale* (variable sword sedge), *Hibbertia vestita* (hairy guinea flower), *Dianella caerulea* (blueberry flax lily) and a variety of *Lomandra spp.* (mat rush). Common exotic ground cover species included *Melinis repens** (red natal), *Axonopus compressus** (Broad-leaved Carpet Grass) and *Lantana camara** (common lantana) and *Bidens Pilosa** (cobble's pegs).

The survey confirmed that the Site does not support vegetation communities analogous with any defined TECs. The survey did not identify any flora species listed as MNES under the EPBC Act, or any EVNT species listed under the NC Act. Further, given the locality and the authors' experience in the locality, it is highly unlikely that any conservation significant species would persist '*In The Wild*' within the Site.

A tree location plan showing the surveyed trees on Site is provided in **Attachment 8** and a flora species list collected during the surveys is provided in **Attachment 9**.



Inset 1. Photo showing the condition of the majority of the Site (open Eucalypt woodland lacking shrub layer and with altered understory).

4 Fauna Habitat Assessment

4.1 Desktop Findings

Database searches revealed the historical occurrence of several conservation-significant species in the locality (**Attachments 4, 5 and 6**). The database searches informed the methodologies for the onsite fauna survey. The survey undertaken on 15 July 2021 included a detailed walk-through of the Site; a habitat assessment and a rapid habitat features survey of all habitats within and adjoining the Site. An assessment of habitat quality was used as a surrogate for presence of conservation-significant species. Analysis of the potential for impact utilising habitat assessment and known records has also guided this assessment's conclusions.

4.2 Fauna Likelihood of Occurrence

In order to determine the occurrence and subsequent potential impact to EVNT species, a desktop review of relevant sources was undertaken including the PMST (**Attachment 4**); DAWE Species Profiles and Threats (**SPRAT**) Database; the DES Wildlife Online Database (**Attachment 5**); DES Essential Habitat mapping; DES Watercourse mapping, and Atlas of Living Australia (**ALA**) spatial records. Based on known records of EVNT species (**Attachment 5**), 28 South have prepared a likelihood of occurrence assessment of potential for significant impacts.

Utilising local records and perceived habitat suitability, the presence of conservation significant fauna was evaluated as 'Known', 'Likely', 'Possible', 'Unlikely', 'Highly Unlikely' or 'Transient' based on their perceived probability of inhabiting/frequenting the Site. The following table describes each category of perceived probability.

Table 3 Conservation Significant Fauna Presence Assessment Criteria

Assessment	Habitat Criteria	Local Record Criteria	Perceived Probability
Known	The species has been confirmed as present within the Site, and those records are unlikely to represent transient or vagrant individuals.		100%
Likely	Habitat is considered moderately to good quality and	There is a number (~5 or greater) of local (≤ 10 km from the Site),	>50%

Assessment	Habitat Criteria	Local Record Criteria	Perceived Probability
	similar to other locations where the species is found	contemporary (post 1990) records of the species, or There is strong evidence that a cryptic species (which may not be frequently recorded in databases) has a nearby resident population(s).	
Possible	Habitat is marginal to moderate	The species is known by a few local contemporary records and is not a transient species.	20-50%
Unlikely	The habitat is marginal	There are few, if any, local contemporary records.	≤19%
Highly unlikely	The habitat is unsuitable	There are few, if any, local contemporary records.	0%
Transient	The habitat is suitable, marginal or good quality	The species is highly mobile and vagrant. They may infrequently appear in the local area over a long timeframe (e.g. 100+years) but are never resident or frequent visitors (e.g. return migrants). These species are typically birds which, while having some probability of occurring, are unlikely rely on the Site for their lifecycle or maintaining populations.	N/A

Based on a review of the Wildlife Online records shown in **Attachment 5**, an assessment of the four ENVT records is provided in **Table 4**.

Table 4 – ENVT Species Likelihood of Occurrence

Listed threatened species or ecological communities (MNES)	Listed Status	Likelihood of Occurrence	Potential for Significant Impact
white-throated needletail <i>(Hirundapus caudacutus)</i>	Vulnerable (NC Act) Endangered (EPBA Act)	Unlikely- A widespread (almost exclusively aerial) species which occurs over a wide range of habitats (DAWE 2019). This species is considered a unlikely occurrence at the Site. The Site and its surrounds do not present many habitat opportunities because of the historically disturbed nature of the area and encroaching urban areas.	Unlikely - This species is wide-ranging, cosmopolitan and highly mobile. It readily forages above urban areas and it is considered that the development is highly unlikely to impact this species.
glossy black-cockatoo (eastern) <i>(Calyptorhynchus lathami lathami)</i>	Vulnerable (NC Act)	Possible – This species requires open forest or woodland communities that support feed tree species which mainly include mature she-oak (<i>Allocasuarina spp.</i>) but also <i>Casuarina spp.</i> and <i>Callitris spp.</i> There is also a strong fidelity to feed trees for individual glossy black cockatoos. This species also requires large hollow-bearing trees for suitable nesting resources (Hourigan 2012).	Low Potential – the Site survey recorded 20 <i>Allocasuarina littoralis</i> , (black sheoak) which are fed trees for glossy black-cockatoo, however these are mostly younger-age trees (< 300mm DBH). It is considered that sufficient habitat and feed trees on the Site is low and the Site does not contain nesting or prominent feed trees, particularly also given the disturbance of the Site and recent agricultural/ rural residential uses.
regent honeyeater <i>(Anthochaera phrygia)</i>	Critically Endangered (NC Act) Critically Endangered (EPBC Act)	Possible – this species prefers forests and woodlands of ironbark, box, swamp mahogany and river oak. These habitats are likely to be highly limited within the Site. Most records of the regent honeyeater occur well to the south and south east of the Site. The closest record is approximately 1 km north of	Low Potential – limited resources are available for the regent honeyeater on Site. Given the age cohort of the feed/shelter trees available on Site and ongoing disturbance of the Site, it is considered unlikely that this species relies on the trees on Site and it is unlikely the species would be significantly impacted.

Listed threatened species or ecological communities (MNES)	Listed Status	Likelihood of Occurrence	Potential for Significant Impact
		the Site; however, this is not considered to be a reliable record given the historical nature of the records (~1970s).	
swift parrot <i>(Lathamus discolor)</i>	Endangered (NC Act)	Unlikely/Transient – this species prefers habitats with flowering trees in forests and woodlands. It sporadically appears in south-east Queensland where it is typically associated with stands of large flowering <i>E. tereticornis</i> .	Low Potential – very limited resources are available for the swift parrot within the Site, which does not contain notable stands of <i>E. tereticornis</i> – only two individuals of this tree species are present on Site. Given the age cohort of the feed/shelter trees available on Site and ongoing disturbance of the Site, it is considered unlikely that this species relies on the trees on Site.
	Critically Endangered (EPBC Act)		
koala <i>(Phascolarctos cinereus)</i>	Vulnerable	<p>Likely – koalas are found in a diversity of habitats including temperate, subtropical and tropical forest, woodland and semi-arid communities, and sclerophyll forests, on foothills, plains and coastal areas.</p> <p>A search of relevant databases within 2 km radii of the Site has identified 21.</p> <p>Despite koala being known to the region as noted above, it is important to consider koala in the context of the Site's values. The below provides a summary of this context.</p> <p>Koala movement opportunities occur through the remaining rural residential areas and lower riparian corridors.</p> <p>Koala are known to the broader locality.</p>	<p>Potential –</p> <p>Koala are known to the wider locality, and given the connectivity provided by lower riparian corridors in the locality, it cannot be discounted that koala would not utilise the Site from time to time. Koala food trees were identified during the Site survey including <i>Eucalyptus</i>, <i>Corymbia</i>, <i>Lophostemon</i>, <i>Melaleuca</i> and <i>Angophora</i> species. However, given the age cohort of the koala feed/shelter trees available on Site and ongoing disturbance of the Site, it is considered unlikely that the local population relies on the trees on Site. Further, similar habitats are abundant within the immediate locality.</p> <p>Koala connectivity from the Site to other koala habitat in the locality is also limited by virtue of the surrounding residences (including domestic dogs and fencing) and roads; the Site is bound on many fronts by impediments or risks.</p> <p>An assessment of the Proposed Development against the <i>EPBC Act Koala Assessment Referral Guidelines</i> has identified that the action is unlikely to give rise to a</p>
	Vulnerable		

Listed threatened species or ecological communities (MNES)	Listed Status	Likelihood of Occurrence	Potential for Significant Impact
			<p>significant impact to koala and as such no self-assessable referral to the DAWE is deemed necessary. Vegetation clearing for the proposed development would impact habitat with a score of 4 under the EPBC Act koala habitat assessment tool¹. A score of 4 or less is considered to represent habitat that is not critical to the survival of the koala. As such, Controlled Action Referral to the DAWE is not warranted for the proposed development.</p> <p>As identified in Section 2 of this report, the Site is not mapped within the PKA. The Site is mapped as containing CKHA. Further assessment against the provisions of the State Code 25 have been undertaken as part of this reporting.</p>

Desktop analysis supported by the survey findings has identified that there are five (5) potential fauna species listed as MNES under the EPBC Act and EVNT species listed under the NC Act that could occur within the locality of the Site. **Table 4** highlights that, apart from koala, it is unlikely that these fauna species would occur within the Site. No conservation significant fauna was observed on Site during the survey.

Overall, the Site is considered to be of generally low to moderate ecological and habitat value, considering the Site's historic modification as a rural residential property, ongoing understorey maintenance, lack of structural complexity, and surrounding similar rural residential development surrounding the Site and more generally in the broader locality. Notwithstanding, the vegetation within the Site is likely to provide foraging, resources and habitat for locally common fauna within the immediately locality, particularly urban-edge generalists, open country aves and vagile species. The Site does contain a number of large trees (> 500mm

¹ A score of +1 for occurrence, +2 for vegetation composition, 0 for habitat connectivity, 1 for key existing threats, 0 for recovery value. It is noted that connectivity is heavily affected all around the Site given the surrounding development and the Logan Reserve Plan (as discussed in Section 5.1 of this report).

DBH) and 15 trees were recorded during the survey as having hollow-bearing features. However, similar habitats and resource types are abundant within the immediate locality.

Further, landscape connectivity for the habitats on Site in the context of the broader locality is considered limited in light of surrounding development and State approved Council planning for the Logan Reserve area; this is discussed further in **Section 5.1** below.

5 Potential Impacts and Proposed Mitigation

5.1 Potential Impacts and Planning Considerations

The proposed development is for a MCU and RoL to establish 80 residential allotments and new internal roads and larger Collector Roads per the Logan Reserve Plan. The proposal is considered to be appropriate and consistent with the development pattern that has been occurring within the broader locality, including currently proposed and approved developments in the surrounds of the Site as shown in **Attachment 10**. The proposed residential subdivision will not have sufficient capacity to achieve a restoration offset or on-ground Proponent driven offset given the entirety of the Site will be required for development purposes. The Site will retain its urban purpose and is not proposed for restoration or offsets.

The State approved Logan Reserve Land Use Area plan (**Logan Reserve Plan**), which is incorporated into the Logan Planning Scheme, Strategic Framework, identifies that the Site and immediate surrounds are located within the Suburban Precinct and planned for “low density residential area” (**Attachment 10**). The Site is not identified as being connected to any Environmental Management and Conservation Areas under the Logan Reserve Plan. The roads planned and required for the extensive development in surrounding areas will present further significant ecological impediments to fauna movement in / out of the Site, including koala. Urban collector roads typically carry more than 3,000 vehicles per day at speeds up to 60km/hr and are a significant barrier to koala access.

Based on the Logan Reserve Plan, the southern boundary of the Site will directly adjoin a designated collector road. The north, east and west will adjoin private residences within the Suburban Precinct and likely other collector roads. We also note that further north between the Site and existing ecological corridor of Schmidts Creek is School Road, a planned Urban Arterial Multi Modal Dual Carriageway; School Road itself is planned to be upgraded to a four lane sub-arterial road.

The isolated/ fragmented context of the Site within the medium term, given the Logan Reserve Plan, will see the Site and its habitats become completely enveloped by low-density residential development with no provision for ecological connectivity. This continued and increasing fragmentation is a result of ad hoc development sequencing over individual allotments, which is

uncontrollable given the planning frameworks applicable. This results in the small patches of CHKA and LRKHA becoming enveloped and unsustainable for koalas; and, eventually lost to koala by way of complete isolation. The status quo of this on-going development process needs consideration from an impact perspective, noting that investment into important regional ecological corridors would provide a significantly better outcome as opposed to the retention of small pockets of functionally isolated vegetation with limited to no utility to most fauna.

Further, as on-going development and infrastructure establishment continues, a higher level of risks are likely to be posed to native fauna trying to access the Site, particularly for koala (e.g. vehicle collision and domestic dogs). As such, it is not the intention of the proposed development to encourage unrestricted fauna movement through the Site, particularly for koala. Additionally, given the previously cleared / modified nature of the habitat on Site, it is considered unlikely that conservation significant fauna rely on the Site's existing habitats and resources.

It is additionally noted that given the proposed subdivision of the Lots 25-26 on RP97736 and the new Lot 2003 at the Site, residential land use at the Site could still result in residential dwellings being located in koala habitat plus the required bushfire management zones increasing the loss of koala habitat for the new residence without triggering further assessment.

