



CONTEXT PLAN AREA STRATEGY

YARRABILBA Town Centre & Surrounds

ENDORSED

Date: 31 Oct 2023

MEDQ



Queensland
Government

Document Information

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Reference: PR124141
Document Title: Context Plan Area Strategy – Town Centre and Surrounds
Contact: Lyndelle Seymour / Gavin Edwards (RPS AAP Consulting Pty Ltd)

Version History

Version	Date	Purpose	Author	Reviewer	Approval Date
1	24.4.23	Lodgement – Compliance Assessment	LS	GE	24 April 2023
2	25.8.23	Further Issues Response	LS	JD	29 August 2023
3	23.10.23	Further Issues Response	LS	GE	24 October 2023

Prepared in partnership with:

Lendlease	RPS
KN Group	Natura Pacific
Design Flow	Stantec
SLR	BPS
Think Economics	



TOWN CENTRE & SURROUNDS OVERVIEW

Background

The submission of this Context Plan Area Strategy (CPAS) follows the recent adoption of the amendments to the Yarrabilba PDA Development Scheme, where the footprint for the Town Centre and Surrounds was reconfigured to reflect ongoing master planning for Yarrabilba and recent approvals.

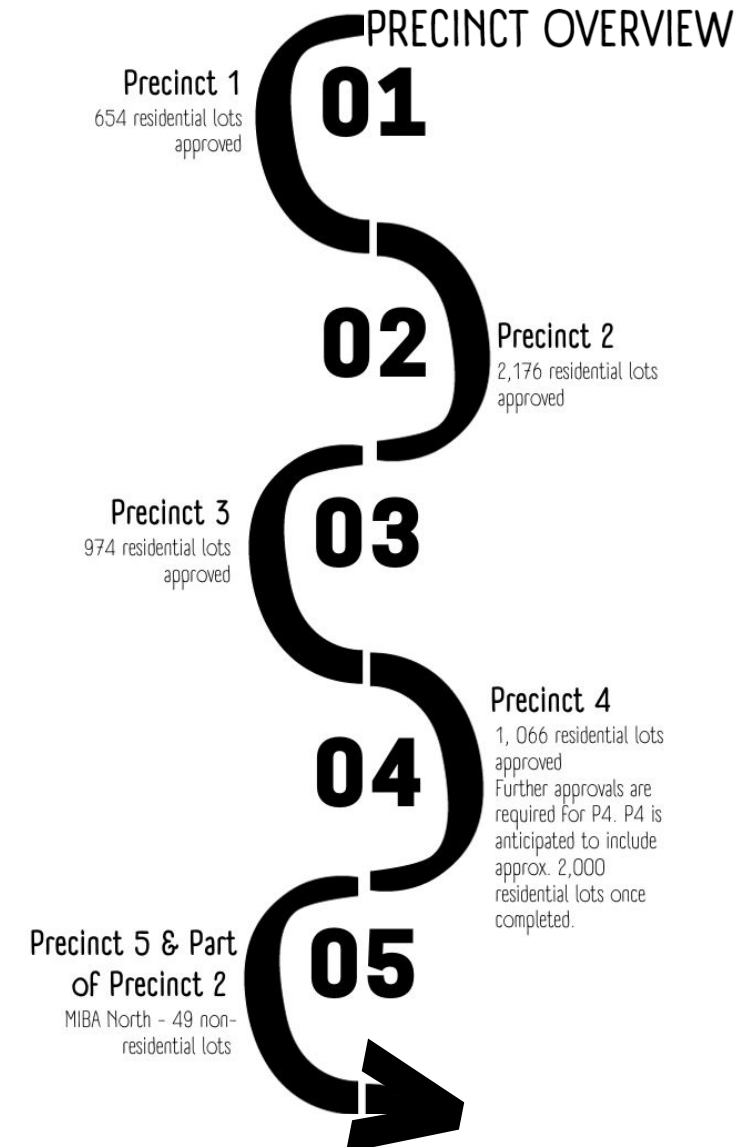
The preparation and lodgement of the Town Centre and Surrounds CPAS represents a key milestone for Yarrabilba, demonstrating where Yarrabilba is in its development cycle, reaching a maturity in population and the consequential need for town centre offerings for the current and future Yarrabilba community.

The delivery of a Town Centre and the opportunities it creates is unique, and Lendlease takes the responsibility for its planning and creation incredibly seriously. The lodgement of the CPAS is the first step in the planning approval framework for Yarrabilba, and the documentation in support of the CPAS evidences the vision and outcomes desired for this important place making precinct at Yarrabilba.

The Town Centre and Surrounds CPAS captures an area in the Yarrabilba Priority Development Area (PDA) located south of the powerline easement between the endorsed Precinct 4 Context Plan and the Mixed Industry and Business Zone. The Town Centre East West Road, which provides the second vehicular connection to Yarrabilba from Waterford-Tamborine Road is currently being designed and forms a key element in the form and function of the Town Centre and surrounds. A location plan is included at Figure 1.

It covers an area of approximately 213 hectares and represents the next Precinct in Yarrabilba, referred to as Precinct 7.

The area is included in the Major Centre Core and Frame zones and will be developed with a relevant range of facilities, underpinned by civic, recreational, education, entertainment, health and commercial uses. The Core supports high density development up to 8 storeys in height, transitioning to up to 4 storeys on properties adjacent to residential neighborhoods in the Frame in accordance with the Yarrabilba PDA Development Scheme. Ultimately, the Town Centre and Surrounds is anticipated to provide approximately 215,000m² of Gross Leasable Area (GLA) to contribute towards self-containment within the PDA.



It is expected approximately 4,500 dwellings will be developed in the Town Centre and surrounds, providing homes for approximately 8,500 new residents. The Town Centre and Surrounds provides opportunities for a wide range of quality housing typologies and densities including medium rise, semi-attached, detached housing and retirement living.

Approximately 22 hectares of additional open space will contribute to Yarrabilba's extensive greenspace network; providing ongoing health benefits to the community. The greenspace network respects the natural environment and provides space for the local community to explore, relax, exercise and play.

Purpose

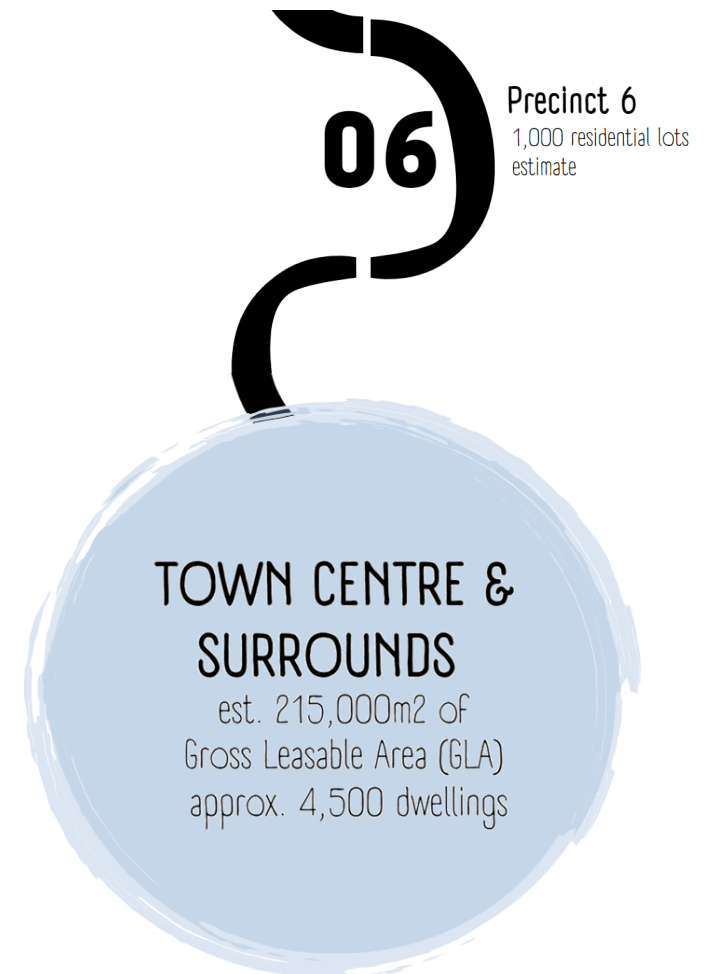
This Context Plan Area Strategy (CPAS) has been prepared in accordance with Condition 7 of the whole of site MCU (DEV2011/187) approval and requires compliance assessment against Condition 11 of the whole of site approval.

Context Plans

A series of plans have been developed as follows:

1. Location Plan
2. Indicative Context Plan
3. Yarrabilba Precinct Plan
4. Aerial Photo
5. Features Plan
6. Open Space and Linkages Plan

The Town Centre and Surrounds Context Plan is included as an indicative plan within this CPAS. A Context Plan will be submitted as part of the first permissible development for the area and will go through a separate advertising and endorsement process.



Masterplan

This CPAS is supported by the Yarrabilba Town Centre and Surrounds Masterplan.

Strict adherence with the Masterplan is not intended; rather it is an indicative framework and guiding document for the long-term planning and design outcomes sought for the Yarrabilba Town Centre and Surrounds area and has influenced the Context Planning for the Town Centre and Surrounds area.

Key elements of the Town Centre and Surrounds area as envisaged under the supporting masterplan include:

- **Land use designations** - Centre Core, Centre Frame and Industry and Business Transition
- **Community Infrastructure** – Opportunities to establish health, education and community facilities.
- **Open Space Network** – A major recreation park forms the central celebration space and multi-faceted desintation for civic life at Yarrabilba comprising three spaces: Town Square, The Domain and The Gateway.

The Town Centre and Surrounds will be surrounded by nature that incorporates local park nodes. Linear open space emellishes and provides connections to the broader landscape.

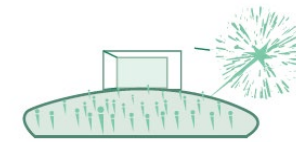
An Honour Walk provides meaningful connection to the site's history and role in global events and the commitment and sacrifice of those US soldiers who fought in WW II

- **Movement Network** – The movement network offers convenient access and supports active movement, transit, 'Main Street' focus and service access. Active movement is supported through principal cycle routes, radial connections out to surrounding neighbourhoods and the through an extensive linear open space network.

The accompanying **Masterplan (Appendix A)** includes varied road cross sections specific to the **Town Centre and Surrounds**. The specific cross sections for the Town Centre and Surrounds will provide for the specific transport movement and amenity needs of this area for pedestrian, vehicular and other active transport modes

Indicative land use areas, estimated non-residential gross lettable area and residential yield estimates are held in the Masterplan for the Town Centre and Surrounds.

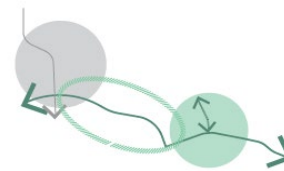
MASTER PLAN PRINCIPLES



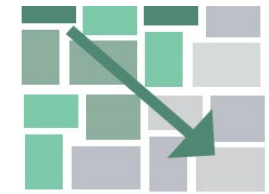
CENTRAL CELEBRATORY
OPEN SPACE & TOWN
CENTRE DOMAIN