5.2 Mitigation Measures

Fauna management measures during construction should include;

- the preparation of a fauna management plan;
- pre-clearing fauna assessments; and
- the use of a suitably qualified fauna spotter catcher will reduce the potential for impacts to fauna during the clearing process.

Native trees removed from the proposed development footprint could be dried and mulched for re-use in landscaping.

A response to the State Code 25 has been undertaken in **Section 6.2.1** of this Report. Due to the nature of the existing land uses and ecological conditions on Site, it is not expected that koala would utilise the Site during construction, nor will there be safe movement through the Site during construction (fenced to avoid public access); however, the proposed Vegetation and Fauna Management Plan (**VFMP**) will reflect the requirements of Sections 10 and 11 of the *Nature Conservation (Koala) Conservation Plan 2017*.

An offset in accordance with the *Environmental Offsets Act 2014* will be provided prior to the commencement of construction (refer **Section 7** of this report). It is considered that a financial offset will allow a more connected habitat corridor to be established in more suitable areas, compared to retention or rehabilitation of habitat within the Site which will become more or less isolated / fragmented from other vegetation in the immediate locality.

6 Statutory Compliance

6.1 EPBC Act

Attachment 4 of this report details the Protected Matters Search Tool (**PMST**) result for the site and 5km from the site, and **Attachment 5** details the associated wildlife online search. It is noted that several identified species with both Australian and Queensland conservation status are known to occur within 5km of the search area, including the following:

- *Anthochaera phrygia* (regent honeyeater)
- *Lathamus discolor* (swift parrot)
- *Phascolarctos cinereus* (koala)

As noted in **Table 4** above there is “low potential” that regent honeyeater or swift parrot habitat is found onsite, **and as such will not trigger a standalone referral to the DAWE**. Careful consideration regarding the “Potential” habitat determination for koala has also been undertaken. With reference to the *EPBC Act Koala Assessment Guidelines*, the Site does not provide habitat which is considered critical for the survival of koala.

As such, 28 South does not consider a controlled action referral to the DAWE warranted. In making this recommendation, particular consideration has been given to koala, and the EPBC Act Koala Referral Guideline.

6.2 State of Queensland –*Planning Regulation 2017- Schedule 10, Part 10*

6.2.1 State Code 25

It is considered that the proposed development will result in the encroachment into the mapped CKHA. An assessment against the provisions of the State Code 25 is provided in **Table 5** below.

Table 5 – Assessment of the proposed development against the State Code 25

Performance Outcomes	Acceptable Outcomes	Response
Retaining Koala Habitat Areas		
<p>PO1 Development interfering with koala habitat (including interfering with koala habitat as a result of material change of use and interfering with koala habitat as a result of reconfiguring a lot) does not occur unless the application demonstrates the interfering with koala habitat has:</p> <ol style="list-style-type: none"> 1. been reasonably avoided; or 2. been reasonably minimised where it cannot be reasonably avoided; and 3. mitigated the impacts of the interfering with koala habitat values. 	<p>No acceptable outcome is prescribed.</p>	<p>Alternative Solution Proposed</p> <p>As discussed in detail in Section 5.1 of this report, the proposal is considered to be appropriate and consistent with the development pattern that has been occurring within the broader locality and the vegetation / habitats within the Site have become fragmented in the context of the broader locality as a result. The long-term context of the Site in light of the Logan Reserve Plan indicates the habitats on Site is and will become increasingly isolated within the developed surrounds.</p> <p>Further, given the previously cleared / modified nature of the habitat on Site, it is considered unlikely that koala rely on the Site's habitats and resources. With reference to the <i>EPBC Act Koala Assessment Guidelines</i>, the Site does not provide habitat which is considered critical for the survival of koala.</p> <p>As discussed in Section 5.1 of this report, it is additionally noted that given the proposed subdivision of the Lots 25-26 on RP97736 and the new Lot 2003 at the Site, residential land use at the Site could still result in residential dwellings being located in or adjacent to the mapped CKHA, which may result in the clearing of the CKHA for Exempted Development provisions such as bushfire management zones or Accepted Development</p>

Performance Outcomes	Acceptable Outcomes	Response
		<p>Clearing Codes which would increase the loss of koala habitat for the new residence without triggering further assessment.</p> <p>An iterative design process has been undertaken in the preparation of this design in response to the ground-truthed environmental constraints. The proponent has considered alternative design layouts, however, no alternative design has been considered viable from an engineering and strategic planning basis with the requirements of road network and servicing from the adopted Logan Reserve Plan and adjoining approved road network.</p> <p>Potential minimisation strategies have been carefully considered in light of the ground truthed ecological values present on Site. Assessment and consideration of the long term strategic planning outcomes and future value of the highly fragmented and limited connectivity of the Site have been undertaken, specifically given the proposed transport corridor assessments undertaken for the wider area will significantly encroach into and further fragment any retained habitat, therefore resulting in an islanded patch of inaccessible low value vegetation.</p> <p>An offset in accordance with the <i>Environmental Offsets Act 2014</i> will be provided prior to the commencement of construction (refer Section 7 below). Whilst the principles of the Offsets Policy and SDAP Code 25 require avoidance, minimisation and mitigation before diversion to offsets, the applicant proposes that consideration of the status quo and the known ongoing</p>

Performance Outcomes	Acceptable Outcomes	Response
		<p>growth and development in the Logan Reserve Plan. Such consideration of a state offset (coupled with the offsets for MLES) will allow for connected habitats/ corridors to be maintained/ established in a more suitable area of in the region being invested into, thus affording better ecological and habitat outcomes for koalas; when compared with potential retention and rehabilitation of a small, oddly shaped component of habitat within the Site. This proposal needs to be considered not with a blinkered approach to the Site's vegetation, but rather, the likely and imminent enveloping of this and other parcels of mapped CKHA and LRKHA in the Logan Reserve Land Use Area..</p>
Koala Sensitive Design and Connectivity		
<p>PO2 The design and siting of development avoids fragmenting koala habitat areas within the site.</p>	<p>No acceptable outcome is prescribed.</p>	<p>Alternative Solution Proposed</p> <p>The mapped CKHA areas when considered within the Site and the strategic planning framework is not connected and severed from other areas of mapped CKHA. Surrounding existing and proposed residential developments and urban road systems with limited safe movement opportunities, is shown in Attachment 1, 2 and 10.</p> <p>While we acknowledge that the proposed development may fragment the mapped CKHA when considered in isolation, Attachment 10 of this identifies that the surrounding approved developments to the south and east and the proposed applications to the north and northwest will render any retained vegetation as part of this development as functionally islanded. Future growth</p>

Performance Outcomes	Acceptable Outcomes	Response
		<p>in the areas between these approvals and applications will continue to progress over time until land supply is extinguished. This also needs to be taken into consideration when assessing the viability of this mapped CHKA and its utility to koala once enveloped by residential land uses.</p>
<p>PO3 The design and siting of development does not result in impediments that restrict the movement of koalas by providing for safe koala movement between highly connected patches of retained koala habitat area.</p>	<p>No acceptable outcome is prescribed.</p>	<p>Alternative Solution Proposed</p> <p>The mapped CKHA, when considered in terms of the strategic transport planning, approved and proposed development has resulted in significant existing and proposed impediments to safe koala movement (Refer Attachment 10 and Section 5.1 above). We consider that the mapped CKHA to the north and west of the site is will be removed by currently proposed development applications, and the significant movement impediments resulting from the proposed strategic transport corridors will result in no viable safe movement opportunities (refer Attachment 1, 2 and 10.)</p> <p>While we acknowledge that the proposed development may fragment the mapped CKHA when considered in isolation, Attachment 10 of this identifies that the surrounding approved developments to the south and east and the proposed applications to the north and northwest will render any retained vegetation as part of this development as functionally islanded. Future growth in the areas between these approvals and applications will continue to progress over time until land supply is extinguished. This also needs to be taken into consideration when assessing the viability of this</p>

Performance Outcomes	Acceptable Outcomes	Response
		mapped CHKA and its utility to koala once enveloped by residential land uses.
Koala Safety from Construction Activities		
<p>PO4 The construction of the development does not increase the risk of injury or death of koalas.</p>	<p>AO4.1 A koala management plan is provided that includes:</p> <ol style="list-style-type: none"> 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 <p>Note: To demonstrate compliance with this acceptable outcome, a koala management plan must be prepared by a suitably qualified and experienced person.</p> <p>AND</p> <p>AO4.2 Interfering with koala habitat complies with the sequential clearing and koala spotter requirements under section 10 and 11 of the Nature Conservation (Koala) Conservation Plan 2017.</p>	<p>Not Applicable</p> <p>A standalone Koala Management Plan is not viable for this application as it is not proposing to retain any land. The applicant has committed to assessing and managing construction activities that may result in injury or death to koala through a comprehensive Vegetation and Fauna Management Plan (VFMP) as part of the Operational Works phase of the development and a Construction Environmental Management Plan (CEMP) as part of the construction phase of the development.</p> <p>This reporting for the VFMP will be completed by a suitably qualified and experienced ecologist.</p> <p>The VFMP and CEMP will detail the sequential clearing requirements and qualified and experienced koala fauna spotter catcher requirements in accordance with Section 10 and 11 of the <i>Nature Conservation (Koala) Conservation Plan 2017</i>.</p>
Matters of State Environmental Significance		
<p>PO5 Development:</p>	<p>No acceptable outcome is prescribed.</p>	<p>Complies</p> <p>While we acknowledge that the Site is mapped to support identified MSES as discussed in Section 2 of</p>

Performance Outcomes	Acceptable Outcomes	Response
<p>1. avoids impacts on matters of state environmental significance; or</p> <p>2. minimises and mitigates impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and</p> <p>3. provides 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 that is a prescribed environmental matter.</p> <p>Note: Guidance for determining if development will have a significant residual impact on koala habitat areas is provided in Chapter 2A of the Queensland Environmental Offsets Policy. Guidance for determining if development will have a significant residual impact on all other matters of state environmental significance is provided in the Significant Residual Impact Guideline, Department of State Development, Infrastructure and Planning, 2014.</p>		<p>this report. However, the proposal is considered to be appropriate and consistent with the LCC Planning Scheme Strategic Framework and associated development pattern that has been occurring within the broader locality and the vegetation / habitats within the Site have become fragmented in the context of the broader locality as a result (as discussed further in Section 5.1 of this report). This is further detailed in response to PO1 above.</p> <p>An iterative design process has been undertaken in the preparation of this design in response to the ground-truthed environmental constraints. The proponent has considered alternative design layouts, however, no alternative design have been considered viable from an engineering and strategic planning basis.</p> <p>Potential minimisation strategies have been carefully considered in light of the ground truthed ecological values present on Site. Assessment and consideration of the medium-term strategic planning outcomes of the site have been undertaken, specifically given the proposed transport corridor assessments undertaken for the wider area will significantly encroach into and further fragment any retained habitat, therefore resulting in an islanded patch of inaccessible low value vegetation.</p> <p>An offset in accordance with the <i>Environmental Offsets Act 2014</i> will be provided prior to the commencement of construction. The proposed residential subdivision will not have sufficient capacity to achieve a restoration offset or on-ground Proponent driven offset given the entirety of the Site will be required for development</p>

Performance Outcomes	Acceptable Outcomes	Response
		<p>purposes. The Site will retain its urban purpose and is not proposed for the purposes of restoration or offsets. Refer to Section 7 of this report for further details regarding offsets. The status quo of this on-going development process needs consideration from an impact perspective, noting that investment into important regional ecological corridors would provide a significantly better outcome as opposed to the retention of small pockets of functionally isolated vegetation with limited to no utility to most fauna.</p> <p>It is considered that a state offset (coupled with the necessary MLES offset) will allow a more connected habitat corridor to be established in more suitable areas in SEQ, compared to retention or rehabilitation of habitat within the Site which will become more or less isolated / fragmented from other vegetation in the immediate locality.</p>
Category C and R vegetation		
<p>PO6 Development:</p> <ul style="list-style-type: none"> • avoids impacts on category C areas of vegetation and category R areas of vegetation; or • minimises and mitigates impacts on category C areas of vegetation and category R areas of vegetation after demonstrating avoidance is not reasonably possible. 	<p>No acceptable outcome is prescribed.</p>	<p>Complies</p> <p>The Site does not contain mapped category C areas or category R areas of vegetation.</p>

6.3 Logan City Council Planning Scheme

The Site is wholly mapped within the LCC Emerging Community Zone. The Site is mapped to contain ecologically relevant overlays within the Biodiversity Areas Overlay in the LCC Planning Scheme, including:

- Biodiversity Areas Trigger;
- Primary and Secondary Vegetation Management Areas; and
- Matters of State and Local Environmental Significance (polygons and lines).

An assessment of the proposed development against the ecologically relevant performance outcomes within the Biodiversity Areas Overlay Code is provided in **Table 6** below.