A PEDESTRIAN & CYCLIST
FOCUSED CENTRE AND SAFE
ENVIRONMENT WITH GREEN
BOULEVARDS



A MIXED USE SPINE



OPPORTUNITIES FOR
THE EARLY & STAGED
RELEASE OF LAND



STREET NETWORK THAT
SUPPORTS A SENSE OF
ARRIVAL; THAT ALIGNS
WITH SCENIC VIEWS



A MAIN STREET THAT IS
MULTIFACETED

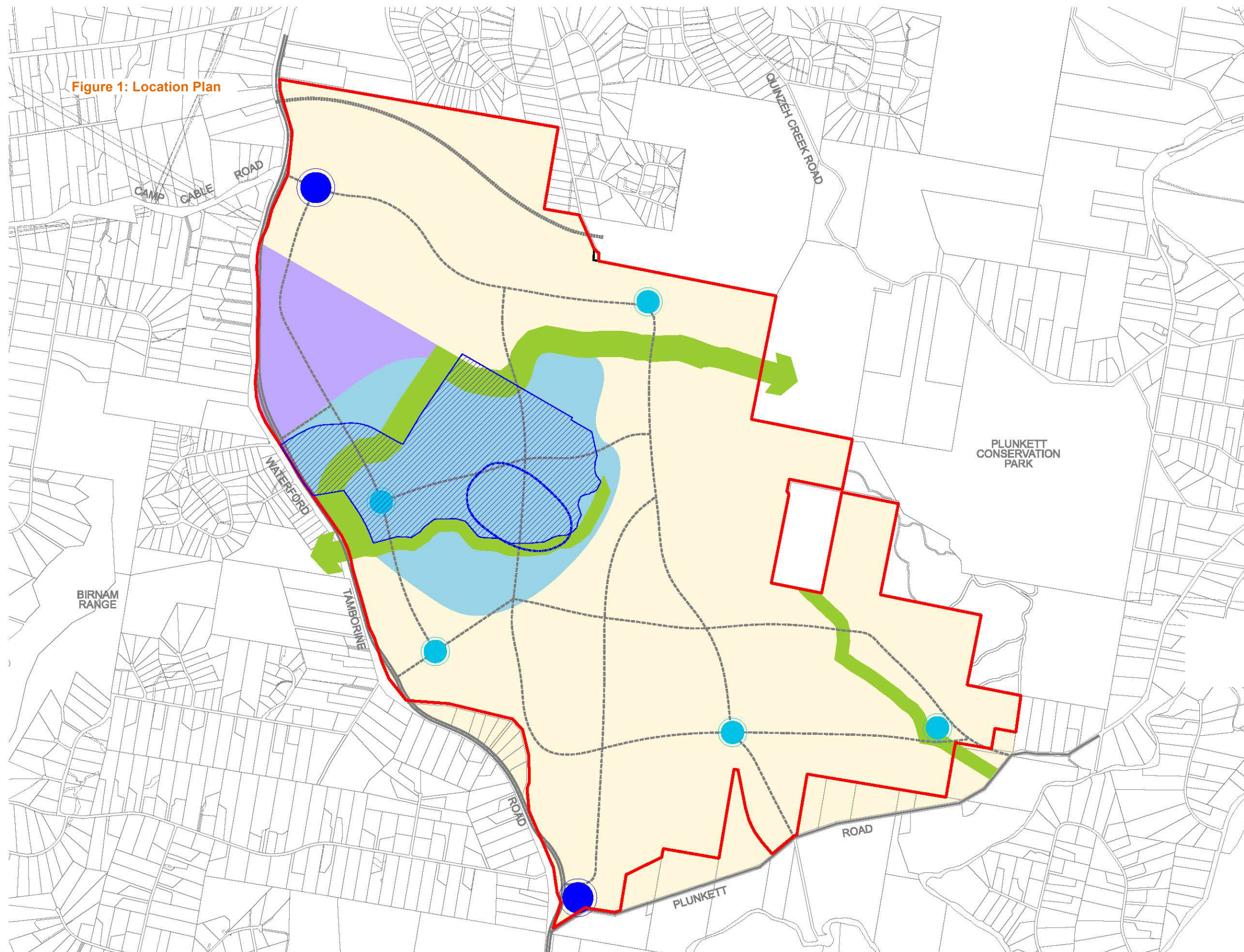


INTEGRATION OF
EDUCATION, TRAINING &
COMMUNITY FACILITIES













SEEING THE ADJACENT
TRANSMISSION
EASEMENT AS AN
OPPORTUNITY

Figure 1: Location Plan



LEGEND

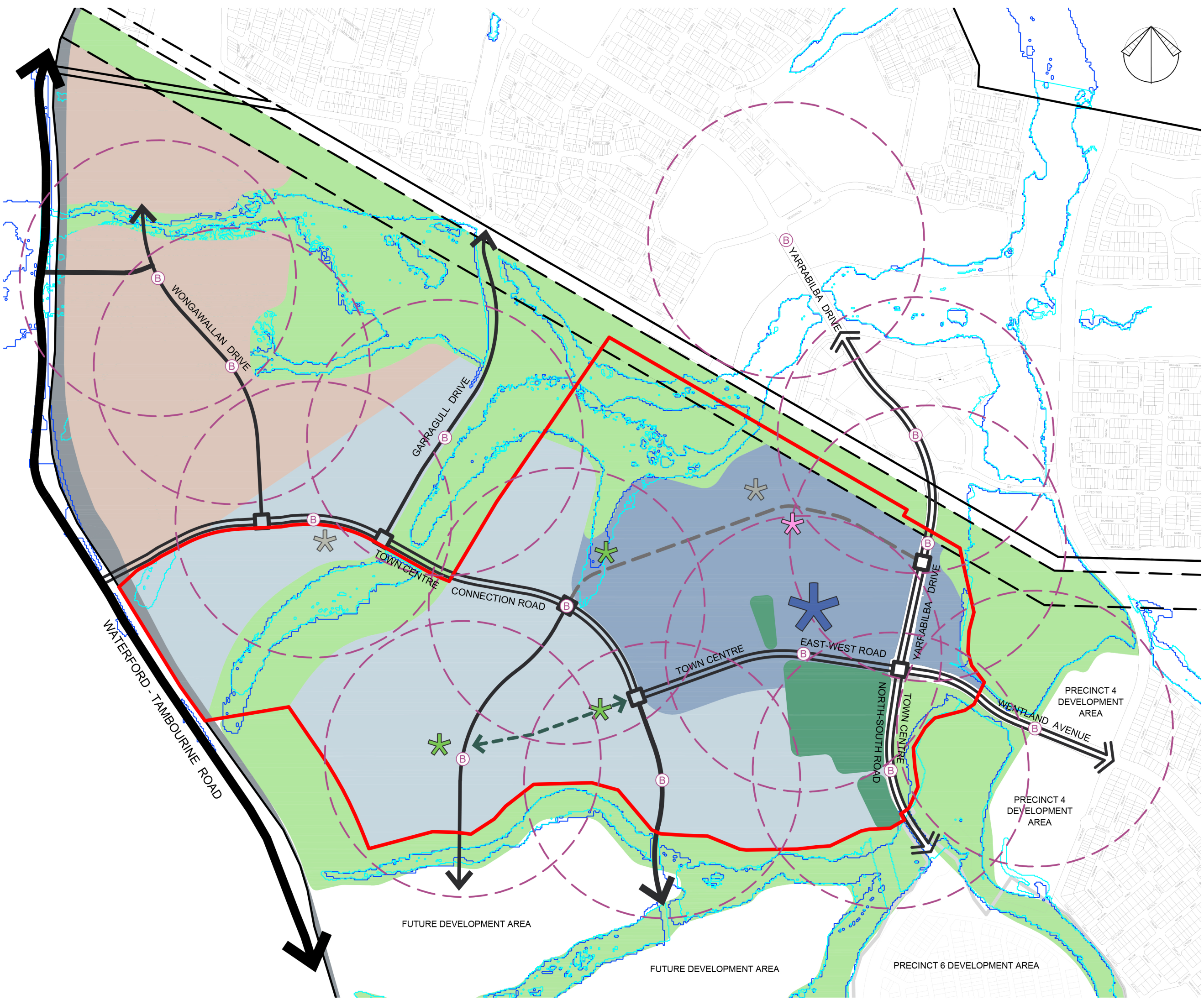
-  YARRABILBA SITE BOUNDARY
-  TOWN CENTRE
- LAND USE**
 -  URBAN LIVING ZONE
 -  MAJOR CENTRE ZONE (CORE)
 -  MAJOR CENTRE ZONE (FRAME)
 -  INDUSTRY AND BUSINESS ZONE
- ELEMENTS**
 -  FAUNA CORRIDOR
 -  DISTRICT CENTRE
 -  NEIGHBOURHOOD CENTRE
- TRANSPORT NETWORK**
 -  INDICATIVE MAJOR TRANSPORT CORRIDOR


YARRABILBA - TOWN CENTRE CONTEXT PLAN LOCATION

NOTE: This plan is indicative only, and specific uses, road alignment, boundaries, setbacks, and building layout shown may vary due to detailed design consideration. © 2021 Lendlease Communities (Australia). All rights reserved. Except as permitted by Lendlease, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the permission of Lendlease.

0 300 600 900 1200 1500
Scale 1:30,000 at A3







YARRABILBA

TOWN CENTRE
INDICATIVE
CONTEXT PLAN

PLAN REF: AU8248 – 10
REV NO: C
DATE: 24 October 2023
CLIENT: Lendlease
DRAWN BY: SE
CHECKED BY: CC

Note:
All Constraints, Boundaries and Areas are approximate only, and are subject to survey and Council approval.

Source Information:
Site boundaries: Registered Survey Plans

Legend


- Precinct Boundary
- Electricity Easement
- Waterford Tambourine Rd
- Sub-regional Shopping Centre
- Major Centre Core
- Major Centre Frame
- Industry & Business
- Open Space
- Major Recreation Park
- Honour Walk
- Sub Arterial (4 Lane)
- Sub Arterial (2 Lane)
- Collector Network
- Centre Collector (Subject to Design Development)
- Primary Intersections
- Indicative Bus Stop Location
- 400m Bus Stop Catchment
- Neighbourhood Recreation Park
- Potential Neighbourhood Recreation Park (Subject to Extent of Residential)
- 100 Year Flood Line
- 20 Year Flood Line
- Indicative Community Health Centre Location*

Note:
*: Minimum Land Areas in the Municipal IA is 3.2ha. Location and outcome is subject to negotiation between Lendlease and Queensland Health.



lendlease

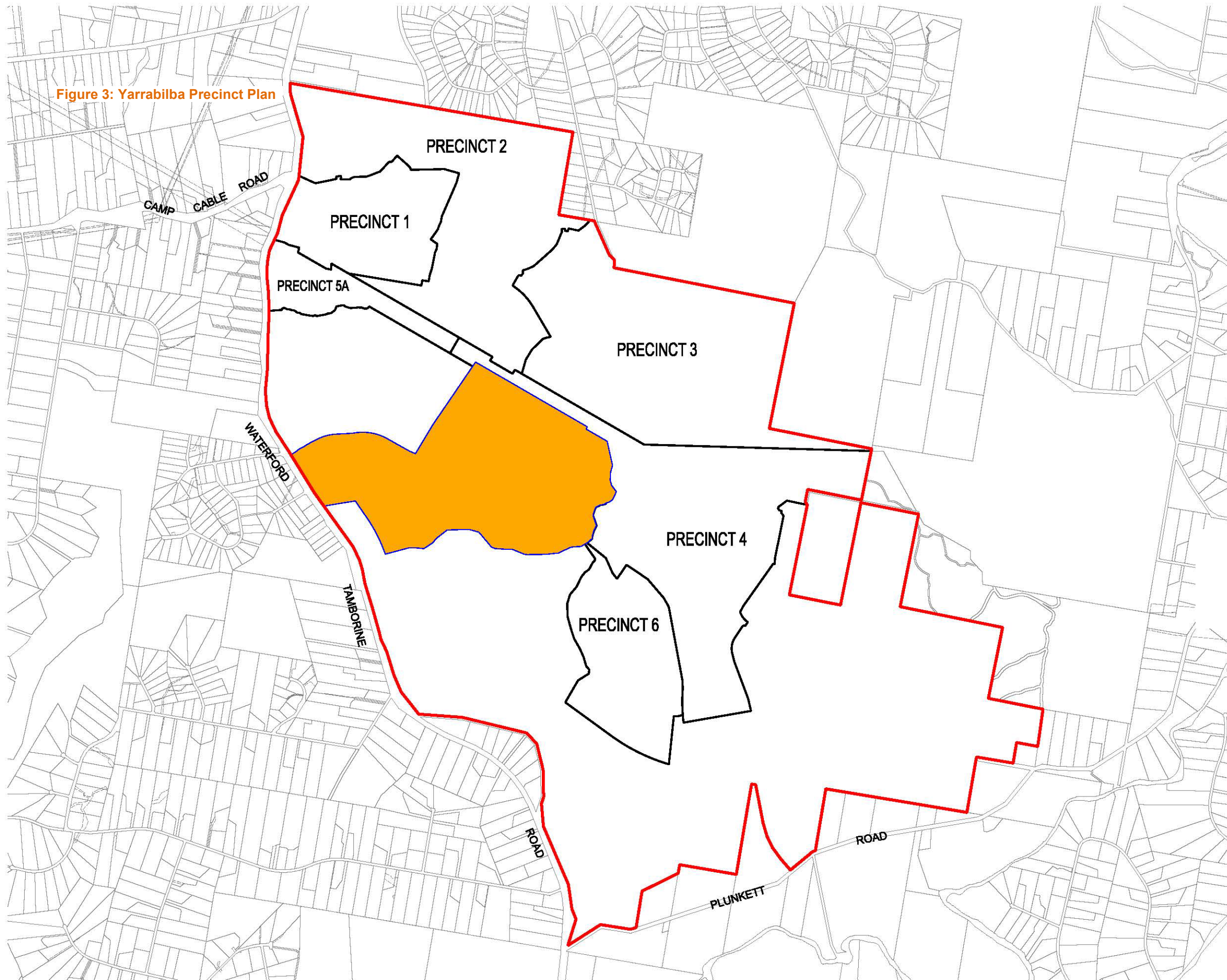
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rps

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Figure 3: Yarrabilba Precinct Plan



- YARRABILBA SITE BOUNDARY
- PROPOSED TOWN CENTRE PRECINCT
- EXISTING PRECINCT BOUNDARIES

YARRABILBA - TOWN CENTRE PRECINCT PRECINCT PLAN CONTEXT

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0 300 600 900 1200 1500m
Scale 1:20,000 at A3





0 50 100 150 200 300 1:10,000 @ A3

YARRABILBA
TOWN CENTRE
AERIAL PLAN

PLAN REF: **AU8248 – 08**
REV NO: **B**
DATE: 24 October 2023
CLIENT: Lendlease
DRAWN BY: SE
CHECKED BY: CC

Note:
All Constraints, Boundaries and Areas are approximate only, and are subject to survey and Council approval.

Source Information:
Site boundaries: Registered Survey Plans
Aerial: Nearmap Nov 2022

Legend

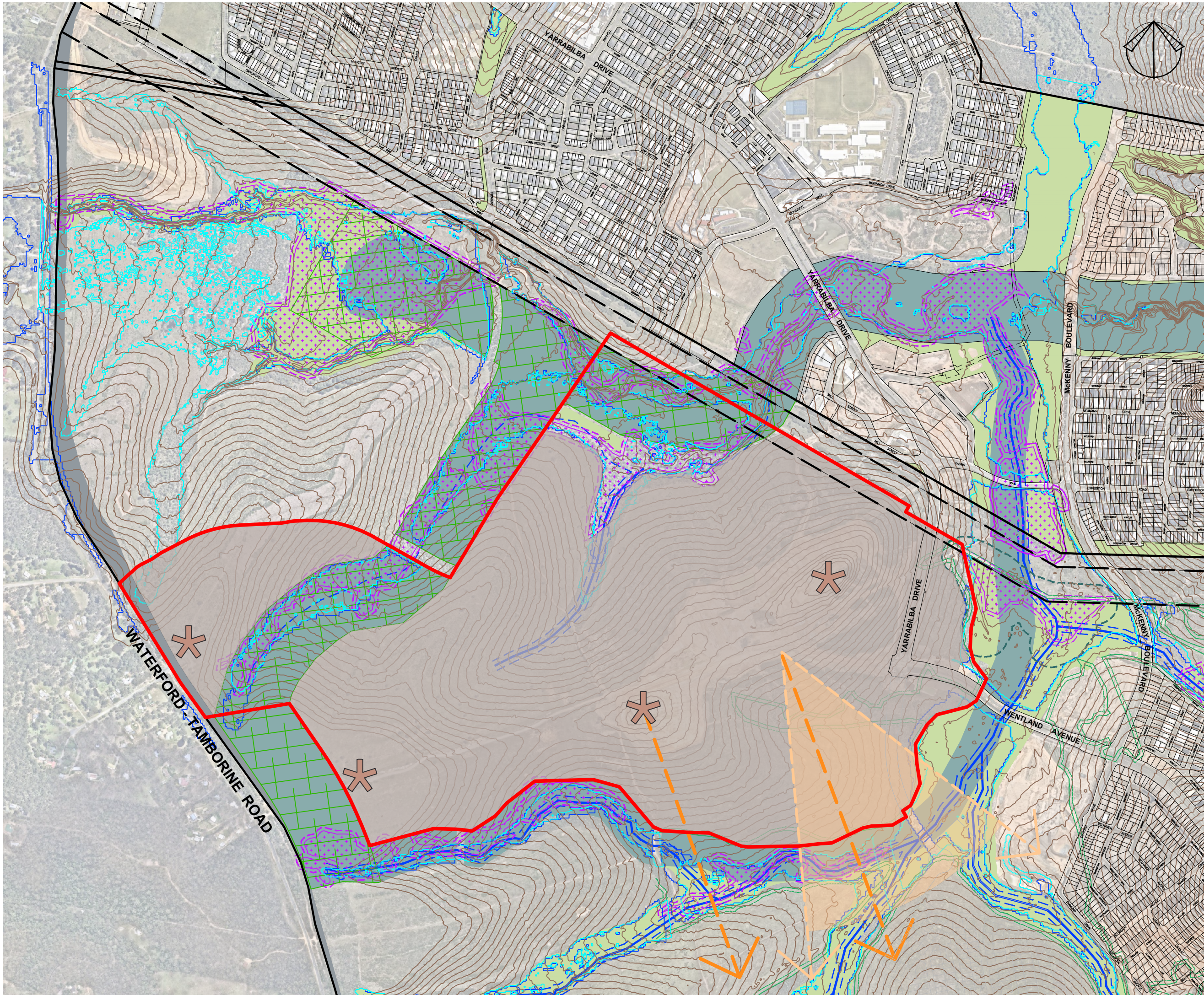
- Precinct Boundary
- - Electricity Easement
- 100 Year Flood Line
- 20 Year Flood Line



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YARRABILBA

TOWN CENTRE

FEATURES PLAN

PLAN REF: **AU8248 – 09**
REV NO: **B**
DATE: 24 October 2023
CLIENT: Lendlease
DRAWN BY: SE
CHECKED BY: CC

Note:
All Constraints, Boundaries and Areas are approximate only, and are subject to survey and Council approval.

Source Information:
Site boundaries: Registered Survey Plans
Aerial: Nearmap Nov 2022
Constraints: Lendlease

Legend

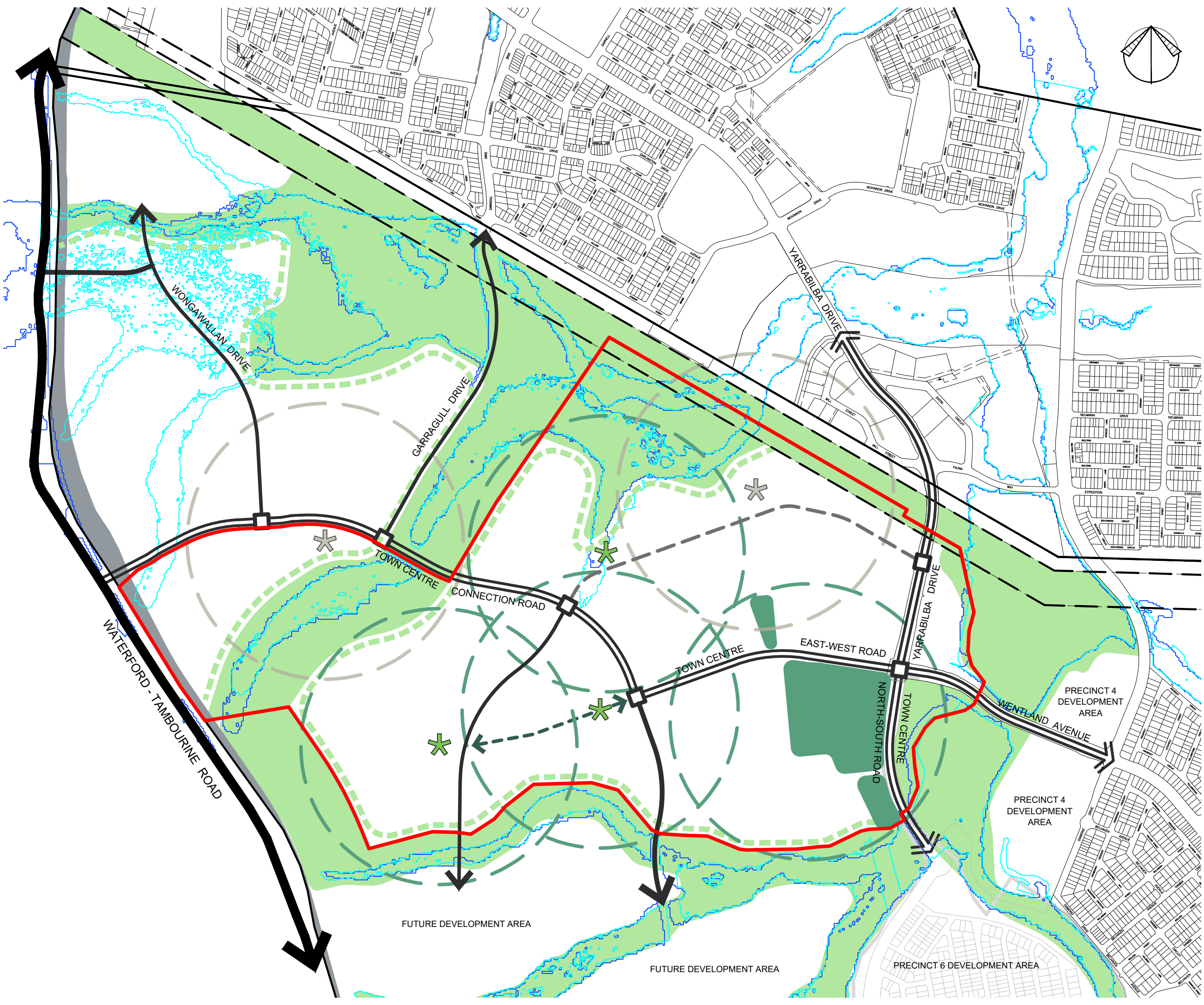
- Precinct Boundary
- Electricity Easement
- Waterford Tamborine Rd
- 1m Contours
- Earthworks Borrow Area
- High Point within Precinct
- Fauna Corridor
- Greenspace Corridor
- Road Resumption
- Koala Habitat & Buffer
- Tree Protection Zone
- Waterway & Buffer
- 100 Year Floodline
- Wetland 50m Buffer
- Views to Tamborine Bluff (Elevated View)
- Scenic Viewshed (Distant)
- 100 Year Flood Line
- 20 Year Flood Line



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YARRABILBA

TOWN CENTRE OPEN SPACE PLAN

PLAN REF: **AU8248 – 11**
REV NO: **C**
DATE: 24 October 2023
CLIENT: Lendlease
DRAWN BY: SE
CHECKED BY: CC

Note:
All Constraints, Boundaries and Areas are approximate only, and are subject to survey and Council approval.

Source Information:
Site boundaries: Registered Survey Plans

Legend

- Precinct Boundary
- Electricity Easement
- Waterford Tambourine Rd
- Open Space
- Open Space Buffer
- Major Recreation Park
- Honour Walk
- Neighbourhood Recreation Park
- Potential Neighbourhood Recreation Park
(Subject to Extent of Residential)
- 400m Park Catchment
- Sub Arterial (4 Lane)
- Sub Arterial (2 Lane)
- Collector Network
- Centre Collector (TBD)
- Primary Intersections
- 100 Year Flood Line
- 20 Year Flood Line



CPAS FOR IMP AND OSS AREAS

Strategies:

The following strategies are proposed for the Town Centre and Surrounds and have been prepared in response to the twelve endorsed Overarching Site Strategies (OSS) and Infrastructure Master Plans (IMP).

01

Accessible Housing &
Social Housing

06

Employment and Economic
Overarching Site Strategy

11

Water & Waste Infrastructure
Master Plan

02

Community Development
Plan

07

Energy Services Master Plan
Strategy

12

Total Water Cycle
Management Infrastructure
Master Plan

03

Community Facilities
Infrastructure Master Plan

08

Housing Affordability
Infrastructure Master Plan

13

Movement Network
Infrastructure Master Plan

04

Community Greenspace
Infrastructure Master Plan

09

ICT Strategy & Master Plan

14

Natural Environment
Overarching Site Strategy

05

Earthworks Infrastructure
Master Plan

10

Overarching Site Resource
Strategy

**Future PDA development
applications for the Town
Centre and Surrounds are
to be assessed against
these Strategies.**

STRATEGY 1:

ACCESSIBLE HOUSING & SOCIAL HOUSING OVERARCHING SITE STRATEGY

Strategy

The *Accessible Housing and Social Housing OSS* for Yarrabilba involves ongoing actions for the project that will continue to be met. It is the intention to deliver a range of housing options at Yarrabilba, including accessible housing and social housing options that will allow for a diversity of residents and community members. The successful establishment of community housing relies on tenants' easy access to community services, employment and other goods and services.

The *Accessible Housing and Social Housing OSS* for Yarrabilba outlines that social housing in Logan is owned and/or managed by the Department of Housing and Public Works (DHPW). In late 2016 it was announced by the DHPW that the Logan City Renewal Initiative would no longer be supported. As such, Lendlease's early engagement with Logan City Community Housing is no longer relevant.

In December 2016, DHPW announced an alternative initiative Better Neighbourhoods Logan. This program is understood to be a partnership between DHPW and Economic Development Queensland (EDQ). The initiative is intended to deliver over 3,000 new social and affordable homes by 2036 in Logan.

Within the time horizon for the Town Centre and Surrounds, between 2026-2036 the key focus areas to advance the OSS within Yarrabilba will include:

- Community & Social Housing
- Accessible Housing

COMMUNITY & SOCIAL HOUSING

- **Ongoing identification** of potential Community Housing and Social Housing partners.
- **Engagement** with DHPW and EDQ to discuss the detail of the Better Neighbourhoods Program and any opportunities for them to advance the outcomes sought in the OSS within the CPAS area, including scope for different product types.
- **With each ROL identify** specific lots for Community and Social Housing that may be subject to a first right of refusal at full market value.
- **Report** to EDQ with subsequent applications, outcomes of engagement and strategy for delivery of community/social housing product during the horizon of the CPAS area.

ACCESSIBLE HOUSING

- **Identification** of lots that would be suitable for the construction of accessible homes at the MCU/ROL stage and inclusion of an accessible lot plan with each ROL application (i.e. a plan indicating flat and sloping lots).
- **Engagement** with builders to encourage accessible housing product to be included within their portfolios, and to make customers aware of the benefits of accessible housing over the life of a home.
- **Requirement** of buildings within any display village to either construct display village homes to a 'silver standard' against the Liveable Housing Design Guidelines, or to provide housing of this standard within their portfolios. **Relevant housing accessibility standards under the National Construction Code are also mandated.**
- **Preparation** or update of a guide that details accessible housing product options available through Lendlease's partner builders. This guide (or update) is to be available through the sales and information centre within 12 months of the first ROL approval being issued for the residential precincts of the CPAS area.
- **Report** to EDQ within the last application in the CPAS area, outcomes of engagement with builders and customers.

STRATEGY 2:

COMMUNITY DEVELOPMENT PLAN

Strategy

The Community Development OSS for Yarrabilba has ongoing actions and objectives for the project that will continue to be met. Within the time horizon for the Town Centre and Surrounds CPAS, the key focus areas to advance the OSS and community development within Yarrabilba include:



Community Connection Strategies

- Ensuring access to community services as well as the delivery of permanent community facilities, such as 'the Buzz at Yarrabilba', 'the Exchange', 'Family and Community Place' and 'Shaw St Sport & Community Hub'.
- Continuing to provide support to Yarrabilba Network Groups including Stakeholder Collaborative Network Group, Workforce Development Group, Sport Supporters Group, Logan Rivers Early Years Network Group, and establishment of a new Youth Network Group.
- Continued support of sporting facilities at Shaw St Ovals and McKinnon Sports Park South in partnership with Logan City Council.
- Continue partnerships between State Government, Logan City Council and Brisbane Catholic Education to maintain the Precinct 3 Yarrabilba Community Hub (the Buzz at Yarrabilba). The Buzz at Yarrabilba opened in late 2022 and will be a permanent home to 'The Exchange,' offering free services for local job seekers and employers to support Yarrabilba's resident. The Buzz at Yarrabilba is an inclusive, engaging and responsive place that enables the Yarrabilba community to connect, learn, earn and innovate.
- Continue to support job seekers, training participants, and small and home based businesses via The Exchange with focus on Connecting, Learning, Earning and Innovation.
- Continue to support families via The Family and Community Place which offers a breakfast club, immunization clinic, child health nurse, supported playgroups, First 5 Forever programs, and more.
- Ongoing community communications and Meet Your Neighbour Program incorporating a balance of indoor and outdoor activations in partnership with local community groups and providers.



Education & Community Services

- Yarrabilba State Secondary College was completed in 2019 and opened to Grades 7 – 11 in 2023 and will be open to Grade 12 in 2024.
- San Damiano College is a co-educational school which opened in 2021 with three classes of Grade 7 students. The school will grow by one year level each year until the first cohort of Grade 12 graduate in 2026.
- South Rock State Primary School within Precinct 4 had its first intake of students in January 2023.
- A choice of childcare and early learning centres to support families.
- Ongoing discussions for university partnerships are continuing. A potential tertiary education strategy is being considered in parallel with the planning for the Town Centre and Surrounds.
- The Yarrabilba Community TAFE Learning Centre pilot commenced in 2023 with TAFE Qld securing space at The Buzz at Yarrabilba, and sharing practical learning spaces of Yarrabilba State Secondary College. The Exchange provides access to job-ready professional training and vocational workshops.
- A range of workforce participation strategies, recently focussing on School-Based Traineeships and Apprenticeship opportunities, and other School to Work transition supports.



Sport and Recreation Strategies

- Continuing to work with Council and sporting clubs to provide clubhouses and ancillary facilities as well as establishing organised sporting activities within the sports parks being delivered in Precincts 2, 3, 4 and 6. Logan City Council signed a lease with Yarrabilba Touch for the use of the P2 Ovals in 2021. Precinct 3 ovals have been secured for AFL and cricket with construction to commence in H2 of 2023. Other sports clubs in Yarrabilba offer Basketball, Netball and Rugby Union. There are also organised park runs that take place on Saturday mornings and various bootcamps.
- The Mingle Markets are held twice a month via seed funding through the Yarrabilba community grants program and are being brought to Yarrabilba by Creative Collective Cultural Community INC, a local not-for-profit organisation.
- Trail head locations have been identified and are being considered to provide access into the Plunkett Conservation Park. Lendlease are continuing to work with Queensland Parks and Wildlife Service (QPWS) to open these facilities to the community as development on the interface progresses.
- Construction of the multi-purpose Yarrabilba Sports and Community Hub located adjacent to Shaw Street Ovals is now complete. The building contains change rooms, toilet facilities, meeting rooms, a canteen, fully equipped commercial kitchen and 100sqm of community space.
- Darlington Parklands, Buxton Park, Sandstone Park, Jinnung Jalli Park and McKinnon Sports Park South are open recreation spaces for residents and visitors to enjoy.
- Establishment of a Sport Supporters Network Group and linkages of Sports Club training and volunteer recruitment with the services of The Exchange.

STRATEGY 3:

COMMUNITY FACILITIES

Strategy

To provide land for community facilities for the Yarrabilba community in accordance with the Yarrabilba Community Facilities Infrastructure Master Plan (IMP), and to work with infrastructure providers to ensure that the facilities provided are fit for purpose and delivered within an appropriate timeframe.

To explore opportunities for the delivery of education facilities in addition to the IMP and IA requirements.

Infrastructure shall be delivered in accordance with:

- Engineering Standards EDQ PDA Guideline No. 13
- Community Facilities EDQ PDA Guideline No. 11



Table 1: Community Facilities: Key Infrastructure

Community Infrastructure	Requirements in Town Centre and Surrounds (assumes additional 4,300 dwellings to be delivered for a total 10,500 dwellings)	Delivered / Planned Precincts 1 - 6
Neighbourhood Meeting Room	<p>Required (Land Only)</p> <ul style="list-style-type: none"> The provision of neighbourhood meeting rooms is to be generally in accordance with the Yarrabilba Community Facilities – Potential Neighbourhood Community Meeting Room Locations Plan included in Logan City Council's letter dated 10 January 2023. <p>Site B on this plan is included in the Town Centre and Surrounds CPAS area and is to comprise 0.075 ha x 3.5 (0.2625ha)*</p>	<ul style="list-style-type: none"> Sites 1 and 2 (co-located) in Shaw St Oval Site 3 provided in Precinct 3A (The Buzz). 3.5 sites will be delivered within Precinct 6, being Site A in accordance with the Yarrabilba Community Facilities – Potential Neighbourhood Community Meeting Room Locations Plan included in Logan City Council's letter dated 10 January 2023
Local Community Centre/ Hub	<p>Not proposed**</p> <ul style="list-style-type: none"> The provision of Local Community Centre / Hubs is not required within the Town Centre and Frame as per the Yarrabilba Community Facilities Plan included with Logan City Council's letter dated 10 January 2023 <p><i>Note, Site 2 is triggered at 6,000th residential lot, Site 3 is triggered at 9,000th residential lot, Site 4 is triggered at 12,000th residential lot, Site 5 is triggered at 15,000th residential lot.</i></p>	<ul style="list-style-type: none"> Site 1 delivered in Precinct 3A
District Community Centre	<p>Required</p> <ul style="list-style-type: none"> 1 x 1ha <p><i>Note, triggered at the 9,000th residential lot</i></p>	<ul style="list-style-type: none"> Site 1 has been provided in Precinct 3A (The Buzz).
Major Civic Centre/Hub	<p>Required</p> <ul style="list-style-type: none"> 1 x 1.5ha <p><i>Note, triggered at the 9,000th residential lot</i></p>	<ul style="list-style-type: none"> Nil

Major Sporting Facility	Not required <i>Note, the major sporting facility is to be provided within future precinct 15 in Yarrabilba (or other alternative precinct if agreed to by EDQ, Council and Lendlease) prior to the registration of the 9,000th residential lot or in accordance with an Alternate Infrastructure Plan.</i>	<ul style="list-style-type: none"> Nil
State Primary School	Not required <i>Note, Site 3 is to be provided within alternate future precincts in Yarrabilba prior to the registration of the 8,500th residential lot or in accordance with an Alternate Infrastructure Plan. Site 4 is triggered prior to the 11,500th residential lot. Site 5 prior to the 14,500th residential lot</i>	<ul style="list-style-type: none"> Site 1 – provided within Precinct 2 (Yarrabilba State School) Site 2 – provided within Precinct 4 (South Rock State Primary School) 1 x private primary school is also provided within Precinct 2 (St Clare's Catholic Primary School)
State Secondary School	Not required <i>Note, Site 2 - 15,000th residential lot</i>	<ul style="list-style-type: none"> Site 1- provided is Precinct 2 (Yarrabilba State Secondary College) 1 x private secondary school is also provided in Precinct 1 (San Damiano College)
Ambulance	Not required	<ul style="list-style-type: none"> The Queensland Ambulance Service (QAS) is operating within Village 3D, Precinct 3. Note, the trigger for this facility is the 8,000th residential lot.
Fire and Rescue	Not required	<ul style="list-style-type: none"> The Queensland Fire and Emergency Services (QFES) is established in Precinct 1 District Centre. Note, trigger for facility is 8,000th residential lot.
District Police	Not Proposed*** The trigger for the District Police Site is the 8,000 th residential lot however, allowance for District Police is made for in the MIBA area further south of MIBA North, subject to negotiations regarding Queensland Police Services preferred location.	<ul style="list-style-type: none"> Nil
Community Health Centre Hub (3.2ha)	Required <ul style="list-style-type: none"> 1 x 3.2ha 	<ul style="list-style-type: none"> The Yarrabilba Health City is set to open in 2023 and incorporates a variety of specialty units for cardiology, oncology, radiology, a dental surgery and allied health care.