Table 6 – Assessment against LCC’s Biodiversity Areas Overlay Code

Performance outcomes	Acceptable Outcomes	Response
For accepted development (subject to requirements) and assessable development		
Biodiversity Corridors		
<p>PO1</p> <p>Development in a Biodiversity corridor identified on Biodiversity areas overlay map - OM002.02 is designed and located to:</p> <ul style="list-style-type: none"> a) Provide for habitat links; b) Facilitate safe wildlife movement; c) Facilitate wildlife refuge; d) Enhance habitat values; e) Rehabilitate degraded areas with native vegetation. <p>Note – compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report prepared in accordance with Part 2 of planning scheme policy 3 – Environmental Management.</p>	<p>AO1</p> <p>Development is located outside a Biodiversity corridor identified on Biodiversity areas overlay map – OM-02.02.</p>	<p>AO1- Not Applicable</p> <p>The proposed development is not in proximity to, nor does it contain a Biodiversity Corridor.</p>
Primary Vegetation Management Area		

Performance outcomes	Acceptable Outcomes	Response
<p>PO2</p> <p>Development in the Primary Vegetation Management Area identified on Biodiversity areas overlay map – OM-02.01 is designed and located:</p> <p>a) To:</p> <p>i. Protect the current extent of native vegetation; or</p> <p>ii. Achieve a net gain of native vegetation;</p> <p>b) To rehabilitate degraded areas with native vegetation.</p> <p>Note – Compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report [for section (a)(i)] and an environmental offset report [for section (a)(ii)] prepared in accordance with Part 2 of planning scheme policy 3 – Environmental management.</p>	<p>AO2.1</p> <p>Development is located to avoid the need to clear any native vegetation in the Primary Vegetation Management Area identified on Biodiversity areas overlay map – OM-02.01, unless:</p> <p>a) If identified as a matter of local environmental significance and not both matters of local and state environmental significance on Biodiversity areas overlay map – OM-02.04, an offset is provided in accordance with section 3.1 – Environmental offset standards in Planning scheme policy 3 – Environmental management; or</p> <p>b) If identified as both matters of local and state environmental significance or matter of state environmental significance on Biodiversity areas overlay map – OM-02.04, an offset is provided in accordance with the Queensland Environmental Offset Policy and the <i>Environmental Offsets Act 2014</i>.</p> <p>Note – Compliance with AO2.1(a) is to be demonstrated by an environmental offset report prepared in accordance with Part 2 of planning scheme policy 3 – Environmental management.</p> <p>Note – For purposes of AO2.1(b) the Queensland Government has separate regulatory requirements for matters of state environmental significance. This is regulated by the State Department Assessment Provisions.</p> <p>Note – Where the native vegetation is identified as Both matters of Local and State environmental significance and no offset is required by the Queensland Government for the native vegetation identified as a matter of state environmental significance, development is located to avoid the need to clear the native vegetation.</p>	<p>AO2.1- Complies</p> <p>The Site is mapped to support both the Primary Vegetation Management area and both the Matters of State and local significance.</p> <p>However, the proposal is considered to be appropriate and consistent with the development pattern that has been occurring within the broader locality and the vegetation / habitats within the Site have become fragmented in the context of the broader locality as a result (as discussed further in Section 5.1 of this report).</p> <p>The long-term context of the Site in light of the Logan Reserve Plan indicates the habitats on Site will become isolated within the developed surrounds. No TECs or threatened species were observed on Site during in-field survey. Given the previously cleared / modified nature of the habitat on Site, it is considered unlikely that conservation significant fauna rely on the Site’s habitats and resources.</p> <p>An offset in accordance with the <i>Environmental Offsets Act 2014</i> will be provided prior to the commencement of construction. Refer to Section 7 of this report for further details regarding offsets.</p>

Performance outcomes	Acceptable Outcomes	Response
	<p>AO2.2</p> <p>Development rehabilitates degraded areas in accordance with the South East Queensland Ecological Restoration Framework.</p>	<p>AO2.2- Not applicable</p> <p>No rehabilitation is proposed as part of this application.</p>
Secondary Vegetation Management Area		
<p>PO3</p> <p>Development in the Secondary vegetation management area identified on Biodiversity areas overlay map – OM-02.01 is designed and located to either:</p> <ul style="list-style-type: none"> a) Protect the current extent of native trees and native habitat trees; or b) Achieve a net gain of native trees and native habitat trees. <p>Note – Compliance with this performance outcome is to be demonstrated by a basic ecological assessment report [for paragraph (a)] and environmental offset report [for section (b)] prepared in accordance with Part 2 of planning scheme policy 3 – Environmental management.</p>	<p>AO3</p> <p>Development is located to avoid the need to clear any native trees and native habitat trees in the Secondary vegetation management area identified on Biodiversity areas overlay map - OM-02.01, unless:</p> <ul style="list-style-type: none"> a) If clearing less than 10 native trees, compensatory planting is provided of: <ul style="list-style-type: none"> 1) Two trees of the same species for every native tree cleared in a secondary vegetation management area; 2) Four trees of the same species for every native habitat tree cleared in a secondary vegetation management area; b) If identified as a matter of local environmental significance and not both matters of local and state environmental significance on Biodiversity areas overlay map – OM-02.04, an offset is provided in accordance with section 3.1 – Environmental offset standards in Planning scheme policy 3 – Environmental management; or c) If identified as both matters of local and state environmental significance of matters of state environmental significance on Biodiversity areas overlay map – OM-02.04, an offset is provided in accordance with the Queensland Environmental Offset Policy and the <i>Environmental Offset Act</i>. <p>Note—Compliance with AO3(b) is to be demonstrated by an environmental offset report prepared in accordance with Part 2 of planning scheme policy 3—Environmental management.</p>	<p>AO3</p> <p>The Site is located in the Secondary Vegetation Management Area and both the Matters of State and local significance. The proposed development will result in the removal of native canopy trees from the Secondary Vegetation Management Area sub-category mapping within the Site.</p> <p>Refer response to AO2 above.</p> <p>An offset in accordance with the <i>Environmental Offsets Act 2014</i> will be provided prior to the commencement of construction.</p>

Performance outcomes	Acceptable Outcomes	Response
	<p>Note—For the purpose of A03(c) the Queensland Government has separate regulatory requirements for matters of state environmental significance. This is regulated by the State Development Assessment Provisions.</p> <p>Note—Where the native vegetation is identified as a matter of state environmental significance and no offset is required by the Queensland Government for the native vegetation identified as a matter of state environmental significance, development is located to avoid the need to clear the native vegetation.</p>	
Koala Corridor		
<p>PO4</p> <p>Development in a Koala corridor identified on Biodiversity areas overlay map—OM—02.02 is designed and located to protect and enhance koala habitat.</p> <p>Note—Compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report prepared in accordance with Part 2 of planning scheme policy 3—Environmental management.</p>	<p>A04</p> <p>Development:</p> <ul style="list-style-type: none"> a) is located to avoid the need to clear any native vegetation in a Koala corridor identified on Biodiversity areas overlay map—OM—02.02; b) in a Koala corridor identified on Biodiversity areas overlay map—OM—02.02 rehabilitates degraded koala habitat values within the Koala corridor, in accordance with the South East Queensland Ecological Restoration Framework. 	<p>A04- Complies</p> <p>The Site is not within or near a Koala Corridor.</p>
Locally Significant Vegetation Area		
<p>PO5</p> <p>Development in a Locally significant vegetation area identified on the Biodiversity areas overlay map—OM-02.03 protects Melaleuca irbyana, vine forest, Gossia gonoclada and significant remnant vegetation areas from:</p> <ul style="list-style-type: none"> a) encroachment; b) edge effects. <p>Note—Compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report</p>	<p>A05</p> <p>Development is located outside of a Locally significant vegetation area as identified on Biodiversity areas overlay map—OM-02.03.</p>	<p>A05 -Complies</p> <p>The Site is not within or near any Locally Significant Vegetation Areas.</p>

Performance outcomes	Acceptable Outcomes	Response
prepared in accordance with Part 2 of planning scheme policy 3—Environmental management.		
For assessable development		
Wildlife Movement		
<p>PO6</p> <p>Development within a Biodiversity corridor or koala corridor identified in Biodiversity areas overlay map OM-02.02 provides for the safe movement of native fauna by:</p> <ul style="list-style-type: none"> a. generating minimal additional night time traffic; b. minimising the risk of injury or death to wildlife by vehicular traffic c. incorporating practices or measures to minimise disruption, injury or death during construction; d. providing that a road or accessway has a low design speed; e. providing fauna-friendly fencing. <p>Note – Compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report prepared in accordance with Part 2 of the planning scheme policy 3 – Environmental management.</p>	<p>AO6</p> <p>Development in a Biodiversity corridor or koala corridor identified on Biodiversity areas overlay map OM-02.0 provides for the safe movement of native fauna through the implementation of:</p> <ul style="list-style-type: none"> a. the Queensland Government Fauna Sensitive Road Design Manual Volume 2: Preferred Practices; b. the Queensland Government Koala-sensitive Design Guideline. 	<p>AO6- Complies</p> <p>The Site is not within or near a Biodiversity corridor or koala corridor.</p>
Locally significant Melaleuca irbyana buffer area		
<p>PO7</p> <p>Development within the Locally significant Melaleuca irbyana buffer area identified on Biodiversity areas overlay map OM-02.03 protects the Locally significant Melaleuca irbyana area identified on Biodiversity areas overlay map OM-02.03 from:</p> <ul style="list-style-type: none"> a. edge effects; b. adverse changes to the local hydrology. <p>Note – Compliance with this performance outcome is to be demonstrated by a detailed ecological assessment report prepared in accordance with Part 2 of planning scheme policy 3 – Environmental management.</p>	<p>AO7</p> <p>Development within the Locally significant Melaleuca irbyana buffer area identified on Biodiversity areas overlay map OM-02.03 provides for a vegetated buffer within 50 metres of the Locally significant Melaleuca irbyana area identified on Biodiversity areas overlay map OM-02.03.</p>	<p>AO7-Complies</p> <p>The Site is not within the mapped Locally Significant <i>Melaleuca irbyana</i> buffer area.</p>
Landscape values		

Performance outcomes	Acceptable Outcomes	Response
<p>PO8</p> <p>Development is designed and located to protect and enhance the landscape values of:</p> <ul style="list-style-type: none"> a. ridgeline; b. native vegetation. 	<p>A08</p> <p>No acceptable outcome provided.</p>	<p>PO8- Complies</p> <p>The proposed development will result in the loss of vegetation within the Site. Refer response to PO2 above.</p> <p>An offset in accordance with the Environmental Offsets Act 2014 will be provided prior to the commencement of construction.</p>
Lighting		
<p>PO9</p> <p>Development in a Biodiversity corridor or Koala corridor identified on Biodiversity areas overlay map OM-02.02 is designed to minimise adverse light impacts on native fauna.</p>	<p>A09</p> <p>Lighting associated with development in a Biodiversity corridor or Koala corridor identified on Biodiversity areas overlay map OM-02.02:</p> <ul style="list-style-type: none"> a. complies with the dark surrounds lighting levels in AS4282-1997 – Control of the obtrusive effects of outdoor lighting; b. is directed away from areas identified on Biodiversity areas overlay map OM-02.00. 	<p>PO9-Complies</p> <p>The proposed development is not located in a mapped biodiversity or koala corridor. All public lighting utilised as part of this development will be consistent with the requirements of AS4282-1997.</p>

7 Preliminary Environmental Offsets Report

As identified in **Section 2** of this report, the Site is mapped to contain both Primary and Secondary Vegetation Management Areas under the Biodiversity Areas Overlay in the LCC Planning Scheme.

In accordance with AO2.1 of the Biodiversity Areas Overlay code, the Applicant has entered into an Infrastructure Agreement with Council for the purpose of providing a monetary contribution for clearing within the Primary Vegetation Management Area.

For the Secondary Vegetation Management Area within the Site, the Applicant will make the payment of a monetary contribution in accordance with Planning Scheme Policy 3 of the *Logan Planning Scheme 2015*, which will cost \$123.60 per native tree and \$247.20 per native habitat tree.

The *Logan Planning Scheme 2015*, Schedule 1, SC1.2 defines the following terms:

- Native tree: A tree, whether dead or alive, that is indigenous to Australia: that is greater than four metres in height, or has a trunk circumference of 31.5 cm or greater measured at 1.3 metres from the ground; and
- Native habitat tree: A tree, whether dead or alive, that is indigenous to Australia: that has a trunk circumference of 220 cm or more, or contains a hollow.

To comply with the provisions of the of the *Logan Planning Scheme 2015*, SC6.2.3, Planning Scheme Policy 3- Environmental Management, Section 3.1.9 , this preliminary environmental offset report has been provided based on the proposed development footprint (refer **Attachment 2**).

7.1 Financial Environmental Offset

7.1.1 Core Koala Habitat Area

The impact footprint has been identified in accordance with the EPP2.21/1658 Version 1.10 *Environmental Offsets Policy*, Section 2A.5 Financial Settlement Offsets. The impact footprint has been calculated as the following:

Impact Area (ha) = Number of non-juvenile koala habitat trees being impacted **(849) X 0.004ha**

As such, the impact area for this site is calculated as 3.396ha (Refer **Attachment 11**). As a financial offset for the balance of the Site which contains CKHA, an Environmental Offsets Estimate has been generated for the impact area completed through the Queensland Financial Settlement Offset Calculator. The offset contribution for loss of CKHA has been calculated at **\$608,743.19** (refer **Table 7** below).

Table 7 – Offset contribution (CKHA)

Logan City Council koala Habitat area	
Total on ground cost	\$203,760.00
Landholder incentive payment	\$354,043.19
Administrative cost	\$50,940.00
Total koala habitat cost for Logan City Council	\$608,743.19

7.1.2 Primary Vegetation Management Area

The proposed development footprint will result in an impact of approximately 1.49 ha of the Primary Vegetation Management Area.