** The location for community infrastructure is proposed in accordance with correspondence from Logan City Council dated 10 January 2023 and the Yarrabilba Community Facilities – Potential Neighbourhood Community Meeting Room Locations Plan dated 17/11/2022. The co-location of the Neighbourhood meeting rooms varies from the Infrastructure Agreement*

***Should the provision of Community Infrastructure agreed to by LCC, EDQ and Lendlease vary from the Infrastructure Agreement, in principle support should be obtained from these parties for an Alternative Infrastructure Plan.*

****Provision for District Police is made for in the MIBA area, south of MIBA North and is subject to further negotiations regarding Queensland Police Services preferred location.*

Note: An alternative infrastructure plan (AIP) and an amended Community Facilities Infrastructure Master Plan (IMP) will be required to address changes to the locations and/or triggers for Local Community Centres/Hubs, Major Sport Facilities, District Police, State Primary and Secondary Schools and District Community Centres/Hubs. The requests for the AIP and amended Community Greenspace IMP are to be submitted prior to the sealing of the last stage in the major centre frame or submitted prior to the sealing of the last stage in the first residential subdivision application for P6, whichever is sooner.

STRATEGY 4:

COMMUNITY GREENSPACE

Strategy

To provide land for open space and recreation for the Yarrabilba community in accordance with the Yarrabilba Community Greenspace Infrastructure Master Plan.

To deliver a range of different parks for different purposes as well as a network of parks that protect environmental features such as waterways and important existing vegetation that also provide opportunities for the community to access these features. Of the network of open space, a Major Recreation Park will be a key foundation and destination within the Town Centre. Details of the form and function of the Major Recreation Park is contained with the Masterplan.

Infrastructure shall be delivered in accordance with:

- Engineering Standards EDQ PDA Guideline No. 13
- Park Planning and Design EDQ PDA Guideline No. 12 and Logan City Council Desired Standard of Service
- Yarrabilba Town Centre Masterplan



Key Infrastructure to be provided:

Infrastructure to be provided in the Town Centre and Surrounds is detailed below based on the categories of park required in the IMP. Consideration should also be given to any obligations for the delivery of community greenspace infrastructure under an executed Infrastructure Agreements, if relevant.

Table 2: Community Greenspace: Key Infrastructure

Park Type	Requirements in Town Centre and Surrounds (assumes additional 4,300 dwellings to be delivered for a total 10,500 dwellings)	Delivered / Planned* Precincts 1 - 6
Local Recreation Park	Required 0.1 ha / 370 residential lots Minimum park size 500m ²	Provided / Approved - 6.81ha ⁵
Neighbourhood Recreation Park	Required 0.5 ha / 370 residential lots 90% of dwellings within 400m of a neighbourhood recreation park or other park providing equivalent informal recreation opportunities. Minimum 5,000m ² The number and location of recreation parks is subject to the extent of residential.	Provided / Approved – 8.38ha ⁵ <i>8 x neighbourhood recreation parks approved across Precinct 1, 2, 3 & 4A-E</i>
Local and Major Linear	Required Local 0.7 ha / 370 residential lots Major 0.5 ha / 370 residential lots & to coincide with waterways and fauna corridors	Provided / Approved – 74.5 ha ⁵
District Recreation Park	Not required <i>Note, DR3 is triggered at the 15,000th residential lot</i>	Provided / Approved: <ul style="list-style-type: none"> DR1 – 11.22 ha in Precinct 2 DR2 – 5.8 ha in Precinct 4 Total - 17.02ha
Major Recreation Park	Required 0.5 ha / 370 residential lots Minimum 10ha <i>Note, the rate of provisions under the Infrastructure Agreement includes an allowance for civic parks in town centres to be included in the MRP area.</i>	nil

District Sports Park	Not Required <i>Note, DS4 triggered at 12,000th residential lot & DS5 triggered at 15,000th residential lot</i>	Provided / Approved – <ul style="list-style-type: none"> ▪ DS1 (Shaw St Oval) – 4.83 ha ▪ DS2 – 10.5ha is planned to be provided in Precinct 4¹ ▪ DS3 – 7.8ha is planned to be provided in Precinct 6¹ ▪ Total – 23.13ha
Major Sports Park	Not required <i>Note, MS2 triggered 10,000th residential lot² & 4</i>	Provided / Approved – <ul style="list-style-type: none"> ▪ MS1 – 15.3 ha

* The 'provided/approved' areas are estimates only subject to variation

¹ The location of proposed DS2, proposed DS3 and approved DR2 vary from the Community Greenspace Infrastructure Plan and Infrastructure Agreement

² The 10,000th residential lot trigger for the Major Sports Park (MS2) is likely to be reached through the delivery the Town Centre and Surrounds CPAS. The location for MS2 is better placed south of Precinct 6, co-located with other community facilities (see note 4).

³ Based on schedule 2 of the Yarrabilba Infrastructure Agreement (Municipal) that identifies 2.8EP/detached dwelling or 1.78EP/attached dwelling, rather than 2.7 per dwelling under the IMP/OSS requirements.

The rate of provision under the IA converts closely to the rate of provision under the IMP/OSS. The IA trigger of 370 residential lots equates to 1,036 persons based on 2.8 persons per household under the IA. Similarly, 370 residential lots equates to 1,000 persons based on 2.7 persons per household under the IMP/OSS requirements.

Residential lots are to be calculated in accordance with the IA, as follows:

- where a Lot is approved, whether by a Plan of Development or otherwise, for a **house use**, the Lot is to be counted as consisting of **one Residential Lot** on the registration of a Plan of Subdivision containing the Lot;
- where a Lot is approved, whether by a Plan of Development or otherwise, for a **display home use**, the lot is to be counted as consisting of **one Residential Lot** on the registration of a Plan of Subdivision containing the Lot;
- where a Lot is approved, whether by a Plan of Development or otherwise, for a **multiple residential (duplex) use**, the Lot is to be counted as consisting of **one and one third Residential Lots** on the registration of a Plan of Subdivision containing the Lot;
- where a Lot is approved, whether by a Plan of Development or otherwise, for:
 - (a) **an other residential use**;
 - (b) **a relocatable home park use**; or
 - (c) **a short term accommodation use**,

*the Lot is to be deemed to consist of **25 Residential Lots per hectare** on the registration of a Plan of Subdivision containing the Lot.*

- *where a Lot is approved, whether by a Plan of Development or otherwise, for a **multiple residential (non-duplex) use**:*

(a) from the time that the Lot is created by the registration of a Plan of Subdivision (the "First Plan of Subdivision") until the time that the Lot is subdivided by one or more further Plans of Subdivision, the Lot is to be counted as consisting of one Residential Lot; and

*(b) when the Lot created by the First Plan of Subdivision is subdivided by one or more further Plans of Subdivision, each Lot created by those Plans of Subdivision is to be counted as **two thirds of a Residential Lot**.*

⁴ Should the provision of Open Space agreed to by LCC, EDQ and Lendlease vary from an Infrastructure Agreement, in principle support should be obtained from these parties for an Alternative Infrastructure Plan.

⁵ Includes future open space provisions in Precinct 6, which is subject to CPAS endorsement and future ROL Approvals

Note: An alternative infrastructure plan (AIP) and an amended Community Greenspace Infrastructure Master Plan (IMP) will be required to address changes to the trigger for Major Sports Park. The requests for the AIP and amended Community Greenspace IMP are to be submitted prior to the sealing of the last stage in the Major Frame Zone or submitted prior to the sealing of the last stage in the first residential subdivision application for P6, whichever is sooner.

STRATEGY 5:

EARTHWORKS INFRASTRUCTURE MASTERPLAN

Strategy

The Town Centre and Surrounds shall comply with the requirements of the Earthworks Infrastructure Master Plan.

Key actions relevant to the Town Centre and Surrounds include:

- **As part of first application:**
 - Submit Precinct wide erosion and sediment control measures as part of the Stormwater Management Plan
- **Prior to any subdivision applications being lodged:**
 - Commission a geotechnical study for the Town Centre and Surrounds to be completed prior to the lodgement of the subdivision applications
- **As part of subdivision applications**
 - Submit bulk earthworks plans and management plan
 - Submit soils management strategy
 - Confirm how the earthworks strategy addresses the geotechnical study findings
 - Address IMP code



STRATEGY 6:

EMPLOYMENT & ECONOMIC OVERARCHING SITE STRATEGY

Preamble

The Yarrabilba Employment and Economic Development Site Strategy – 16 April 2013 (EEDSS) defines actions and strategies for the project. The EEDSS was derived from Conditions 5 (Overarching site strategies) and 39 (Employment) outlined in the latest PDA Development Approval for DEV2011/187 issued by EDQ on 2 July 2019.

The employment calculations for the Yarrabilba Town Centre have been based on the approved gross leasable area (GLA) limits for the Major Centre Zone in the aforementioned development approval.

Description

The Yarrabilba Town Centre includes the planned Major Centre Zone (including Major Centre Core and Major Centre Frame) and is expected to support a wide range of land uses in response to community needs.

The Core will accommodate the highest order mixed use centre activities providing a mix of commercial, business, professional, community, entertainment and retail activities, while the Frame will accommodate a mix of land uses including uses that support activities in the Town Centre Core such as service and low impact industry, as well as low intensity uses such as warehouses, outdoor sales, showrooms and service stations. The Town Centre Core and Frame has sufficient commercial capacity to encourage mixed use development opportunities.

The approved GLA limits for the Yarrabilba Town Centre include the following:

- Retail Uses - up to 60,000m²
- Showroom - up to 50,000m²
- Commercial uses – up to 75,000m²
- Community uses – up to 30,000m²

Employment Estimates

The EEDSS defined how the Yarrabilba target of 13,000 jobs (at 60% employment self-sufficiency) will be delivered throughout the community. The Yarrabilba Town Centre is projected to deliver between 5,000 and 6,000 fulltime equivalent (FTE) jobs by encouraging permissible employment generating uses. Extractive industry, High impact industry, Medium impact industry and Noxious and hazardous industry uses are prohibited.

Strategy

The Employment and Economic OSS for Yarrabilba has ongoing actions for the project. For the Yarrabilba Town Centre, these actions include:

Attracting investment and employment by:

- Preparation of a marketing strategy and marketing materials
- Preparation of a strategy to attract target businesses and industries
- Continue to research and identify potential signature business types and clustering opportunities

Enabling infrastructure:

- The Exchange' commenced operation in 2016. It offered a free job-matching service for local job seekers and local employers, as well as enabling training placements and start-up and operational guidance for local small and home-based businesses. This service transitioned to the new Buzz at Yarrabilba community hub in late 2022, and continues to deliver these services to the community under a new partnership model
- Workforce Development Plan – Coordinate workforce development groups and work with organisations in 'The Exchange'
- Working towards a well established Workforce Development Group that is integrated with the strategy of The Exchange, and will continue to develop further initiatives in collaboration with the partners to The Buzz, TAFE Qld, and others

Growing local business:

- Incorporation of POD provisions to encourage home based businesses for standard residential product
- Collaboration with developers who can deliver multi-residential housing types (i.e. SOHO, WOHO type housing)
- Investigate the opportunity for an integrated technology and information hub

Business Connectedness:

- Continue working with key organisations such as the Logan Office of Economic development (LOED), The Exchange (facilities manager), the new Operator of the Buzz Community hub, and local business representatives to ensure business connections are fostered through local events and mutually agreed initiatives.

Place creation and amenity:

- On-going planning for employment areas including the town centre and MIBA; and
- Investigate opportunities in housing products in increased density areas close to the town centre frame that will provide opportunities for home businesses to support future activities in the major centre (i.e. SOHO, WOHO type housing).

Economic innovation & flexibility:

- Continuing to provide flexibility within the Town Centre and Surrounds to allow the business community to evolve overtime in response to changes in community needs as well as industry needs, technological advancement, etc.

Governance, monitoring and resourcing:

- Reporting on progress of compliance with EEOSS to be provided as part of development applications.

Conclusion

The planned development of the Yarrabilba Town Centre, including the Major Centre Core and Major Centre Frame, is in accordance with the actions and objectives established in the Employment and Economic Development Site Strategy. The subject precinct has the capacity to deliver the level of employment (5,000 to 6,000 FTE jobs) and land uses that will establish the precinct as supporting the highest scale and density of employment, activities and key community facilities. The employment supported within the Town Centre will provide a significant contribution towards the overall employment target of 13,000 jobs for Yarrabilba. The progress of achieving the employment targets in the Town Centre will be assessed as part of future development applications.

STRATEGY 7:

ENERGY SERVICES INFRASTRUCTURE MASTERPLAN

Strategy

To develop the Town Centre and Surrounds in accordance with the Energy Services Infrastructure Master Plan.

This will ensure that residents and businesses within Yarrabilba will have access to high quality energy services. Within the time horizon for the CPAS area, between 2026 and 2036, the key actions are:

- Work with Energex to confirm any land requirements for sub-stations prior to any ROL application being lodged within the CPAS area (except for management subdivisions or the like).
- Continued installation of LED streetlighting and park lighting
- No installation of reticulated natural gas to support electrification and Lendlease's Mission Zero targets.
- Continued implementation of reticulated electricity throughout the CPAS area to investigate and promote opportunities for innovative energy solutions such as renewable energy sources and small-scale storage.
- A suite of programs focusing on environmental sustainability and energy efficiency are being developed. These include education materials to assist households in understanding how they can save energy including the benefits of improved NatHERS ratings in the build of the home and investigation of opportunities for community batteries.
- Continue to investigate and promote opportunities for innovative energy solutions such as renewable energy sources and small scale storage.

STRATEGY 8:

HOUSING AFFORDABILITY INFRASTRUCTURE MASTERPLAN

Strategy

The *Housing Affordability Infrastructure Masterplan* for Yarrabilba involves ensuring allocation of housing considers smaller housing product that will remain within affordable rental and purchase ranges to be delivered across three income bands (Bands 1-3) whereby 35% of gross household income can adequately cover mortgage repayments or alternatively where 30% of gross household income can adequately cover rental costs. Affordability is to be assessed at the time of each residential ROL. The affordable housing provision within this CPAS area will be reviewed against provision throughout the wider overall site area.

Table 1: Minimum% makeup for homes in the Town Centre and Surrounds CPAS Area

Band*		Minimum requirement for total homes to be provided in the CPAS area based on predicted yield of 4,300 dwellings
Band 1	50% of the median annual household income for the Logan City Council Area	5% (215 homes)
Band 2	80% of the median annual household income for the Logan City Council Area	10% (430 homes)
Band 3	100% of the medium annual household income for the Logan City Council Area	10% (430 homes)

The PDA Housing Guideline has been updated since the Development Scheme was adopted and the Housing Affordability IMP was endorsed and changes the way the bands for affordability are calculated, which are aspirational for the Yarrabilba project to achieve.

The introduction of new housing product may be required to achieve housing affordability outcomes. Lendlease are committed to investigating new housing forms that may assist in achieving more opportunities for more affordable housing options at Yarrabilba reflective of the band intentions. The Town Centre and Surrounds CPAS area provides opportunity for diversity in product closer to the Town Centre. It is envisaged that this greater diversity in housing product will occur where densities are higher, and accessibility to services and other amenity is higher.

STRATEGY 9:

ICT STRATEGY & MASTERPLAN

Strategy

The ICT IMP is an evolving document that outlines deliverables required to support the progressive delivery of the Yarrabilba development from a Communication Technology perspective at a regional level. The strategy focuses on technology cycles and the use of digital services, systems and functions across the development.

The core attributes for achieving a successful ICT strategy include:

- Focusing investment on delivery of “key enablers”;
- Technology will facilitate change, accepting the fact that the technologies communities will enjoy in 10, 15 and 30 years’ time have not been invented, or even contemplated yet;
- Not over-investing in technology early in the project life;
- Partner where appropriate and do not lock into single vendor, carrier or proprietary technologies;
- Maintaining awareness of the political and industry changes impacting the Australian telecommunications marketplace; and
- A revised and updated Strategy document is currently being finalised. The review process identified significant progress against the goals and objectives of the original Strategy (prepared in 2015) and also articulates new Priority, Intermediate and Future goals that need to be addressed. A key focus of the updated Strategy is also to align with and support both Local and State Government objectives, thus ensuring Yarrabilba is also a key contributor to both Logan City and the State of Queensland.

Key Actions

For the Town Centre and Surrounds CPAS area, the below tasks are applicable:

- Continuation of FTTP network rollout including suitable provisioning as needed for opportunities under the Yarrabilba technology “blueprint” strategy;
- Continue discussions with providers for further coverage of mobile phone and data services; and
- Extending the availability of public WIFI in selected open space areas and continuing to work towards available WIFI in all public open spaces.

Future Tasks

- Increase carriage services in Yarrabilba; and
- Review the ICT strategy as required

STRATEGY 10:

OVERARCHING SITE RESOURCE STRATEGY

Strategy

Continue to implement requirements of the Overarching Site Resource Strategy within the Town Centre and Surrounds CPAS area to ensure that the project achieves planned sustainable development outcomes.

This CPAS has an estimated time horizon between 2026-2036. During this time the high priority areas to advance sustainable development outcomes within Yarrabilba will be:

- In December 2017, Yarrabilba was officially awarded a 6-star Green Star Community rating by the Green Building Council Australia. This 6-star Green Star rating required regular reporting to the Green Building Council. An extension has been granted for recertification by December 2024 to allow the project to review Greenstar communities version 2.
- Maintain and expand where practical, the adopted strategies for use and re-use of site materials to minimise the importation of externally sourced construction materials.
- Data provided from Translink shows that student patronage on the Yarrabilba bus service has continued to steadily increase (latest advice indicated school patronage at 474 students per day in 2018, increased from 344 students per day in 2016). Continued monitoring and identifying further options to promote increased use of sustainable transport (active and public transport options) within Yarrabilba will occur.
- Supporting EV readiness as part of future development for town centre carparks, mixed use, multiple dwellings and houses.
- Promote resource management and ecologically sustainable development via innovative technology and best-practice design outcomes.

STRATEGY 11:

WATER & WASTEWATER

Strategy

Strategy 11 – Water & Wastewater is broken into the following components

- Sewer (Wastewater)
- Water Supply

Sewer (Wastewater)

Sewering of the proposed Yarrabilba Town Centre and Surrounds development will be based on the internal collection system layout outlined in the 'Yarrabilba Water Supply and Sewerage – Infrastructure Master Plan 2023', Stantec, (to be provided in May 2023). The long-term approach is to transfer sewage to a new treatment plant near Logan Village as identified by Logan City Council (LCC).

EDQ, in conjunction with LCC and major Logan PDA developer stakeholders, drafted a revised sewerage strategy that includes the Yarrabilba and Park Ridge areas as outlined in 'Logan South Wastewater Servicing Strategy' dated 27 May 2016. As part of the strategy, a regional sewage treatment plant (STP) will be constructed to the west of Logan Village. Based on the report 'Yarrabilba Water & Wastewater Servicing – Status Report' dated June 2019, the first stage of the STP is to be delivered by LCC and commissioned after 2025 (dependent on growth rates) in conjunction with a new rising main from Yarrabilba to the regional STP. Recently LCC also undertook a further assessment applying dynamic wet weather flow containment standards. The assessment outcomes show that the Yarrabilba system capacity is approximately 20,420 - 25,000 EP at Yarrabilba pumping station SPS 084. Based on the observed growth rates of the Yarrabilba development between 2020 to early 2022, the estimated spare capacity will be exhausted around 2030. As growth in the Logan Village/Logan Reserve area needs to be considered, the STP timing of 2025 may still be valid.

Prior to completion of the new regional STP, sewage from the Yarrabilba development is transferred from the pumping station SPS 084 to LCC's Loganholme WWTP via the Logan Village pumping stations and the existing trunk system. Sewage from Precincts 1, 2 and part of 3 is collected by the existing SPS 084 and SPS 087 pumping stations. Sewage from the balance of Precinct 3, Precinct 4, Precinct 6 and Precinct 5 MIBA North and the proposed Town Centre and Surrounds development can be collected by the existing temporary pumping station SPS 153.

This pumping station will transfer the collected flow to pumping station SPS 084. The wet weather storage facility at pumping station SPS 084 (constructed in 2017 as part of the Precinct 3 development) will ensure that the existing network has capacity to transfer or contain flows from Yarrabilba Precincts 1, 2, 3, 4, 6, and 5 (MIBA North) and Town Centre development until the total Yarrabilba occupied population reaches the revised system capacity of 20,420 - 25,000 EP.

In accordance with Logan City Council's (LCC) technical memorandum dated 22 March 2023 re Yarrabilba PS3 Capacity Memo, the capacity of the temporary pumping station SPS 153 is revised as 6,896 EP based on the static unit peak wet weather flow of 1,000 L/EP/day, or 7,319 EP based on the assumption of 17,498 m sewers installed and the calibrated modelling parameters are replaced by the Logan's adopted reduced Infiltration gravity sewer (RIGS) parameters.

EDQ has approved a total of 7,494 EP in the pumping station SPS 153 catchment, which is higher than both static and dynamic capacities calculated by LCC. However, LCC also confirmed the 2022 October connected population in the pumping station SPS 153 catchment was only 1,698 EP. The observed peak weather flows were approximately 30 to 35 L/s. By comparing with the revised SPS 153 capacity of 79.5 L/s (calculated by LCC), the risk of over is minimal by 2022. EDQ acknowledged the time delays between the approved and occupied population and the increased risk of over approval in the pumping station SP 153 catchment.

Both LCC and Lendlease will undertake the following agreed actions to facilitate the coming applications and manage the risks of over approval in the pumping station SP 153 catchment:

- Lendlease will provide the latest development rollout schedule to LCC
- LCC to undertake the relevant options assessment to compare:
 - advancing the schedule for the ultimate sub-regional sewerage infrastructure (new regional STP, new pumping station at the SPS 153 site along with new rising main to STP)
 - delivering a local interim solution (e.g. wet weather storage near SPS 153, larger SPS 153 pumps or constructing and utilising the ultimate Yarrabilba PS3 rising main). It is noted that the interim solutions will be at LCC's cost in accordance with the endorsed infrastructure agreement.
- Revise the dynamic capacity of pumping station SP 153:
 - Lendlease to undertake the field investigation of possible sources of fast response component of rainfall dependent inflow and infiltration in the network.
 - LCC to install flow gauges in the Yarrabilba gravity sewer network and calibrate the fully developed pumping station SPS 084 catchment.
 - LCC to re-assess the dynamic capacity of pumping station SP 153 by applying the modelling parameters obtained from the pumping station SPS 084 catchment.

The servicing of the early stages of Town Centre development will be addressed in the Precinct Network Plan (PNP).

Key issue

Lendlease will continue to work with EDQ and LCC to confirm the long-term regional sewerage strategy and the timing of construction of the regional STP. The overall approval risks in the temporary pumping station SPS153 catchment will be managed through the agreed actions and mitigation measures.

Approach to Services for Town Centre

A Precinct Network Plan (PNP) for the Town Centre development will be submitted and endorsed prior to the granting of the first ROL. The PNP will include both interim and ultimate solutions in accordance with the revised regional strategy agreed by both EDQ and LCC. The PNP is a detailed planning document that identifies all trunk infrastructure to service the proposed Town Centre both internal and external to the site. The PNP will include details of all the infrastructure required, including layout plans, pipe sizes, conceptual design of the new pump station, vertical alignment of controlling sewer, and concept level details of interim servicing infrastructure required to address development staging and odour/corrosion control. The PNP will be in alignment with the IMP strategy (to be provided in May 2023) and supported by an assessment to verify that Desired Standards of Service are met and each lot can be serviced in an efficient way.

Standards to be applied to the provision of wastewater infrastructure are:

- SEQ Water Supply and Sewerage Design and Construction Code;
- Logan Water Desired Standards of Service – Water;
- WSA 02-2014 Sewerage Code of Australia (Second Edition, 2014); and
- WSA 04-2005 Sewerage Pump Station Code of Australia (Second Edition, Version 2.1, 2005).

Timing

The PNP will be submitted and endorsed prior to the granting of the first ROL for Town Centre development.

Water Supply

Servicing the proposed Town Centre and Surrounds development with potable water will be generally in accordance with the strategy outlined in the 'Yarrabilba Water Supply and Sewerage – Infrastructure Master Plan 2023', Stantec, (to be provided in May 2023).

The development will be served from the Travis Road reservoirs, i.e. existing 3 ML and 6 ML reservoirs. Supply to the reservoirs will be provided by a new connection from the Southern Region Water Pipeline (SRWP) at Chambers Flat along with a new 600 mm diameter trunk main, which has been confirmed by Seqwater in the Logan South Local Area Plan (2020). Prior to the new bulk water connection being made available, LCC has constructed a new 6 ML reservoir at Travis Road and will install a 1.8 km of 600 mm diameter trunk main along Camp Cable Road to Yarrabilba Drive. Based on the outcomes of the current operational scenario in LCC's 2022 hydraulic model, the existing bulk supply (without the SRWP connection and Travis Road reservoir outgoing main augmentation) has capacity to supply Precincts 1 to 5 and may be able to serve the early stages of Precinct 6 development at current growth rates. LCC has advised that the connection to the SRWP and the 600 mm diameter trunk main along Camp Cable Road to Yarrabilba Drive will be constructed before the Town Centre development is connected.

The internal water supply system for Town Centre and Surrounds development will require the extension of the 375 mm and 300 mm diameter trunk mains from the existing MIBA North and Precinct 4 and 6 developments to the Town Centre and Surrounds development area. There are no constraints in relation to the delivery of this mains extension. A pressure management strategy will be developed for the Town Centre development, in conjunction with LCC.

The timing (EP trigger) for delivery of the new SRWP connection and the Camp Cable Road trunk main augmentation is provided in the revised IMP report (to be provided in May 2023) and incorporated into the PNP, together with the confirmation of the pressure management strategy.

Key Issue

The ultimate water supply for Town Centre and Surrounds will be provided via the existing 9 ML storage reservoirs at Travis Road. A new bulk supply connection from the SRWP around 2023 (delivered by LCC), and a 600 mm diameter main augmentation in Camp Cable Road will be required. Lendlease will continue working with EDQ and LCC to confirm this strategy and the timing of augmentation. A pressure management strategy will also be developed for the Town Centre development. Implementation of the planned pressure management strategy for the developed Yarrabilba precincts is to be confirmed prior to the Town Centre development.

Approach to Services for Precinct 6

A Precinct Network Plan (PNP) will be required for the Town Centre and Surrounds development. The PNP will include both ultimate and interim solutions in accordance with the revised regional strategy agreed by both EDQ and LCC. The PNP is a detailed planning document that identifies all trunk infrastructure to service the proposed Precinct, both internal and external to the site. The PNP shall include details of all the internal infrastructure required to deliver peak demand, fire flow and pressure management (as required), including layout plans, pipe sizes, and details of pressure reduction areas and equipment. The PNP will be in alignment with the IMP strategy (to be revised) and supported by an assessment to verify that Desired Standards of Service are met and each lot can be serviced in an efficient way.

Standards to be applied to the provision of water supply infrastructure are:

- SEQ Water Supply and Sewerage Design and Construction Code;
- Logan Water Desired Stands of Service – Water; and
- WSA 03-2011 Water Supply Code of Australia (Second Edition, 2011).

Timing

The PNP will be submitted and endorsed prior to the granting of the first ROL. The IMP will be submitted and endorsed based on the agreed timeframe between EDQ and Lendlease.

STRATEGY 12:

TOTAL WATER CYCLE MANAGEMENT

The *Total Water Cycle Management Strategy* (TWCMS) (DesignFlow, 2023) provides an overarching strategy that combines the individual Infrastructure Master Plans (IMP) and site assessments covering stormwater, flooding, waterways, groundwater and water supply/wastewater.

While separated for the purpose of strategy discussion below, the management of land and infrastructure for these water cycle elements can be integrated to achieve a range of beneficial outcomes including ecological waterway protection, multiple use open spaces, improved landscape amenity and reduction in potable water demand. Recognition of the social element of total water cycle management is included to ensure the community both contributes to and benefits from an integrated approach to water management within Yarrabilba.

The Yarrabilba Town Centre strategy details relating to each of the intermittent water cycle elements (stormwater, flooding, waterways and groundwater) are provided on the following sections. The relatively constant urban water cycle elements (water supply and wastewater) are discussed briefly for completeness within the TWCM strategy. Reference should be made to Strategy 11 (Water and Wastewater) of this Context Planning Area Strategy (CPAS) for further detail on the relevant strategies, infrastructure requirements and reporting associated with these associated elements of the water cycle.

STORMWATER

Strategy

To protect ecosystem health and stability of receiving waterways or improve the condition of degraded waterways by managing urban stormwater to meet the objectives identified in Table 1 and 2 of the *Stormwater Infrastructure Master Plan* (DesignFlow, 2023) and summarised below:

- Achieve best practice pollutant load reductions for key stormwater pollutants.
- Minimise the increase in waterway erosion risk through post development flow management and/or waterway rehabilitation.

In addition, opportunities for the provision of fit for purpose alternative water supply options such as stormwater harvesting for open space irrigation will be identified and assessed where practical. While not currently being pursued by Lendlease, these initiatives are retained in the TWCMS as opportunities for future integration.

Key Infrastructure

Stormwater management infrastructure (and strategies) associated with Yarrabilba Town Centre will include:

- Sediment ponds, bioretention basins and/or constructed wetlands for water quality and minor flow attenuation
- Existing Flood detention Basin 15 and proposed Flood detention Basin 19 (or alternative local scale flood basins) for flood attenuation (see flooding section below)
- Protection/stabilisation/rehabilitation of waterway corridors (dependent on condition) and integration of vegetated stormwater infrastructure into degraded waterway buffers to enhance habitat value, amenity and contribute to multiple use open spaces.

Stormwater infrastructure aims to integrate closely with the flooding and waterway management strategy to achieve a range of goals while optimising use of space and resources. However, waterway riparian buffers and overriding setback requirements under Strategy 14 - Natural Environment Overarching Site Strategy must be considered when locating key infrastructure.

Where existing erosion/scour is present, or where localised flows are above pre-development conditions, rehabilitation works (such as rock protection and/or revegetation) will be undertaken to minimise potential for increased erosion risk under post-development hydrological conditions.

Stormwater infrastructure shall be delivered in accordance with:

- Engineering Standards – EDQ PDA Guideline No. 13
- Park Planning and Design – EDQ PDA Guideline No. 12

Reporting

A stormwater management plan is required as part of the first development application to demonstrate that stormwater quality and minor flows can be managed onsite or are within waterway stability thresholds to achieve the pollutant load reduction and flow management objectives. This management plan will link with the flooding strategy (Quinze Creek) and waterway stability approach adopted for the precinct as described further below.

FLOODING

Strategy

To provide flood management infrastructure that integrates with parks and natural open spaces in order to meet the objectives identified in Table 4 of the *Stormwater Infrastructure Master Plan* (DesignFlow, 2023) and summarised below:

- Mitigate flood impacts on people, property and infrastructure external to Yarrabilba by preserving peak site discharge and flood levels upstream and downstream of the site to predevelopment conditions for all events from 50% to 1% AEP.
- Maintain flood conveyance through the site.
- Provide for 1% AEP flood immune development within the site with consideration of climate change.

Key Infrastructure

Flood management infrastructure to be provided within or associated with Yarrabilba Town Centre includes:

- Flood Basin 15 (existing) 15 and proposed Flood detention Basin 19 (or alternative local scale flood basins) for flood attenuation

Flood management will generally be undertaken in accordance with the *Yarrabilba Masterplan Flood Risk Management Strategy* (DesignFlow, 2023) which beneficially exploits the use of the natural terrain and constructed road crossings (over drainage features and watercourses) to attenuate increased runoff from development. It should be noted that flood mitigation infrastructure is not constructed solely for a single stage or precinct, but functions as part of a total site flood management strategy that addresses current and future development precinct requirements. A number of these detention zones have been constructed in Precinct 1, 2 and 3 to date in advance of the urban development within the catchment.