As the financial offset for the balance of the Site which is Secondary Vegetation Management Area will be calculated based on the loss of native trees and native habitat trees (refer **Section 5.1.2** above), an Environmental Offsets Estimate has been generated for the Primary Vegetation Management Area within the Site based on LCC's Interactive Mapping Tool (**Attachment 12**). This second Estimate states that the Site has an ecological index of 18.98 for MSES-MLES areas and 18.96 for MLES areas, which equates to MLES 2 as defined in the *Planning scheme policy 3 – Environmental management*. The Environmental Offset Estimate Report states that the proposed development footprint will have a total impact of 14,843.3m² with an estimated offset amount of **\$242,442.95**.

7.1.3 Secondary Vegetation Management Area

A detailed tree survey has been completed to support calculation of the financial offset using the number of native trees and native habitat trees proposed to be cleared in the Secondary Vegetation Management Area. The survey also confirmed the density of the trees on Site is less than one tree per 10m² based on a total of 907 trees within the development footprint area of 43,130m². A tree plan showing the native trees and native habitat trees within the development footprint is provided in **Attachment 8**. The offset contribution for loss of native trees and native habitat trees comes to **\$77,230.50** (refer **Table 8** below).

Table 8 – Offset contribution (Secondary Vegetation Management Area)

Tree Category	Number of Trees For Offset	Estimated Cost of Individual Trees	Calculated Offset Cost
Native Tree	586	\$128.29	\$ 75,177.94
Native Habitat Tree	8	\$256.57	\$ 2,052.56
Total Cost			\$ 77,230.50

7.1.4 Summary of Offset Contribution

In total, the offset contribution for the proposed development comes to **\$928,416.64** (refer **Table 9** below).

Table 9 – Final offset contribution summary

Offset Category	Offset Contribution
Logan City Council koala habitat area – Queensland Settlement offset calculator	\$ 608,743.19
Primary Vegetation Management Area – LCC Environmental Offsets Estimate	\$ 242,442.95
Secondary Vegetation Management Area – Native Trees	\$ 75,177.94
Secondary Vegetation Management Area – Native Habitat Trees	\$ 2,052.56
Total Offset Contribution	\$ 928, 416.64

8 Summary and Conclusions

This EAR has assessed the ecological and environmental planning matters applicable to the proposed development through statutory planning considerations and an ecological assessment of the Site and its context in the locality. This ecological assessment has identified the ecological values supported within the Site and the impacts likely to occur should the proposed development be approved in its current layout.

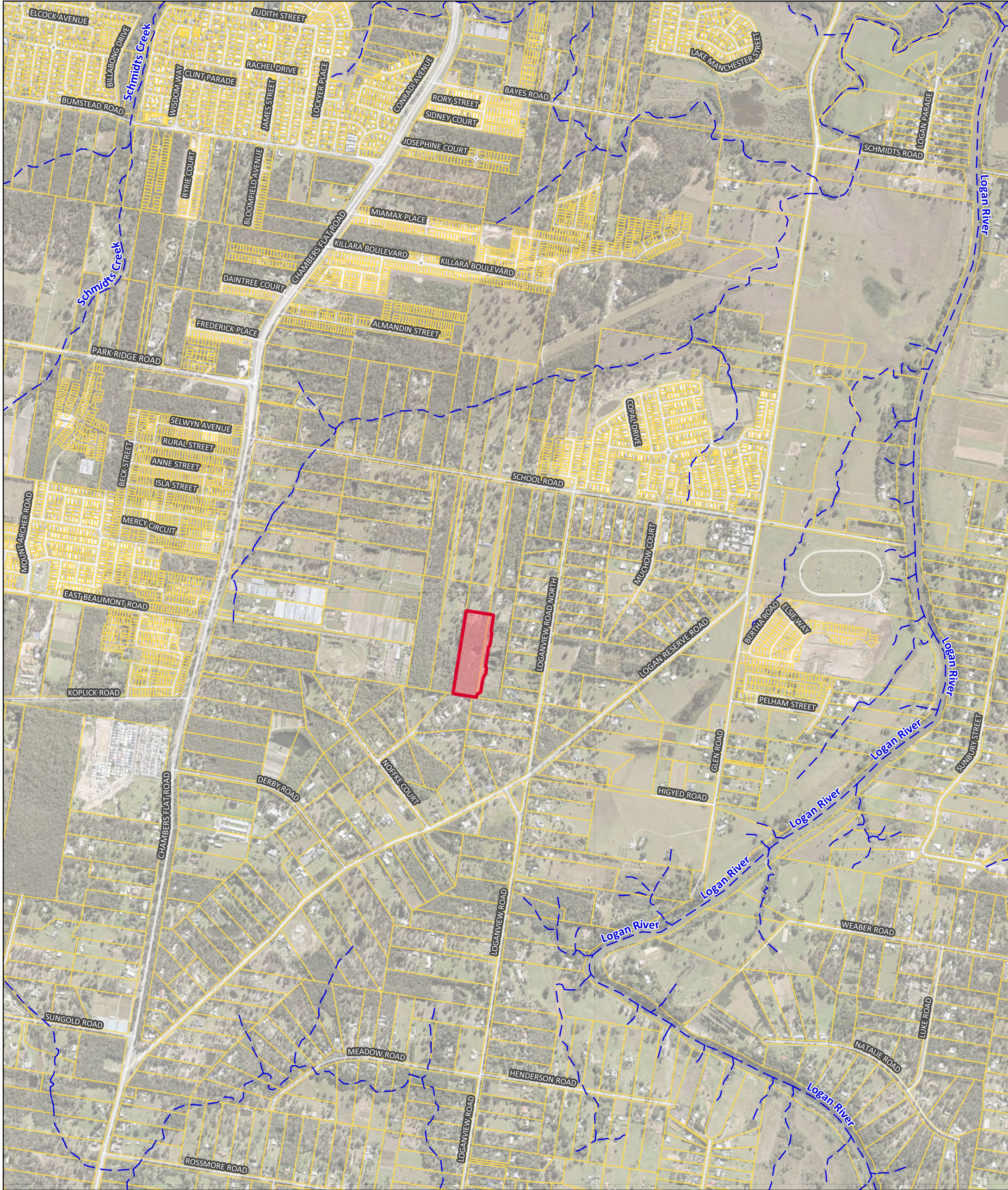
The Site is unencumbered by Federal ecological or environmental planning constraints. At a State and local level, the Site is mapped to contain a number of MSES under the provisions of Schedule 10 of the Planning Reg and MLES under the LCC Planning Scheme Biodiversity Areas Overlay.

From the States perspective, the Site contains MSES regulated vegetation (essential habitat), MSES Wildlife habitat (SEQ koala habitat - core), MSES wildlife habitat (special least concern animal) and MSES wildlife habitat (endangered or vulnerable). At a local level, this includes Biodiversity Areas, Primary and Secondary Vegetation Management Area and Matters of State and Local Environmental Significance.

The proposed development will result in the removal of vegetation within the Site based on the current layout. This EAR outlines the preliminary environmental offset summary based on the current development layout.

It is considered that the native vegetation and maintained understory within the Site support limited ecological values within the context of the locality, particularly considering the isolated / fragmented context of the Site under the State approved Logan Reserve Plan. The proposed development is generally aligned with the planning intent of the Site given its Emerging Community zoning and consistency with the existing surrounding developments.

Attachment 1



Baycrown - Logan Reserve

Legend

Attachment 1 - Locality

- Proposed Lot 2003
- Cadastre
- Watercourses

28 South Project Ref: 2021-032

Data Sources: Nearmap Aerial Imagery (Nearmap November 2020); Digital Cadastre Database (Dept. Natural Resources and Mines, 2020); Baseline Roads (DNRME 2020); Waterways (DNRME 2019).



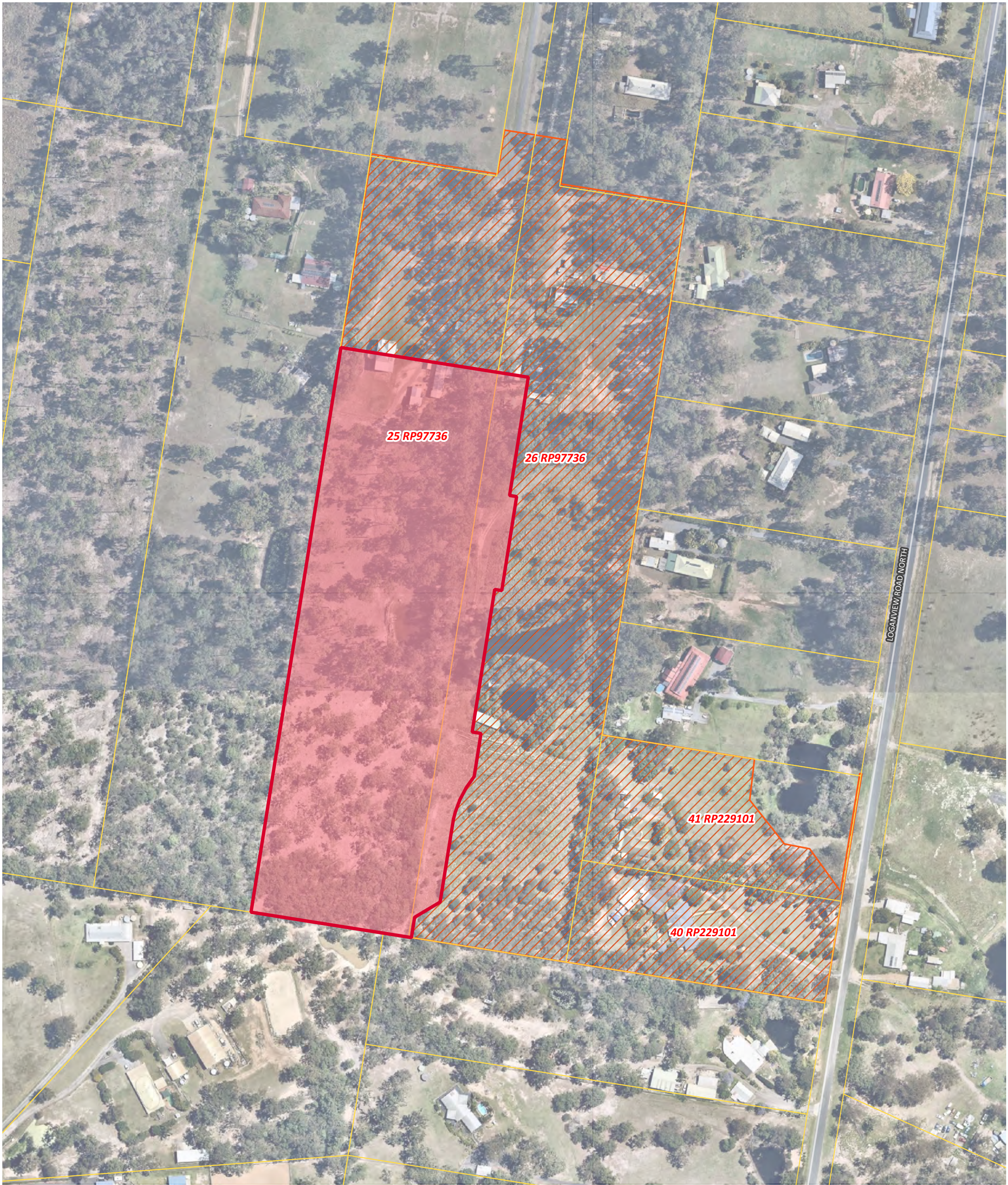
Issue Date	Dwg No.	Author
29 March 2021	2021-032-001	CT
Approved		Revision Note
MT		

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Attachment 2



Baycrown - Logan Reserve

Legend

Attachment 2 - Site Context

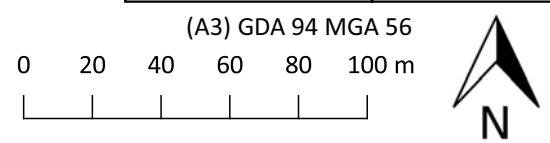
- Cadastre
- Proposed Lot 2003
- Development Footprint of Approval Application Over Neighbouring Lots

28 South Project Ref: 2021-032

Data Sources: Nearmap Aerial Imagery (Nearmap November 2020); Digital Cadastre Database (Dept. Natural Resources and Mines, 2020); Baseline Roads (DNRME 2020); Waterways (DNRME 2019).