Flood infrastructure shall be delivered in accordance with:

- Engineering Standards - EDQ PDA Guideline No. 13
- Protection from Flood and Storm Tide Inundation – EDQ PDA Guideline No. 15
- Park Planning and Design – EDQ PDA Guideline No. 12

Reporting

A detailed flood assessment which represents an update to the *Yarrabilba-Quinze Creek Flood Study* (DesignFlow, 2017) (previously prepared across the overall Yarrabilba site portions draining to Quinze Creek) will be required to define additional (ultimate) flood detention requirements for Town Centre development in conjunction with surrounding future development. Alternatively (where full catchment flood study is not available or in progress), a localised flood impact assessment of interim or temporary flood management infrastructure (based on Town Centre only) may be required.

A stormwater quantity certification will then be required to support development application that confirms Yarrabilba Town Centre achieves flood objective stated above.

WATERWAYS

Strategy

The overarching waterways site strategy aims to protect and enhance waterways and wetlands for ecosystem health and amenity to meet the objectives identified in Table 2 and Table 3 of the *Stormwater Infrastructure Master Plan* (DesignFlow, 2023) as well as meet the obligations set out in Strategy 14 (Natural Environment Overarching Site Strategy (NEOSS)). Waterway management (from engineering perspective) is inseparable from the strategies outlined in NEOSS and must therefore be cognisant of the overlapping constraints and requirements in key areas.

Key Infrastructure

The potential impacts of urban runoff on waterway health and stability are managed via the implementation of water quality and flow management strategies identified as part of the stormwater and flooding components of the CPAS described above. To further preserve or enhance the ecosystem and character values of waterways and wetlands onsite, riparian buffers have also been adopted in accordance with Section 4.3 of the *Stormwater Infrastructure Master Plan* (DesignFlow, 2023). Minimum buffers (from top of defined bank where relevant, or centreline) are:

- 30m to major creeks
- 15m to minor creeks and drainage lines
- 50m to wetlands of local significance

Where regional ecosystem mapping or detailed vegetation survey identifies a greater riparian corridor, this should be retained in preference to minimum buffers above. Conversely, where buffers contain minimal significant vegetation, it may be practical to include vegetated stormwater treatment infrastructure or recreational infrastructure within the buffer in conjunction with rehabilitation.

For waterways that are degraded but have potential ecological value, stabilisation works and/or revegetation to suit post development hydrology and intended use is proposed. The *Yarrabilba Waterway Condition Assessment* (DesignFlow, 2023) (Appendix C to the *Total Water Cycle Management Strategy* (DesignFlow, 2023)) provides broad assessment of the Yarrabilba Town Centre areas for consideration. However, as part of each stage/open space interface design, a detailed review of waterway and riparian condition is recommended to ensure the local issues (including small scale issues such as scour) are addressed through design.

Waterways and waterway buffers shall be delivered in accordance with:

- Environmental Values and Sustainable Resource Use – EDQ Guideline No. 14
- Park Planning and Design – EDQ PDA Guideline No. 12
- Development Interfaces – EDQ PDA Guideline No. 18

An important factor in the implementation of waterway protection or rehabilitation is the comparatively slow timeframes over which protection/improvement can be measured (compared to the rate of development). Based on the Precinct 1, 2 and 3 experiences to date, there is merit in limiting the intervention in degraded/disturbed waterways until development within the catchment has neared completion (unless major issues are evident prior). Allowing natural regeneration and succession of vegetation species within waterways (including weeds initially) has been shown to represent a beneficial and cost effective outcome for particular waterways. However, where overriding requirements for Koala or other fauna/flora management exist or major instability issues present a risk to infrastructure, these must be taken into consideration and adopted where necessary.

Reporting

As waterway management requires strategic input from both engineering and ecological disciplines, the waterway management strategy will be captured across the precinct wide Stormwater Management Plan (for engineering strategies associated with stormwater quality and stability management) and the Vegetation and Rehabilitation Management Plans (for ecological strategies relating to flora/fauna protection and enhancement).

GROUNDWATER

Strategy

The overarching groundwater site strategy aims to protect the ecological health, environmental values and water quality of groundwater and associated dependent ecosystems while managing the potential impact of groundwater on development and infrastructure.

Key Infrastructure

Key infrastructure within Yarrabilba Town Centre impacting groundwater will be the major road crossings of waterways (where bridges are not proposed). These will require design to allow shallow groundwater flow through low level culverts or alternative sub-surface engineered drainage system to avoid adverse impacts to existing significant vegetation or aquatic communities in these areas.

Potential impacts to (or from) groundwater may occur from cut and fill earthworks and services trenching. Where detailed site or geotechnical investigations identify localised groundwater interception locations, these will be managed as part of infrastructure design, construction management and directed towards local drainage and ultimately the waterways. The stormwater quality strategy described previously protects downstream waterway health while managing minor flows from development. Based on historical observations within Precinct 1 to 3 developed to date, has been a general increase in wetness (seepage flow) within ephemeral waterways during and after development attributed to pine plantation removal, interception of springs by stormwater infrastructure, slow release of water from bioretention basins and anthropogenic sources (e.g. lawn over-irrigation). Adequate supply of water to existing (and introduced) downstream aquatic and groundwater dependent ecosystems is therefore sustained.

Infrastructure shall be delivered in accordance with:

- Engineering Standards - EDQ PDA Guideline No. 13

Reporting

No specific reporting is required for subsequent applications as groundwater factors are addressed through stormwater quality management (see above) and detailed civil engineering design.

COMMUNITY

Strategy

Yarrabilba aims to adopt urban and landscape design that responds to and promotes community awareness of water supply and use, waterway function, local environment and where practical, allows for safe interaction with these natural areas.

Key Opportunities

- Integrate community infrastructure into public open spaces within and surrounding areas designated for stormwater, flooding and waterways strategies discussed previously (multiple use public open spaces) by including pathways adjacent to and through waterway/vegetation corridors for use during low or no rainfall periods.
- Provide educational signage to highlight the environmental/ecological role of waterways and vegetation corridors while protecting public safety through warning/caution signage to reinforce the flood conveyance role of these areas and risk associated.
- Ensure infrastructure design is sensitive to the adjoining natural landscape to promote a blurred interface between urban and natural landscapes.

Reporting

No stand-alone reporting is required for this aspect of the Total Water Cycle Management (TWCM) CPAS as these elements form part of the detailed planning and design of stormwater infrastructure and open space landscapes.

STRATEGY 13:

MOVEMENT NETWORK INFRASTRUCTURE MASTERPLAN

Previous Transport Assessments

Numerous traffic and transport planning, assessments and reports have been undertaken and prepared for the Yarrabilba development, including various iterations of the Movement Infrastructure Master Plan (MIMP). The most relevant versions of the MIMP are as follows:

- *“Yarrabilba Movement Infrastructure Master Plan”* by Cardno dated October 2015. This was endorsed by Economic Development Queensland (EDQ) on 11 Nov 2015.
- *“Yarrabilba Movement Infrastructure Master Plan”* by Cardno dated October 2015. This was endorsed by Economic Development Queensland (EDQ) on 3 July 2019, reflecting the agreed transition of bus services to TransLink by May 2020.
- *“Yarrabilba Master Plan Development - Movement Infrastructure Master Plan”* by SLR Consulting, Version 8, issued on 21 October 2022. This version reflects the updated traffic modelling (undertaken in 2018) using the revised major road network and revised development layout. Note, the total development yields remain consistent with the endorsed Movement IMP.
- *“Yarrabilba Master Plan Development – Traffic Model and Intersection Analysis Data Compendium”* by SLR Consulting, dated November 2019 and issued on 21 October 2022. This document is a compilation of the latest Strategic modelling, Mesoscopic modelling and Intersection analysis undertaken for the entire Yarrabilba master plan road network as at the time of writing. It was submitted to EDQ concurrently with the MIMP version 8, as it is intended to complement this document and inform future internal road classifications based on functional requirements.

The following sections provide commentary regarding their corresponding development characteristic and whether they align, or not, with the following:

1. the EDQ-endorsed (3 July 2019) Movement IMP (October 2015) as per the second dot point above – ‘EDQ-endorsed MIMP’;
2. the updated Movement IMP Version 8 (issued on 21 October 2022) as per the fourth dot point above – ‘Updated MIMP’.

The above two Movement IMP documents are most relevant to how the transport network will be developed for Yarrabilba in its entirety, as they encompass:

1. what is currently endorsed by EDQ; and
2. the most recent Yarrabilba master plan.

The broader transport strategies proposed as part of the Town Centre Precinct are reviewed in comparison to these two documents.

Proposed Development

The development yield and layout for the Town Centre Precinct will be determined as part of future development applications, however, is anticipated to consist of the following land use elements based on a total site area of approximately 214 ha:

- 45.8 ha of Major Centre Core consisting of:
 - Retail Core;
 - Conference Centre & Hotel;
 - Education;
 - Commercial;
 - Mixed Use-medium rise (6-8 storeys);
 - Mixed use – Lot to Medium Rise – 3-5 storeys;
 - Open Space;
 - Street Reserves;
- Remaining 168.2 ha consists of:
 - Major Centre Frame;
 - Mixed Use Low Rise 3-4 storeys;
 - Medium Density low and medium rise;
 - Urban Living semi-attached and detached;
 - MIBA Mixed Use;
 - Major recreation park;
 - Neighbourhood recreation park;
 - Linear park (greenspace corridor).

The difference between the modelled yields (2018) and the latest yields (2023) for the entire Town Centre development is as follows:

- latest residential yield is approximately 70% greater than the modelled dwellings;
- latest MIBA yield is approximately 30% less than the modelled MIBA yield;
- latest commercial yield is approximately 50% less than the modelled commercial yield;
- latest retail yield is approximately 30% less than the modelled retail yield;
- latest commercial + retail yield is approximately 45% less than the modelled commercial + retail yield.

It is therefore clear that the modelled development yields, which inform the 'Updated MIMP' and the latest road/intersection assessment (2019), and will subsequently inform the road sizing and intersection forms, are greater than what is currently anticipated. Therefore, the findings of the road/intersection assessment are conservative (i.e. they will reflect larger, not smaller, road/intersection requirements).

It is understood that the change to the development mix within the Town Centre Precinct is not expected to contribute to a larger yield for the overall Yarrabilba master plan. Additionally, due to the anticipated reductions in land use yields within the Town Centre Precinct, this is likely to contribute towards a lower volume of vehicle trips for the overall Yarrabilba development. Nevertheless, it is not expected that this change in yield will result in any noticeable change to traffic operations.

Road Network

The road network proposed as part of the Town Centre Precinct application (major road network and key collector street connections) has been revised since that shown in the 'EDQ-endorsed MIMP'. However, the road network that is now proposed remains generally consistent with the intent of the 'EDQ-endorsed MIMP', as well as the 'Updated MIMP' (issued 21 October 2022). It is also noted that the road network that is now proposed will achieve the same overall road hierarchy function, and similar external road network connections, when compared to both the 'EDQ-endorsed MIMP' and the 'Updated MIMP'.

Road Hierarchy

An extension of Yarrabilba Drive, as a 4-lane Sub-Arterial Road is proposed to extend (generally north-south) along the eastern boundary of the Town Centre precinct (and further south to Precinct 6). This higher order road intersects with another 4-lane Sub-Arterial Road (Town Centre East West Road, being a western extension of Wentland Drive) travelling generally through the centre of the Town Centre Precinct in an east-west orientation. Whilst the alignment and connecting intersections have changed, the overall route is generally consistent with the 'EDQ-endorsed MIMP' and the 'Updated MIMP' (issued 21 October 2022).

Travelling through the Town Centre precinct, generally along the northern boundary, in an east-west orientation, is a Centre Collector. As this road extends towards the west, it intersects with the Town Centre East West Road. It also extends to link up with a Major Collector which continues in a south-west direction providing a connection to the neighbouring Precinct 11 and Precinct 9. Whilst the alignment and connecting intersections have changed, the overall route is generally consistent with the 'EDQ-endorsed MIMP' and the 'Updated MIMP'.

The remaining road network comprises lower Residential Collectors and Access Streets. These lower order streets, including the Residential Collector Streets, are not referenced within either version of the Movement IMP (other than to show cross-section details) as this Precinct-level detail is not relevant for Master Plan-level Movement IMP reporting, but rather will be designed as part of future ROL applications.

Information requirement to be submitted as part of subsequent applications:

- Typical road cross sections proposed as part of the ROL, which are to be generally in accordance with the Movement IMP.

Cross Sections

It is anticipated that road cross sections for the Town Centre Precinct will be generally consistent with the typical sections in the Movement IMP noting that there will be some variations (as has occurred with previous applications/precincts). It is important to recognise that the Town Centre objectives and land uses will require road cross sections (particularly regarding pedestrians, cyclists, verges, and car parking) that vary from the typical cross sections for residential roads as documented in the Movement IMPs and delivered throughout other precincts in Yarrabilba. Where necessary, significant variations to the road reserve cross sections in the Movement IMP will be supported by traffic, engineering and/or urban design objectives.

Public Transport

A Regional Bus Route is proposed to travel generally east-west along Town Centre East West Road from the future intersection of Waterford-Tamborine Road/Dollarbird Drive/Town Centre East West Road and into/through the Town Centre Precinct. A second Regional Bus Route is proposed to travel north-south along Yarrabilba Drive adjacent to the eastern side of the Town Centre precinct. The route alignments differ from what is presented within the 'EDQ-endorsed MIMP' (because the Town Centre location has changed), however, it is consistent with the 'Updated MIMP' (issued 21 October 2022).

Linking up with the east-west Regional Bus Route are three Local Bus Routes within the Town Centre Precinct travelling generally in north-south orientations providing further public transport coverage to the south. This proposal differs from what was presented within the 'EDQ-endorsed MIMP' (because the Town Centre location has changed), however, it is generally consistent with the 'Updated MIMP'.

Locations for bus stops have not yet been confirmed for servicing this precinct and are currently shown indicatively, subject to TransLink input and agreement.

In regard to bus priority between the Town Centre and Waterford-Tamborine Road, it is currently proposed that specific bus priority measures will be provided on Town Centre East West Road. These are proposed at the western end of Town Centre East-West Road between Waterford-Tamborine Road and Wongawallan Drive (at intersections T and J2).

Bus priority is not proposed to be provided on Town Centre East West Road east of Wongawallan Drive (ie. at intersections HH2, K2, L2, LM or M). This decision is based upon SIDRA intersection analysis which has compared 'with bus priority' and 'without bus priority' scenarios to determine intersection performance differences. This resulted in identifying that those intersections with bus priority performed significantly worse than without bus priority. The impacts of 'with bus priority' would cause increased delays to pedestrians, cyclists and busses, as well as general traffic. In addition, SLR have consulted the Austroads '*Guide to Traffic Management Part 5: Link Management*' and have determined that with consideration of the possible volume of buses and projected volume of traffic volumes along Town Centre East West Road, bus lanes and bus priority is not warranted.

Reflective of the above recommendations regarding bus priority provisions, this will result in slight departure from the current EDQ approval condition that requires bus priority to be delivered on Town Centre East-West Road between Waterford-Tamborine Road and the Town Centre Precinct. As such, further engagement with EDQ and Translink will be needed to obtain approval with this proposal.

Information requirement to be submitted as part of subsequent applications:

- Details of intersection operation 'with bus priority' and 'without bus priority'.
- Summary of Austroads '*Guide to Traffic Management Part 5: Link Management*' as related to warrants for bus lanes and/or bus priority.
- At the time the context plan is submitted, the potential bus routes will be identified on the context plan; and
- At the time of an ROL application within the Town Centre Precinct, the potential bus stops will be identified (when the subdivision phase is occurring).

Active Transport

The Town Centre and Surrounds precincts will deliver a significant network of pedestrian and cycle pathways. This pathway network will include a variety of pathway forms including Separated Cycle Tracks, Shared Paths and Pedestrian Paths.

The current concept includes a two-way separated cycle track as a Commuter Cycle Route on the Town Centre Connection Road and the Town Centre East West Road, which travel generally north-south and east-west into and through the centre of the Town Centre Precinct. Supplementing this will be 3.0m shared paths that extend towards the south-west, as well as along the eastern precinct boundary (Yarrabilba Drive) in a north-south orientation. A network of 2.5m shared paths is also intended throughout the outer extents of the precinct. Regarding the Commuter Cycle Routes proposed, this slightly differs (in alignment) from the 'EDQ-endorsed MIMP'. The current proposal is generally consistent with the 'Updated MIMP' (issued on 21 October 2022).

Information requirement to be submitted as part of subsequent applications:

- With the first development application within the precinct, a concept plan for the major local active transport routes for the Town Centre and Surrounds precincts shall be provided; and
- Details of all active transport paths shall be provided with each ROL application outlining the location and width of any proposed pathways, and its purpose for pedestrians, cyclists or shared.

Summary

In summary, it is not likely that the transport network for the Town Centre Precinct will result in any significantly different, nor unacceptable, traffic or transport outcomes from that which has already been identified as part of previous (2019) 'EDQ-endorsed MIMP', nor the 'Updated MIMP' (issued 21 October 2022).

STRATEGY 14:

NATURAL ENVIRONMENT OVERARCHING SITE STRATEGY

Strategy

The *Natural Environment Overarching Site Strategy* (NEOSS) (Natura Pacific, 22 February 2023) provides an overarching plan that pulls together the individual Infrastructure Master Plans (IMP), such as the Fauna Corridor Infrastructure Master Plan (FCIMP) (Natura Consulting, 3 March 2023), and site assessments addressing vegetation and fauna management. While separated for the purpose of strategy discussion below, the management for these components is typically integrated for construction or post-construction outcomes. The Town Centre and Surrounds strategies pertaining to each of these key components are discussed separately below and constraints are identified in Natura Pacific Figures 1 through to 5. Also detailed below are a number of assessments/reports to be completed for the Town Centre and Surrounds which are to be certified and endorsed with the subsequent applications.

Buffers and Determining the Extent of Works

A number of setbacks to environmental values are identified within the IMP/OSS and planning documents and these are consistent with those used in this CPAS. The setbacks and buffers applicable to the Town Centre and Surrounds area are summarised in the following text and presented graphically in the subsequent five figures.

Figure 1: Overall Developable Area

- Indicates overall developable vs non-developable areas (i.e. fauna corridor and greenspace areas)
- Indicates potential development constraint area (previous greenspace area to be developed)

Figure 2: Wetlands/waterway buffers (Table 3 of the *Yarrabilba Stormwater Infrastructure Master Plan (2023)*, prepared by DesignFlow:

- 15 m to centreline of minor creeks and drainage lines (including for works protection in neighbouring precincts)
- 30 m to centreline of major creeks with defined bed and banks and permanent flow
- 50 m to the defined bank / edge of wetlands of local significance

Figure 3: Fauna Corridor construction setbacks (section 4.3.1 of the Fauna Corridor Master Plan)

- 10 m construction setback to mitigate damage to retained tree root shields within the fauna corridor (for works protection only in neighbouring precincts)

A number of additional setbacks/buffers, outside of those identified above are also applied within this CPAS:

Figure 4: Retained Regional Ecosystem (RE) vegetation and other retained vegetation construction setbacks:

- 10 m construction setback to mitigate damage to retained tree root shields
- Exceptions occur in instances such as parks where retained vegetation is incorporated with recreational areas or where other park infrastructure is approved. In these cases, tree protection zones (TPZs) are calculated for individual trees by the project arborist, in accordance with the most recent Australian Standards.

Figure 5: Bushfire setbacks (identified through expert advice from the Bushfire Management Consultant):

- 10 m construction setback to mitigate for areas of Low Bushfire Hazard rating (not applicable to Town Centre as all bushland is 'Medium Hazard')
- 15 m construction setback to mitigate for areas of Medium Bushfire Hazard rating (areas of broader vegetation whereby surrounding dwellings within 100m will require BAL (Bushfire Attack Level) construction ratings. BAL ratings are expected to achieve a BAL-19 or less.
- 35 m to sites where the land use is for 'Vulnerable uses, community infrastructure and hazardous materials' (i.e. childcare centre, community care centre, detention facility, education establishment, hospital, nature-based tourism, relocatable home park, rooming accommodation, residential care facility, resort complex, retirement facility, tourist park, emergency services, hospital, hazardous chemicals that are present in the levels or the quantities that would constitute the use being a hazardous chemical facility, hazardous materials that are present in the quantities identified in the Work Health and Safety Regulation, schedule 15)
- These setbacks achieve a tolerable risk level when assessed in accordance with the Bushfire Resilient Communities Technical Reference Guide 10/19.

These setbacks are presented collectively in Figure 1 and have been used to map the extent of developable area.