Issue Date	Dwg No.	Author
29 March 2021	2021-032-002	CT
Approved		Revision Note
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LEGEND

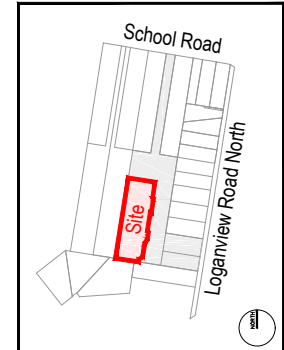
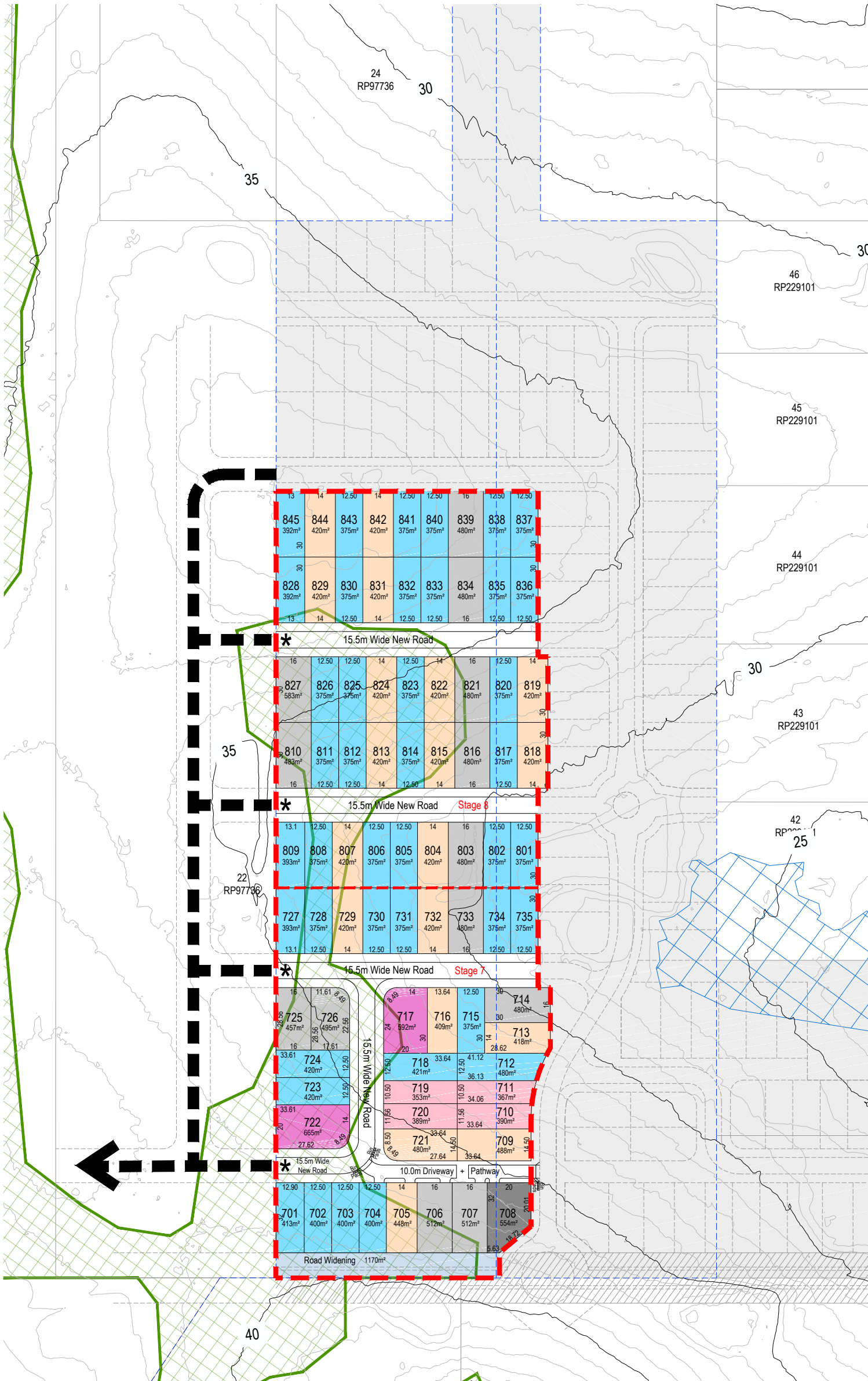
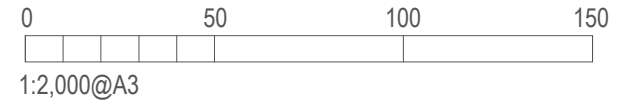
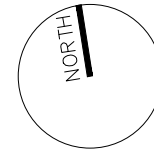
Application boundary	
Existing lot boundaries Lot 25 + 26 RP97736	
Existing application 25 + 26 RP97736 and 40 + 41 RP229101	
Core Koala Habitat Area + Category B on the regulated vegetation management map (TRACED) (subject to detail investigation)	
OM-05.00 Flood hazard trigger- Flooding and inundation areas (TRACED) (subject to further investigation)	
Temporary turnaround subject to detail design	
Indicative future road network	

YIELD SUMMARY

Lot Frontage	Number of Lots	%
10.00-12.49m	4	5.0%
12.50-13.99m	41	51.3%
14.00-15.99m	19	23.8%
16.00-17.99m	13	16.3%
≥18.0m	1	1.3%
Duplex Lots	2	2.5%
TOTAL	80	100%

LOTS BY STAGE

Stage 7	45
Stage 8	35
Total Stage	80



KEY DIAGRAM (nts)

CLIENT
Baycrown Pty Ltd

PROJECT
Plan of Subdivision
115 + 117 School Road,
Logan Reserve
Part 25 + 26 RP97736

AMENDMENTS:	DATE:
A Original	28.07.2021
B	
C	
D	
E	
F	
G	
H	
DESIGNED: KS	DATE: 28.07.2021
DRAWN: KS	DATE: 28.07.2021
SCALE: 1:2,000 @ A3	1 of 1

IMPORTANT NOTES:
This note is an integral part of this plan. This plan may not be reproduced without this note.
This plan was prepared for a Development Application. This plan should not be used for any other purposes.
This plan remains subject to, but not limited to, authority approval, detail design and final survey.
The total number of lots shown on this plan is approximate only.
No relevance should be placed on the information on this plan for any financial dealings involving the land.
Copyright © PEAK URBAN Pty Ltd (28.07.2021)

Cadastral Boundaries:
DCDB © State of Queensland (Department of Natural Resources and Mines) 2020

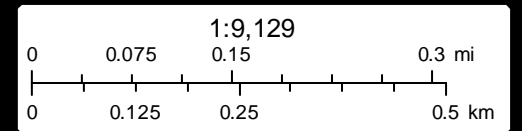
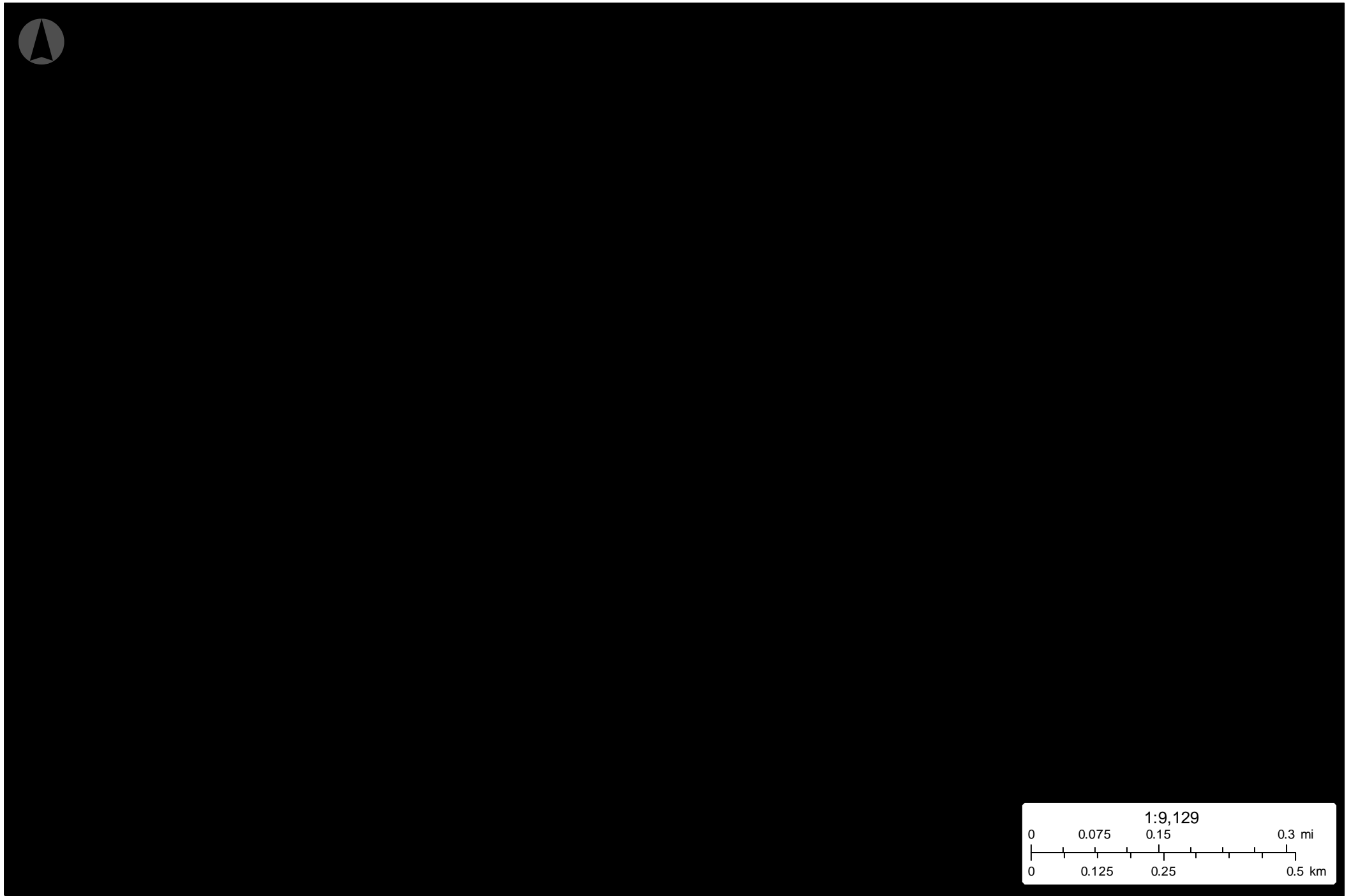
Koala Mapping:
State of Queensland (Department of Environment and Science) 2020



DRAWING NUMBER:
20-0136-PS3

ISSUE:
A

Attachment 3



Attachment 4



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.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 26/03/21 16:53:05

[Summary](#)

[Details](#)

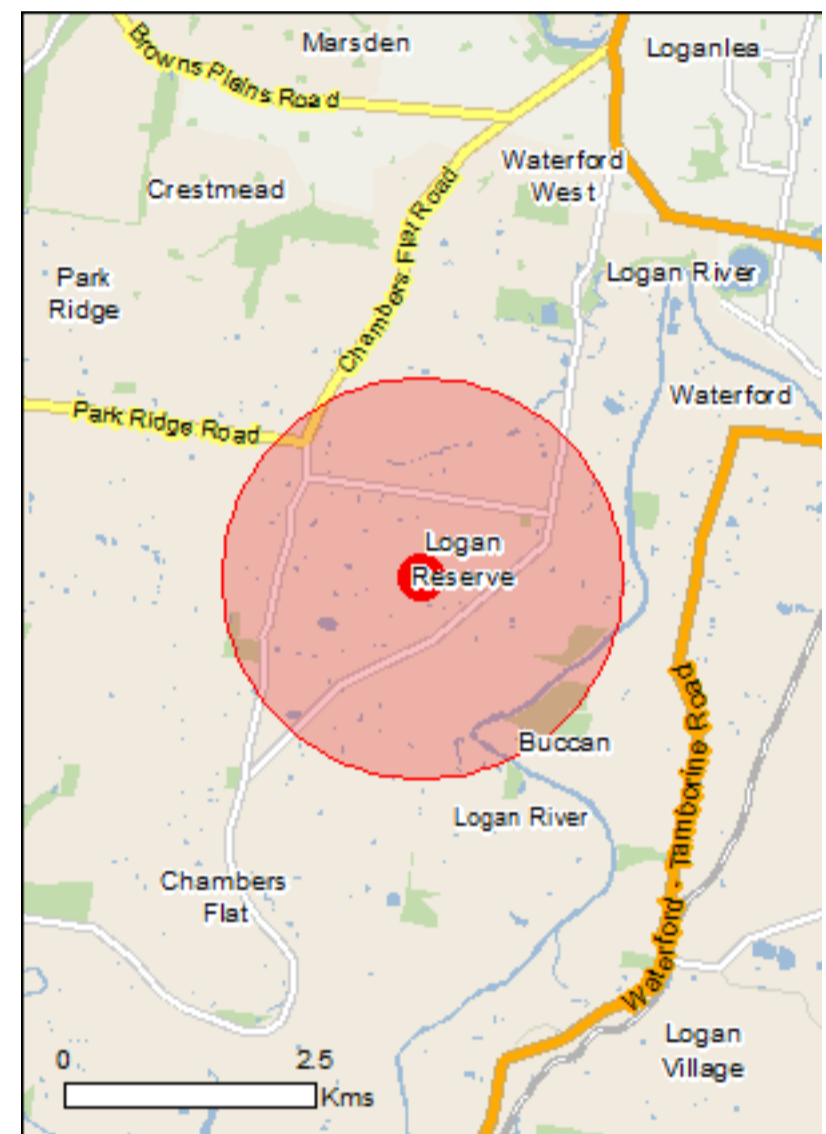
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

[Coordinates](#)

Buffer: 2.0Km



Summary

Matters of National Environmental 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:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	39
Listed Migratory Species:	16

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 environment anywhere.

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 Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	23
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	37
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Moreton bay	10 - 20km upstream

Listed Threatened Ecological Communities

 [Resource Information]

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.

Name	Status	Type of Presence
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community may occur within area
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community may occur within area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community may occur within area

Listed Threatened Species

 [Resource Information]

Name	Status	Type of Presence
Birds		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Species or species habitat known to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Erythrorchis 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

Name	Status	Type of Presence
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	habitat likely to occur within area Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
Thinornis cucullatus cucullatus Hooded Plover (eastern), Eastern Hooded Plover [90381]	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
Fish		
Maccullochella mariensis Mary River Cod [83806]	Endangered	Translocated population known to occur within area
Frogs		
Mixophyes fleayi Fleay's Frog [25960]	Endangered	Species or species habitat may occur within area
Insects		
Argynnis hyperbius inconstans Australian Fritillary [88056]	Critically Endangered	Species or species habitat may occur within area
Mammals		
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
Petauroides volans Greater Glider [254]	Vulnerable	Species or species habitat likely to 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]	Vulnerable	Species or species habitat known to occur within area
Potorous tridactylus tridactylus Long-nosed Potoroo (SE Mainland) [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
Plants		
Arthraxon hispidus Hairy-joint Grass [9338]	Vulnerable	Species or species habitat may occur within area
Bosistoia transversa Three-leaved Bosistoia, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area

Name	Status	Type of Presence
Cryptocarya foetida Stinking Cryptocarya, Stinking Laurel [11976]	Vulnerable	Species or species habitat may occur within area
Cupaniopsis shirleyana Wedge-leaf Tuckerroo [3205]	Vulnerable	Species or species habitat may occur within area
Diploglottis campbellii Small-leaved Tamarind [21484]	Endangered	Species or species habitat may occur within area
Gossia gonoclada Angle-stemmed Myrtle [78866]	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 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
Reptiles		
Coeranoscincus reticulatus Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat likely to occur within area
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
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

Name	Threatened	Type of Presence
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 known to occur within area
Monarcha trivirgatus Spectacled Monarch [610]		Species or species habitat likely to occur within area
Motacilla flava Yellow Wagtail [644]		Species or species habitat may 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 known to occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat likely to 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
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to 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](#)]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat likely to occur within area
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata		
Sharp-tailed Sandpiper [874]		Species or species habitat likely to 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
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat known to 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
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus		
Spectacled Monarch [610]		Species or species habitat likely to occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
Myiagra cyanoleuca Satin Flycatcher [612]		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
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area
Thinornis rubricollis rubricollis Hooded Plover (eastern) [66726]	Vulnerable*	Species or species habitat may occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Extra Information

Invasive Species

[[Resource Information](#)]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis European Goldfinch [403]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur

Name	Status	Type of Presence within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat known to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Alternanthera philoxeroides Alligator Weed [11620]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171] Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Cryptostegia grandiflora Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913] Eichhornia crassipes Water Hyacinth, Water Orchid, Nile Lily [13466]		Species or species habitat likely to occur within area
Hymenachne amplexicaulis Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]		Species or species habitat likely to occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892] Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Sagittaria platyphylla Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Senecio madagascariensis Fireweed, Madagascar Ragwort, Madagascar Groundsel [2624]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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.

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

Where very little information is available for 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 reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-27.71907 153.10369

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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Department of Agriculture Water and the Environment

GPO Box 858

Canberra City ACT 2601 Australia

+61 2 6274 1111

Attachment 5



Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Status: Rare and threatened species
Records: All
Date: Since 1980
Latitude: -27.7190
Longitude: 153.1036
Distance: 2
Email: mitch@28south.com.au
Date submitted: Friday 26 Mar 2021 15:53:20
Date extracted: Friday 26 Mar 2021 16:00:03

The number of records retrieved = 5

Disclaimer

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

No statements, representations or warranties are made about the accuracy or completeness of this information. The State of Queensland disclaims all responsibility for this information and all liability (including without limitation, liability in negligence) for all expenses, losses, damages and costs you may incur as a result of the information being inaccurate or incomplete in any way for any reason.

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail		V	V	1
animals	birds	Cacatuidae	<i>Calyptorhynchus lathami lathami</i>	glossy black-cockatoo (eastern)		V		1
animals	birds	Meliphagidae	<i>Anthochaera phrygia</i>	regent honeyeater		CR	CE	3
animals	birds	Psittacidae	<i>Lathamus discolor</i>	swift parrot		E	CE	1
animals	mammals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala		V	V	21

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ().

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*. The values of EPBC are Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Extinct in the Wild (XW) and Vulnerable (V).

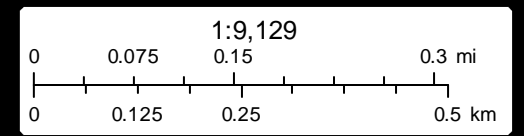
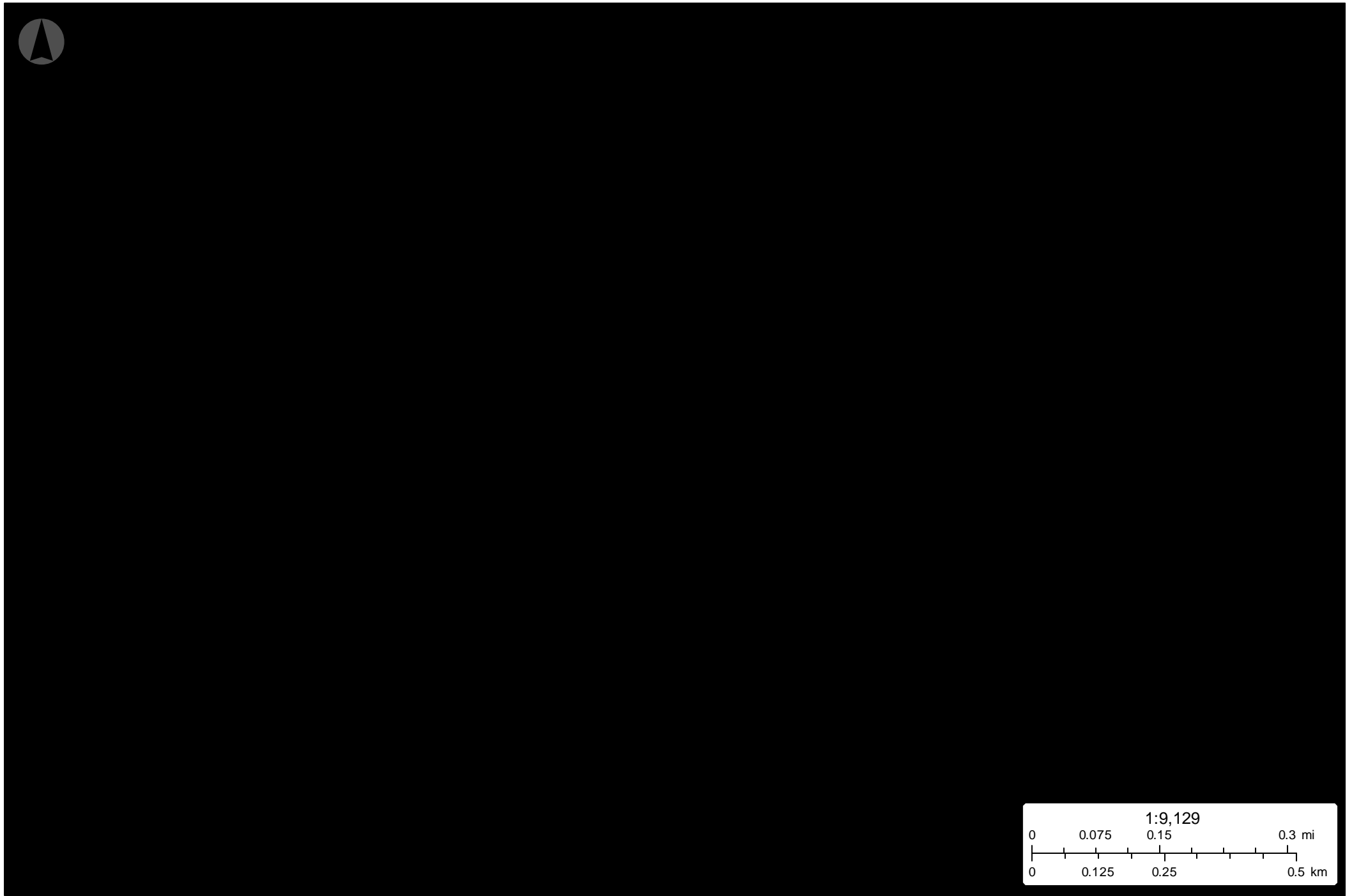
Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).

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

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

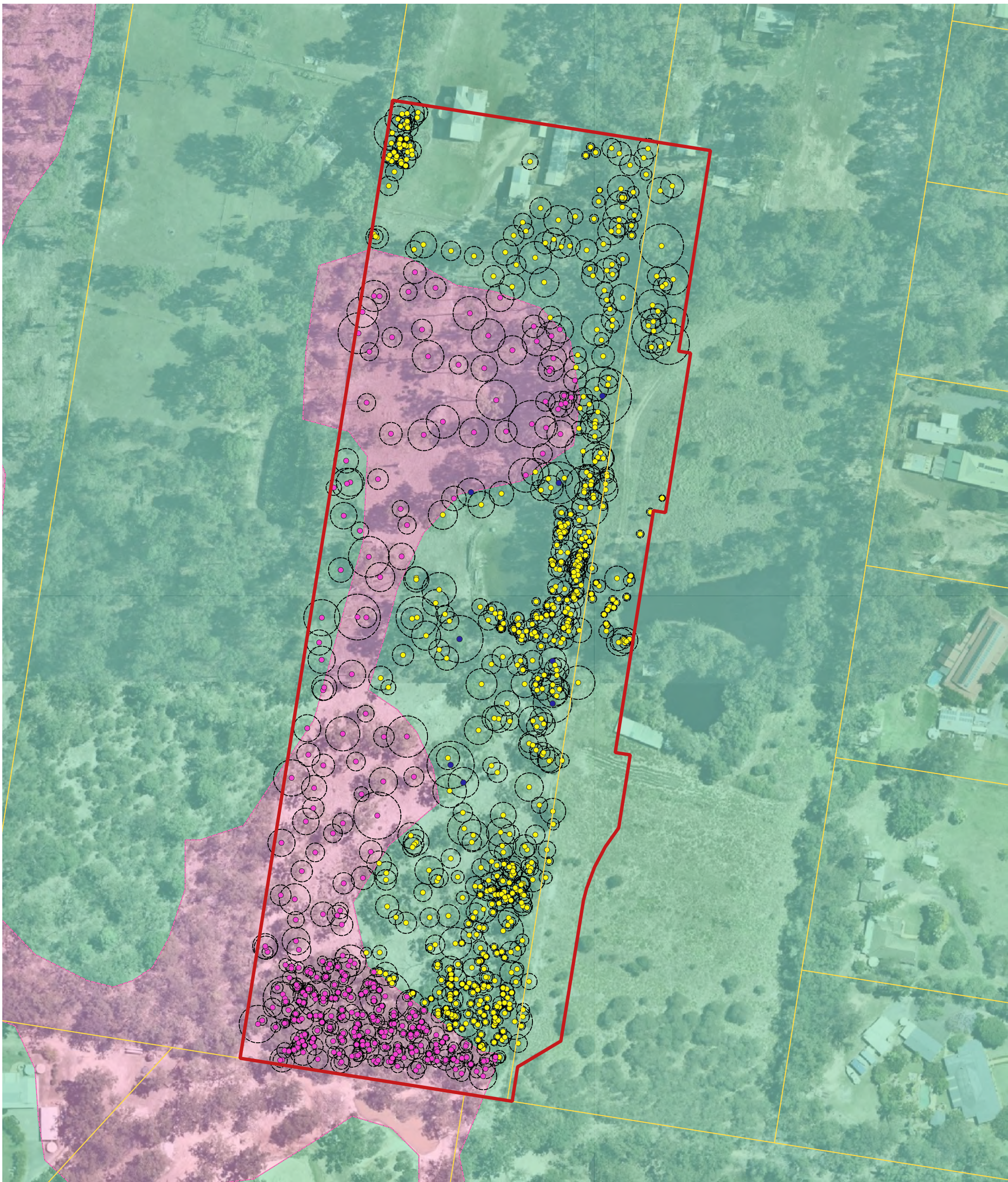
Attachment 6

Attachment 7





Attachment 8



Baycrown - Logan Reserve

Legend

Attachment 7- Tree Plan

28 South Project Ref: 2021-032

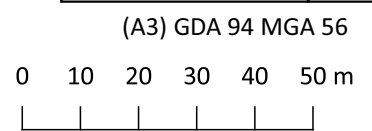
Data Sources: Nearmap Aerial Imagery (Nearmap November 2020); Digital Cadastre Database (Dept. Natural Resources and Mines, 2020); Baseline Roads (DNRME 2020); Waterways (DNRME 2019).



- Proposed Lot 2003
- Cadastre
- Primary Vegetation Management Area
- Secondary Vegetation Management Area

- Tree Protection Zones
- Trees in Primary Vegetation Management Area
- Trees in Secondary Vegetation Management Area**
- Native Habitat Tree
- Native Tree

Issue Date	Dwg No.	Author
29 March 2021	2021-032-008	CT
Approved		Revision Note
MT		



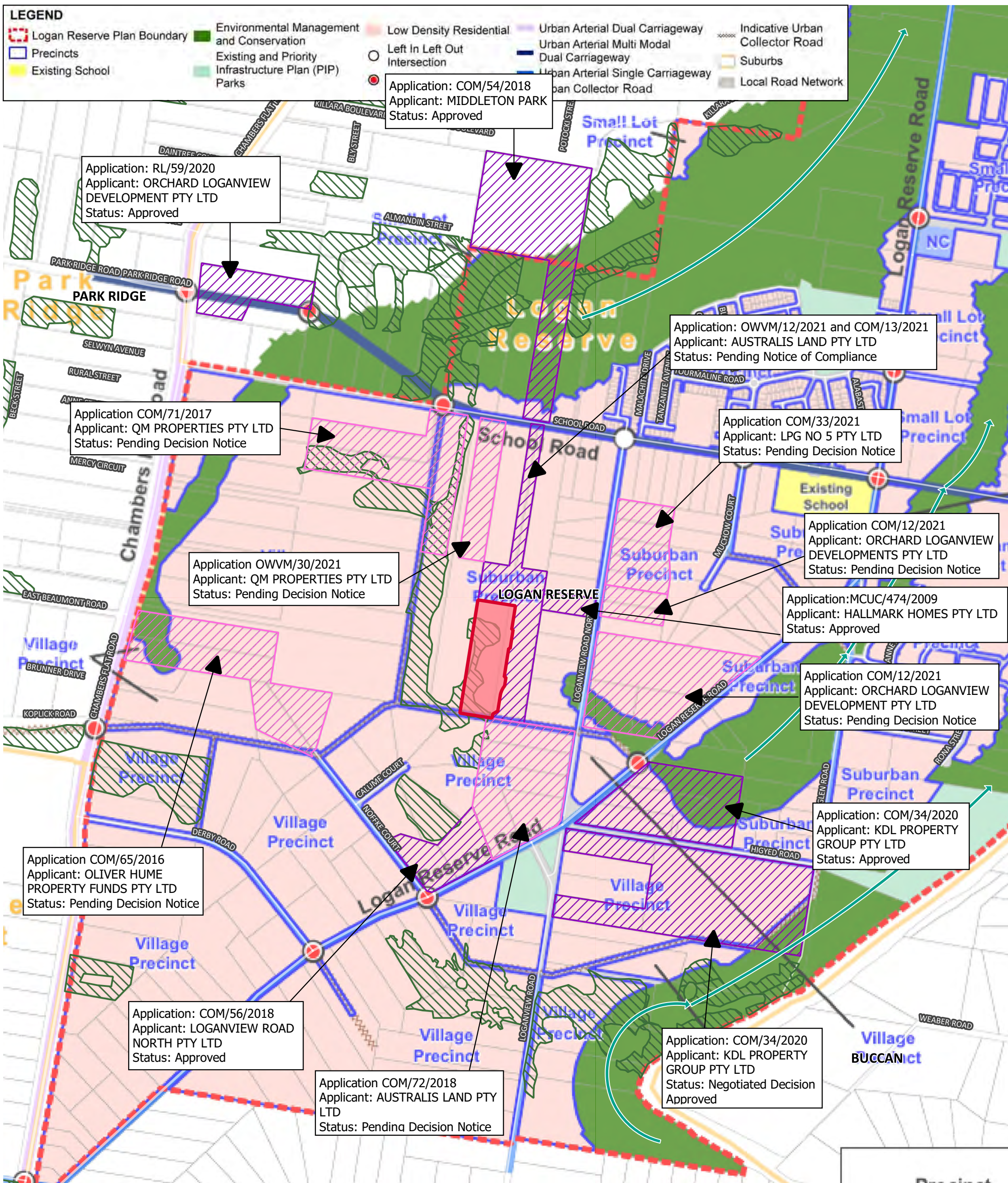
Attachment 9

Flora Species List

Scientific Name	Common Name	EPBC Act 1999	NC Act 1992
<i>Acacia disparrima</i> subsp. <i>disparrima</i>	Hickory Wattle	NL	LC
<i>Acacia leiocalyx</i>		NL	LC
<i>Acacia penninervis</i>		NL	LC
<i>Allocasuarina littoralis</i>	Black She-oak	NL	LC
<i>Alphitonia excelsa</i>	Red Ash	NL	LC
<i>Axonopus compressus</i>	Broad-leaved Carpet Grass	NL	*
<i>Bidens pilosa</i>	Cobbler's Pegs	NL	*
<i>Cassytha filiformis</i>	Dodder Laurel	NL	LC
<i>Corymbia citriodora</i> subsp. <i>variegata</i>	Spotted Gum	NL	LC
<i>Corymbia intermedia</i>	Pink Bloodwood	NL	LC
<i>Crassocephalum crepidioides</i>	Thickhead	NL	*
<i>Cyanthillium cinereum</i>		NL	LC
<i>Cyperus polystachyos</i>	Bunchy Sedge	NL	LC
<i>Desmodium rhytidophyllum</i>	Hairy Trefoil	NL	LC
<i>Dianella caerulea</i>	Blueberry Flax Lily	NL	LC
<i>Dipodium variegatum</i>	Hyacinth Orchid	NL	LC
<i>Entolasia stricta</i>	Wiry Panic	NL	LC
<i>Eragrostis brownii</i>	Brown's Lovegrass	NL	LC
<i>Eucalyptus acmenoides</i>	White Mahogany	NL	LC
<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany	NL	LC
<i>Eucalyptus racemosa</i>	Scribbly Gum	NL	LC
<i>Eucalyptus seeana</i>	Narrow-leaved Bluegum	NL	LC
<i>Eustrephus latifolius</i>	Wombat Berry	NL	LC
<i>Fimbristylis dichotoma</i>	ncn	NL	LC
<i>Glycine clandestina</i>		NL	LC
<i>Glycine tabacina</i>	Glycine Pea	NL	LC
<i>Gomphocarpus physocarpus</i>	Balloon Cotton Bush	NL	*
<i>Goodenia rotundifolia</i>	Trailing Goodenia	NL	LC
<i>Hibbertia vestita</i>		NL	LC

Scientific Name	Common Name	EPBC Act 1999	NC Act 1992
<i>Imperata cylindrica</i>	Blady Grass	NL	LC
<i>Lantana camara</i>	Common Lantana	NL	*(RI)
<i>Laxmannia gracilis</i>	Slender Wire Lily	NL	LC
<i>Lepidosperma laterale</i>		NL	LC
<i>Leptospermum polygalifolium</i>	Wild May	NL	LC
<i>Lobelia purpurascens</i>	White Root	NL	LC
<i>Lomandra filiformis</i>		NL	LC
<i>Lomandra laxa</i>		NL	LC
<i>Lomandra longifolia</i>	Spiny-headed Mat Rush	NL	LC
<i>Lomandra multiflora</i>	Many-headed Mat Rush	NL	LC
<i>Lophostemon confertus</i>	Brush Box	NL	LC
<i>Lophostemon suaveolens</i>	Swamp Box	NL	LC
<i>Macaranga tanarius</i>	Macaranga	NL	LC
<i>Melinis repens</i>	Red Natal Grass	NL	*
<i>Microlaena stipoides</i>	Weeping Meadow Grass	NL	LC
<i>Oplismenus aemulus</i>	Creeping Beard Grass	NL	LC
<i>Paspalidium distans</i>	Shotgrass	NL	LC
<i>Patersonia sericea</i>	Native Iris	NL	LC
<i>Physalis angulata</i>		NL	*
<i>Pomax umbellata</i>	Pomax	NL	LC
<i>Solanum chrysotrichum</i>		NL	*
<i>Solanum mauritianum</i>		NL	*
<i>Themeda triandra</i>		NL	LC
<i>Velleia paradoxa</i>		NL	LC
<i>Wahlenbergia gracilis</i>		NL	LC

Attachment 10



Baycrown - Logan Reserve

Attachment 10 - Development Mapping

28 South Project Ref: 2021-032

Data Sources: Nearmap Aerial Imagery (Nearmap November 2020); Digital Cadastre Database (Dept. Natural Resources and Mines, 2020); Baseline Roads (DNRME 2020); Waterways (DNRME 2019).

28°S ENVIRONMENTAL

Legend

- Proposed Lot 2003
- Development Approved
- Development Proposed
- Core Koala Habitat Area
- 2

Issue Date	Dwg No.	Author
29 March 2021	2021-032-010	CT
Approved		Revision Note
MT		

(A3) GDA 94 MGA 56

100 0 100 200 m

Attachment 11

Attachment 12

Your Environmental Offset Estimate Report

IMPORTANT NOTICE

STATE GOVERNMENT KOALA PROTECTION AMENDMENTS

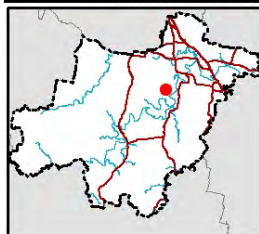
On 7 February 2020 the Queensland Government introduced the [Nature Conservation and Other Legislation \(Koala Protection\) Amendment Regulation 2020](#). This major legislative change reforms the way the Planning Regulation 2017 manages and mitigates the impact of development on koalas and koala habitat. It changes the process of assessing any proposed vegetation clearing involving mapped koala habitat and impacts the offset estimations in this report.

If you are proposing development that requires the clearing of vegetation, please contact Council to obtain further advice on (07) 3412 3412 or via email: Council@logan.qld.gov.au. Do not rely solely on the offset estimation report below.

For more information on this reform including copies of koala habitat mapping, please contact the Queensland Department of Environment and Science on 13GOV (13468) or email info@des.qld.gov.au or refer to the information on their [website](#).

Proposed Clearing Site: The area(s) you submitted online using the [Logan PD Hub](#) is shown in the Proposed Clearing Site Map below.

Request Received: 07/09/2021 12:01 PM



Legend
 Proposed Clearing Site

Map Projection
GDA 1994
MGA Zone 56

0 20 40 Meters

Environmental Offsets

Environmental offsets are used in the Logan Planning Scheme 2015 as a mitigation measure when unavoidable clearing of protected native vegetation is required as a result of approved development.

An environmental offset is an action such as planting trees or a payment made by the property owner to compensate for the environmental impacts of their development – usually associated

with clearing [protected vegetation](#).

The Logan Planning Scheme 2015 (in [Planning Scheme Policy 3 - Environmental management](#)) identifies three types of environmental offsets:

- restoration offsets;
- proponent driven offsets;
- financial settlement offsets.

This report only addresses the costs of a financial settlement offset. You may also like to consider a restoration offset or a proponent driven offset. To find out more please visit logan.qld.gov.au/vegetationprotection.

Financial settlement offsets paid to Council are used exclusively to purchase and rehabilitate degraded land in strategic locations to achieve benefits such as:

- ✓ replacing environmental values lost during development (e.g. protected vegetation and wildlife habitat areas);
- ✓ increasing and improving koala and other significant species habitat;
- ✓ connecting isolated areas of vegetation within biodiversity corridors;
- ✓ supporting environmental initiatives to restore the health of our [rivers and wetlands](#);
- ✓ increasing our City's greenspaces and eco-friendly recreation areas.

Important Information about this Estimate Report

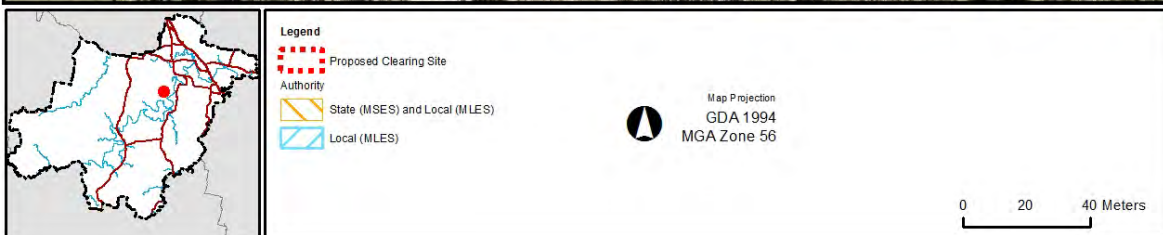
This report:

- is a tool to assist with your planning and development enquiries and does not form part of the Logan Planning Scheme 2015;
- provides an estimate only and does not represent a formal quotation or an invoice for payment;
- is current only at the date of generation, and is subject to change - a new estimate should be obtained prior to making decisions or lodging development applications;
- provides general information only, of which Council does not warrant the accuracy, completeness or currency. Council accepts no responsibility for, or in connection with, any loss or damage suffered as a result of any inaccuracies, errors or omissions, or your reliance on this information.

Your Environmental Offset Map

The proposed clearing site submitted to Council is shown and numbered in red. The areas subject to environmental offsets are shown in orange or blue diagonal lines.

LCC_LOGAN_PD_HUB_EOE_20210907_020000241_X522



Further information about the areas identified as being subject to environmental offsets is enclosed in the [Proposed Clearing Site – Ecological Significance and Values Map](#), which contains detailed maps from [Figure 3.1.10.1 - Ecological Significance of the Logan Planning Scheme 2015](#). This information is used to determine the ecological value of the areas that are a Matter of Local Environmental Significance (MLES) which are subject to an environmental offset (shown in blue on the map above).

Financial Settlement Offset

The estimated financial settlement offset amount, shown in Table 1 below, is determined from the ecological values of the proposed clearing site, and is calculated according to section 3.1.9.3 of [Planning Scheme Policy 3 – Environmental management](#).

Please note that according to the [Biodiversity Areas Overlay Map OM - 02.04](#) your proposed Clearing Site includes a Matter of State Environmental Significance (MSES).

The Queensland Government has separate regulatory requirements for MSES. This is regulated by the State Development Assessment Provisions. The Queensland State Government is responsible for managing MSES and you will need to contact the Department of Environment and Heritage Protection (13 74 68) regarding your proposed Clearing Site.

Where the native vegetation is identified as both as a MLES and as a MSES and no offset is required by the Queensland Government for the native vegetation identified as a MSES, development must:

- be located to avoid the need to clear the native vegetation; or
- achieve a net gain of native vegetation.

Table 1: Estimate of financial settlement offset amount.
(Ref:LCC_LOGAN_PD_HUB_EOE_20210907_020000241_X522)

<i>Proposed Clearing Site Part</i>	Area (square metres)	Ecological Index*	Estimated Offset Amount
<i>1: MSES-MLES</i>	12,683.0	18.978809	\$207,179.22
<i>1: MLES</i>	2,160.3	18.964964	\$35,263.73
<i>Total</i>	14,843.3	18.976794	\$242,442.95

*The "Ecological Index" is an average value representing the ecological significance of the area. The higher the ecological index, the higher the ecological significance of the area - therefore attracting a higher financial settlement offset amount. Council seeks to encourage development in areas with a lower ecological significance to minimise environmental impacts.

Primary and Secondary Vegetation Management Areas

The Vegetation Management Area includes Primary and Secondary Vegetation Management Areas. If the area identified as being subject to an environment offset contains single or scattered trees in the Secondary Vegetation Management Area and the density of the trees is less than one tree per 10m², Council may accept an offset based on a count of native trees and native habitat trees (see Table 2 below). This may be less expensive than the estimate of the financial settlement offset amount presented in this report.

Native trees or native habitat trees may also be present in the proposed clearing site that have not been identified as subject to an environmental offset. These trees will incur an additional offset cost (see Table 2 below).

Table 2: Estimated cost of individual trees as part of a financial settlement offset (where appropriate).

Tree	Cost per tree
Native Tree	\$128.29
Native Habitat Tree	\$256.57

For more information about these trees and applicable fees go to:
logan.qld.gov.au/vegetationprotection

Reducing your offset amount

As a potentially more affordable alternative to paying a financial settlement offset, you may consider a restoration offset, which includes planting new trees on an alternative part of the property. You can also reduce the estimated offset amount by:



- Redesigning or moving the proposed clearing site to another location with fewer trees or a lower ecological significance, so that you retain as many ecological values as possible;
- Avoiding development in those areas identified as Biodiversity and Koala Corridors or Waterways and Wetlands buffers shown in the enclosed [Proposed Clearing Site – Ecological Significance and Values Map](#).

Exemptions from Environmental Offsets

You may be [exempt](#) from an environmental offsets in Logan if you are:

- constructing a new dwelling house or dual occupancy on an existing lot where no more than 4,000m² of native vegetation is cleared;
- clearing vegetation which already requires an offset by the State or Federal Government;
- clearing vegetation which is exempt under the [Biodiversity Areas Overlay Code](#) of the Logan Planning Scheme 2015.

More Information

You can learn more about environmental offsets on our [Vegetation Protection webpage](#), or by contacting Council on the details below.

Phone:	(07) 3412 3412
Email:	environment@logan.qld.gov.au
Online:	logan.qld.gov.au/vegetationprotection
In person:	Logan City Council - City Administration Centre 150 Wembley Road Logan Central QLD 4114

Properties affected

The proposed clearing site(s) drawn in the Logan PD Hub affects the following property(ies):

115 School Road LOGAN RESERVE QLD 4133, RP97736/25, 287503

Note: "(Alt)" indicates an alternative street address for a listed property, noting the plan/lot number and property key will be the same.

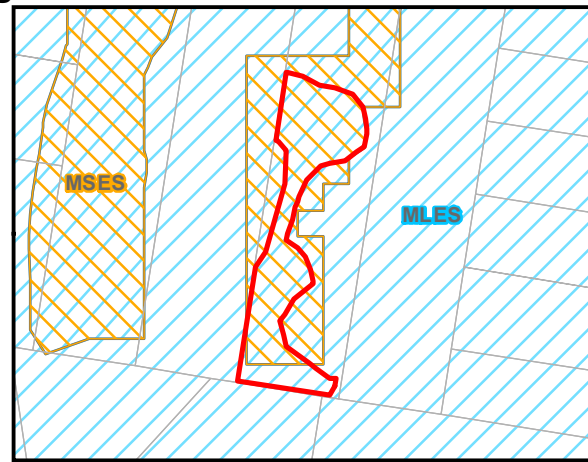
**City of Logan - Planning and Development
Proposed Clearing Site Ecological Significance and Values Maps**



Ecological Significance



Vegetation Management Area



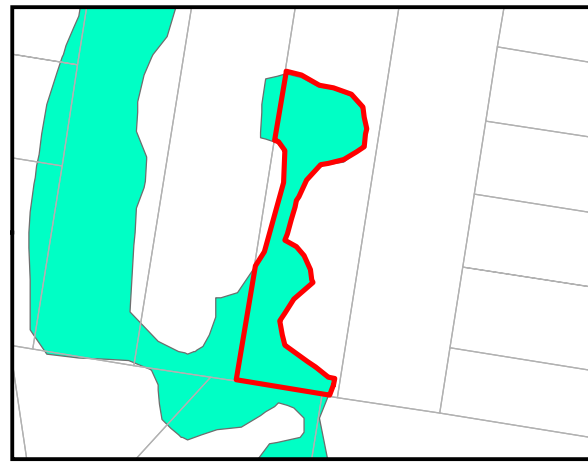
MSES and MLES



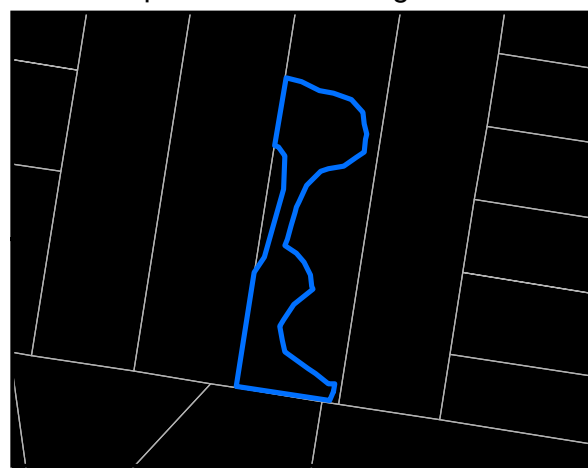
Map 1 - Urban vs Rural



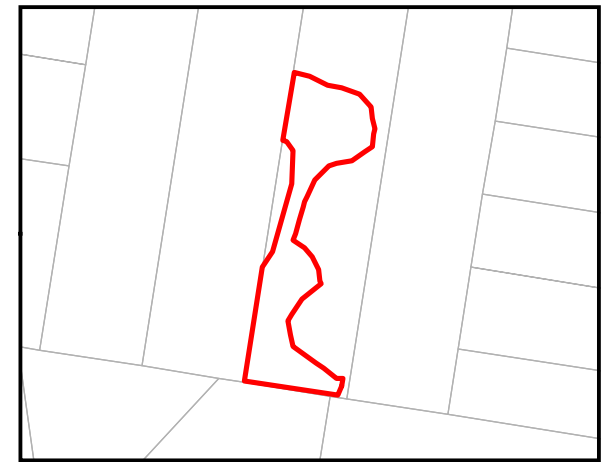
Map 3 - Regrowth and Tree Cover



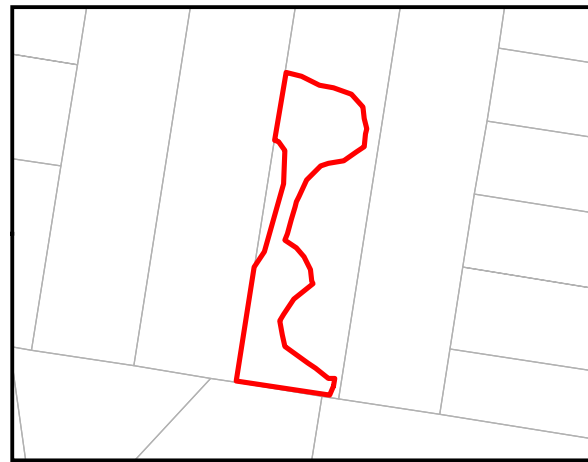
Map 2 - Remnant Vegetation



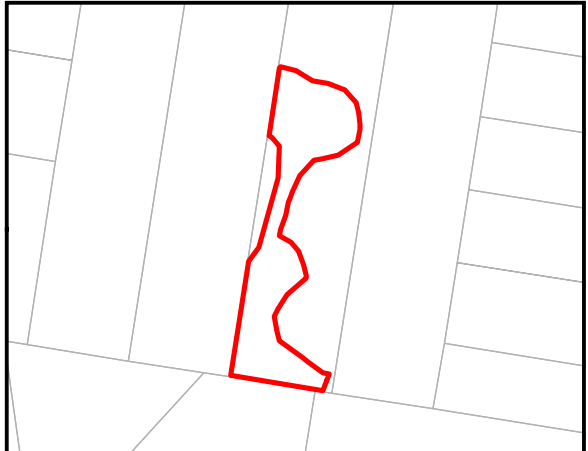
Map 4 - Koala Habitat



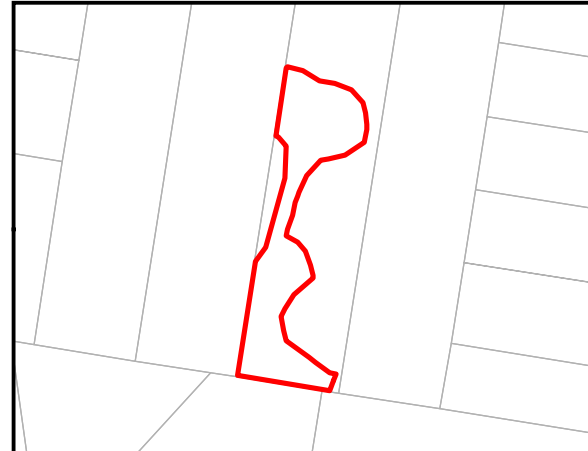
Map 5 - Vegetation Complex



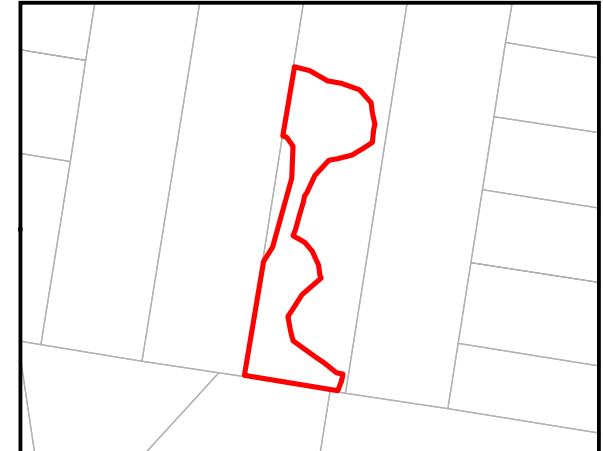
Map 6 - Species Complex



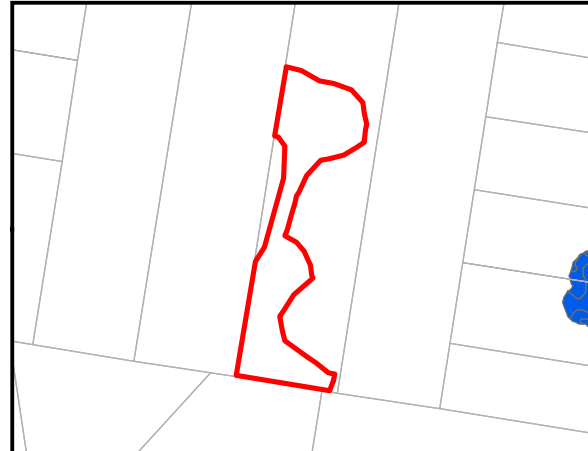
Map 7 - Conservation Buffers



Map 8 - Locally Significant Vegetation



Map 9 - Regional and Koala Corridors



Map 10 - Waterways and Wetlands

LEGEND

- Ecological Significance**
 - >0 and <=12
 - >12 and <=22
 - >22 and <=32
 - >32 and <=62
- Map 1 - Urban vs Rural**
 - Rural (3)
 - Urban (1)
- Map 2 - Remnant Vegetation**
 - Endangered (10)
 - Of concern (9)
 - Least concern (8)
- Map 3 - Regrowth and Tree Cover**
 - Tree cover - Endangered (7)
 - Tree cover - Least concern (5)
- Map 4 - Koala Habitat**
 - Koala habitat 1 (8)
 - Koala habitat 2 (3)
- Map 5 - Vegetation Complex**
 - Vegetation complex (3)
- Map 6 - Species Complex**
 - Very High rank from Criteria A EVR buffers
 - OR
 - (9) Core Habitat for Wallum Froglets overlapping Very High or High EVR buffer
 - High rank from Criteria A EVR buffers
 - OR
 - (7) Core Habitat for Wallum Froglets not overlapping Very High or High EVR buffer
 - OR
 - (4) Criteria I or H
- Map 7 - Conservation Buffers**
 - Conservation Buffer (3)
- Map 8 - Locally Significant Vegetation**
 - Locally Significant Vegetation (9)
 - Melaleuca irbyana 100m hydrology protection buffer zone (3)
- Map 9 - Ecological Corridors**
 - Regional Corridors (7)
 - Koala Corridor (7)
- Map 10 - Waterways and Wetlands**
 - Map 10 - Waterways and Wetlands (10)

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Map Projection : Universal Transverse Mercator
Horizontal Datum : Geocentric Datum of Australia 1994
Grid : Map Grid of Australia, Zone 56