Figure 1: Overall Developable Area

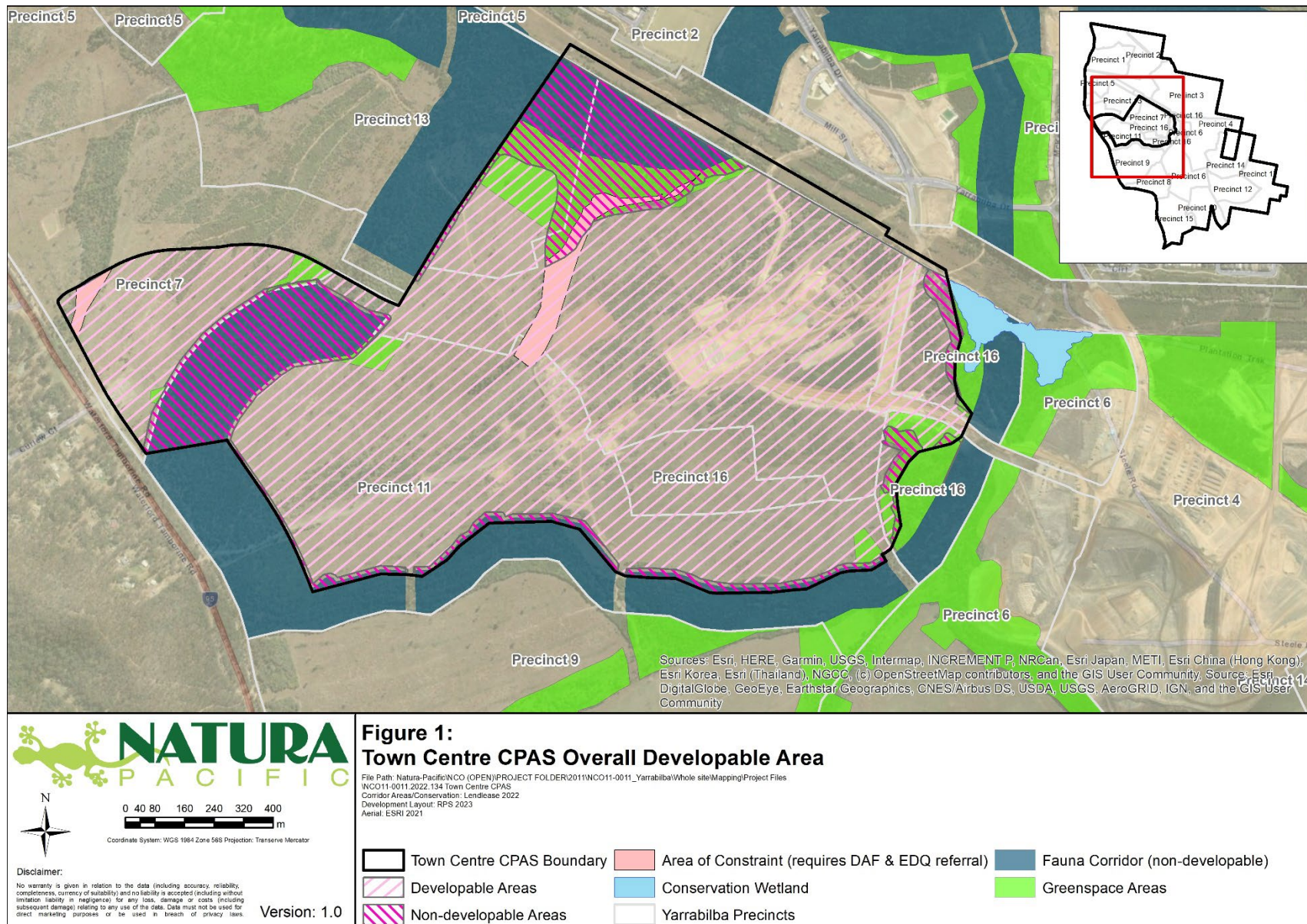


Figure 2: Waterway Setback

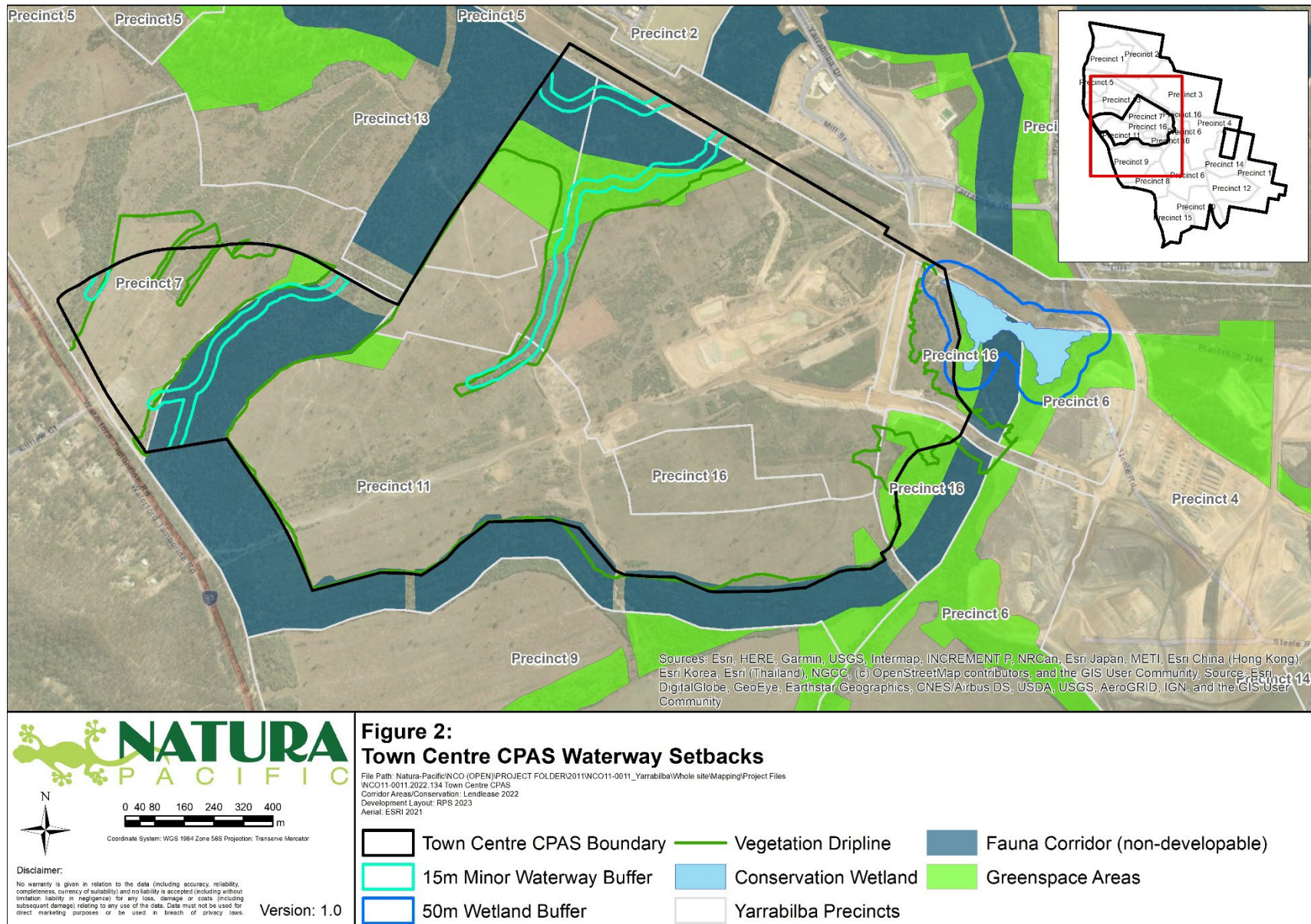


Figure 3: Fauna Corridor Setbacks

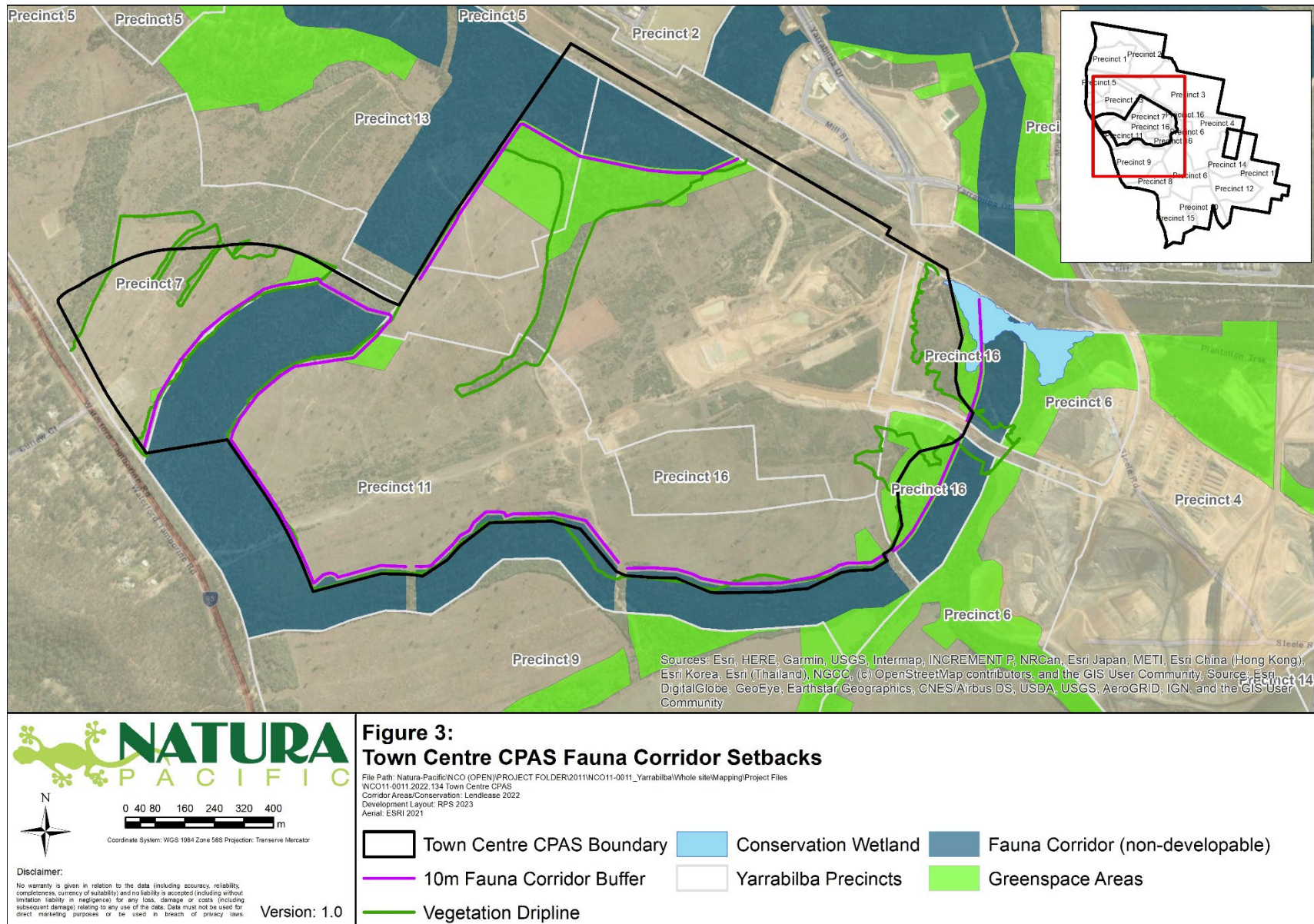


Figure 4: Vegetation Construction Setbacks

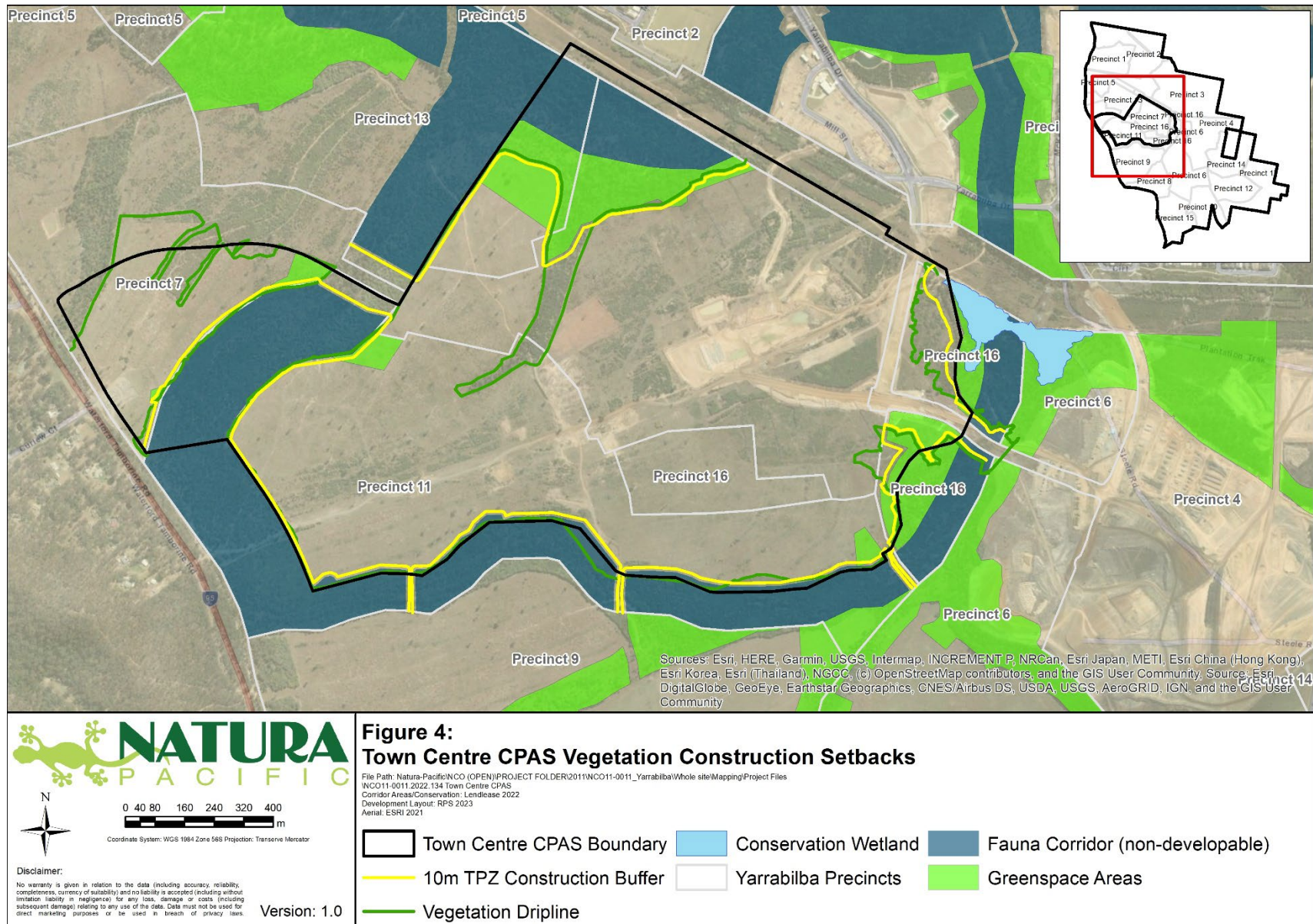
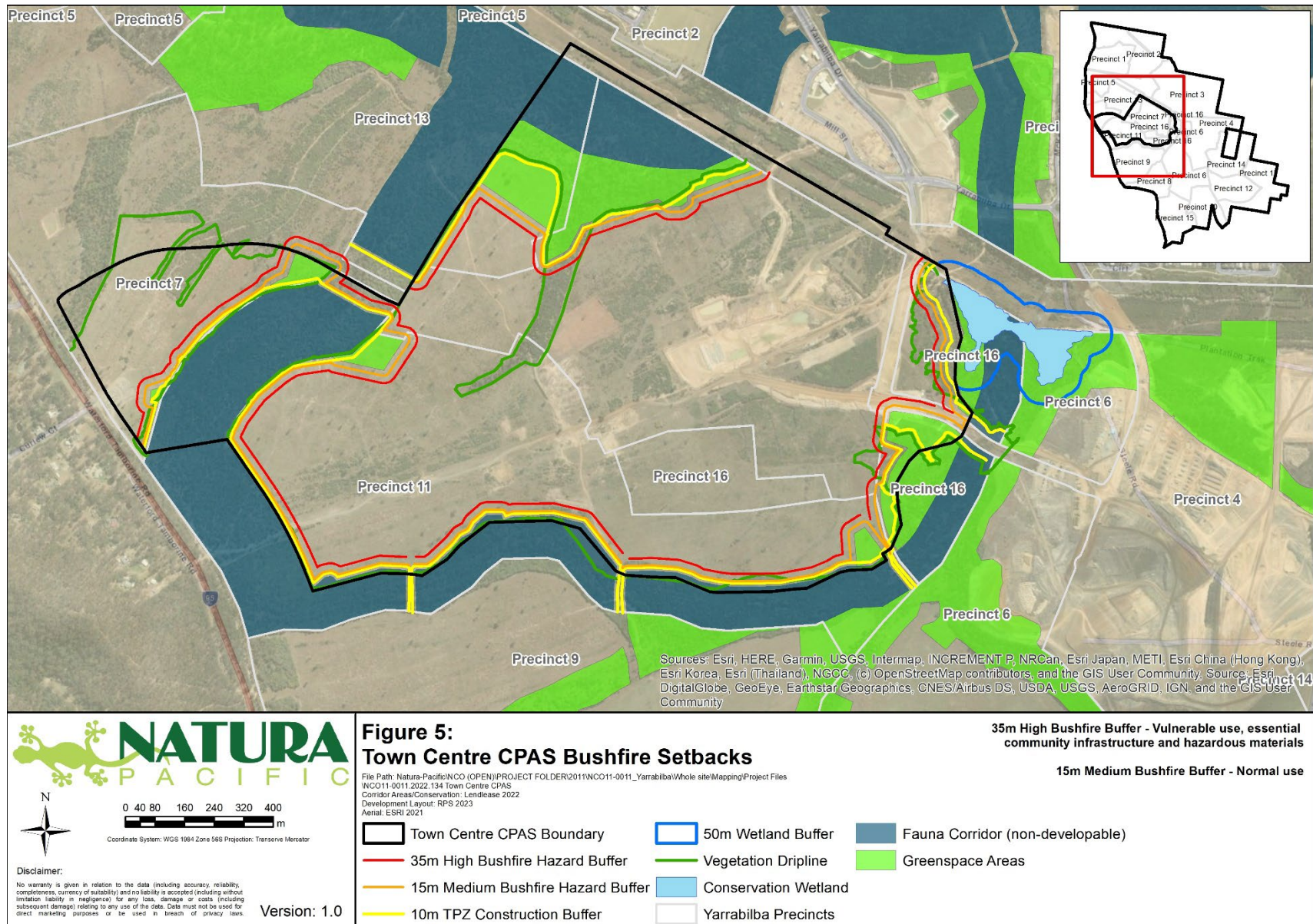


Figure 5: Bushfire Setbacks



VEGETATION

Strategy

Provide vegetation management actions which integrate the protection and enhancement of the floristic values associated with the fauna corridor, parks, wetlands, waterways and natural open spaces, in order to meet the objectives identified in Natural Environment Overarching Site Strategy, including:

- Weed control (bio-security) and revegetation
- Protection and retention of significant trees
- Assessment for and management of (where identified on site) significant flora species
- Bushfire management
- Assessment and management of remnant vegetation (Regional Ecosystems)
- Rehabilitation and monitoring/compliance (EPBC Act Koala Habitat and State MSES values using modified transect surveys)

Key Issues

Vegetation management actions to be provided within or associated with the Town Centre and Surrounds are highlighted in the following areas:

- Setbacks between development footprint and:
 - Fauna corridor, including 10 m soft interface (incorporating a batter, park, stormwater treatment/flood detention, verge, walking trails, road etc) or minimum bushfire setback, whichever is greater.
 - Greenspace corridors, including retaining extent of mapped drip line vegetation and waterways setbacks as described in Table 3 of the Yarrabilba Stormwater Infrastructure Master Plan (2023) prepared by Design Flow
 - Road/crossing clearing requirements incorporating retention of or offset provisions for significant sized trees
- Road/crossing design in accordance with Natural Environment OSS and Fauna Corridor IMP documents, which also allows base/low flow level ground and surface water dispersal affecting vegetation retention or supports rehabilitation of degraded areas with improved vegetation communities. This is also to include supporting ecological assessments/report which addresses specific design requirements and includes preliminary civil designs as part of the Development Application.

Vegetation management will generally be undertaken in accordance with the *Yarrabilba Development: Natural Environment Overarching Site Strategy* (Natura Consulting, 23 February 2023) which highlights vegetation management procedures with regards to the Voluntary Declaration over secured sections of the Fauna Corridor, greenspace retention requirements, processes for managing wetlands and waterways and associated clearing approvals, revegetation, monitoring/compliance and design requirements. For this precinct, vegetation management is largely connected to, and integrates with, the fauna corridor, greenspace corridor, wetland and waterway setbacks and passive/recreational space.

Consideration for gazetting future ownership of proposed conservation/recreation land:

- Greenspace corridor/other parks: shall be transferred to Council in fee simple as trustee in accordance with relevant future PDA development approvals.

Vegetation management shall be delivered in accordance with:

- Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs – EDQ PDA Guideline No. 17
- Environmental values and sustainable resource use – EDQ PDA Guideline No. 14
- Development interfaces – EDQ PDA Guideline No. 18
- Tree Retention in Residential Subdivisions - EDQ PDA Practice Note No. 6 (where applicable)

FAUNA

Strategy

Provide design components and/or management actions which integrate fauna movement and habitat opportunities within the fauna corridor, parks, waterways, and natural open spaces as identified in the Fauna Corridor Master Plan. These include:

- Habitat rehabilitation and monitoring/compliance (for native species but with a focus on Koala)
- Road crossing design to allow fauna movement and fish passage (in particular the major road crossing of 200m section of fauna corridor)
- Protection and retention of significant or specific habitat trees
- Offset of significant fauna habitat trees through installation of habitat augmentation (i.e. nest boxes)
- Assessment for and management of all fauna species throughout pre construction and construction periods
- Feral animal monitoring and management

Certification of ecological compliance will be provided as part of each Development Application.

Key Issues

Fauna management actions and strategies associated with the Town Centre and Surrounds include:

- Development and/or enhancement of Fauna Corridors with functionality and connectivity as key principles
- Fauna friendly design aspects such as using food and shelter trees in parks and street scaping, use of fauna friendly fencing, fauna crossings and fauna/fish passage
- Ensuring bushfire or bushfire management practices do not pose significant risk to fauna or fauna habitat
- Fauna pre-clearance surveys and spotter-catching during vegetation clearing works
- Rehabilitation/revegetation of fauna corridors/waterways/greenspace corridors and monitoring/compliance
- Habitat augmentation to offset the removal of significant habitat trees (i.e. nest box installation within fauna and greenspace corridors)

Fauna management will generally be undertaken in accordance with the Yarrabilba Development: Fauna Corridor Infrastructure Master Plan (Natura Pacific, 2023) which highlights fauna management procedures with regards to clearing direction, revegetation, monitoring/compliance, Species Management Program assessment and approval process, design requirements and education. The Fauna Corridor Infrastructure Master Plan aims to integrate closely with the Natural Environment Overarching Site Strategy to achieve a range of goals while optimising use of space and resources available for fauna with vegetation management and stormwater quality/flood mitigation areas. For this precinct, fauna management is largely connected to, and integrates with, retained vegetation areas which incorporate waterway setbacks, passive/recreational space and Koala habitat protection measures such as the fauna corridor.

The fauna corridor and conservation areas within the northern and western sections of the Town Centre at the road crossing include areas mapped as 'Koala Habitat to be Retained' and are highlighted under the EPBC conditions as 'offset areas' and secured under the Voluntary Declaration as 'conservation'. Rehabilitation works in these areas are to address both the general fauna habitat requirements highlighted in EDQ plans and Koala habitat requirements identified in the 'Declared Area Management Plans that were approved under the Voluntary Declaration that secures these areas as per the requirement of the EPBC approval conditions.

Designs of road crossings and services are to be supported by ecological advice (i.e. arborist report, fauna assessment and vegetation management plan) and preliminary civil designs submitted as part of Development Applications. Additionally, waterway/fauna corridor crossing design will incorporate vegetation retention (i.e. its placement will be provided in a location where minimal disturbance is required) and facilitate fauna movement and fish passage.

Fauna management shall be delivered in accordance with:

- Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs – EDQ PDA Guideline No. 17
- Environmental values and sustainable resource use – EDQ PDA Guideline No. 14
- Development interfaces – EDQ PDA Guideline No. 18

Certification of ecological compliance will be provided as part of each Development Application.

Supporting Information

Reporting requirements and timing

Documentation type	Details	Instances when required	Timing of delivery
Vegetation drip-line mapping	<ul style="list-style-type: none"> Ground-truthed vegetation extent mapping to determine setbacks to protect extant vegetation. 	Per context area	Prior to or in conjunction with initial design
Vegetation Management Plan	Flora assessment and management including sections on (where applicable): <ul style="list-style-type: none"> Tree survey of proposed clearing locations Mapping of tree locations Tree protection/retention measures and management of retained trees Tables containing tree data Other flora species management 	Per context area or per clearing area. Where clearing of native vegetation is required.	Prior to clearing works

Documentation type	Details	Instances when required	Timing of delivery
	<ul style="list-style-type: none"> Implementation of recovery actions for any confirmed protected species (pursuant to the <i>Nature Conservation Act 1992</i> (NCA)) <p>Fauna assessment and management including sections on (where applicable):</p> <ul style="list-style-type: none"> Koala, kangaroo and other fauna species management Feral animal management Fish passage assessment where waterway crossing are required Implementation of recovery actions for any confirmed protected species and determination of required offsets (e.g. nest-box installation) 		
Spotter Catcher Report	<ul style="list-style-type: none"> Prior to commencement of vegetation clearing, fauna spotter to inspect the area for any active fauna breeding places, potential habitat and threatened species Pre-clearance reporting of results and further approvals and/or management actions required prior to/during clearing During clearing works, an Department of Environment and Science (DES)-approved spotter catcher is to undertake onsite fauna management actions (i.e. fauna capture and translocation) Post clearing reporting of results, fauna species translocated and outcomes of fauna management actions. 	Per context area or per clearing area. Where clearing of vegetation or other structures providing fauna habitat is required.	During and after clearing works
Flora trigger map protected plant survey (as per requirements under the <i>Nature Conservation Act 1992</i>) for Rare, Vulnerable Near Threatened species)	<ul style="list-style-type: none"> Follow survey and reporting methodology outlined in the NCA Protected Plant Survey guidelines produced by DES Where protected species (plants) are identified, provide a Flora Management Plan and implement recovery actions Gain permits from Eco-access (Department of Resources) for clearance of threatened flora (where applicable) and provide necessary offsets 	Per context area or per clearing area. Where clearing of native vegetation is required.	Prior to and during OPW
Waterway and Fauna Corridor crossing/services design	<ul style="list-style-type: none"> Design road waterway and fauna corridor crossing to allow Koala and other fauna movement Fish passage assessment and design Rehabilitation approaches to entry and exit points of underpasses <p>Review potential impact of crossing on extant vegetation long term health:</p>	Where road or other crossings traverse waterways or Fauna Corridors	Conceptual fauna crossing during DA Detailed design and certification during OPW

Documentation type	Details	Instances when required	Timing of delivery
	<ul style="list-style-type: none"> Ground/storm water impact assessment Base-flow water level assessment of surface and ground water within fauna and waterway corridors 		
Bushfire Management Plan	<p>Review potential impact of bushfire with a number of objectives:</p> <ul style="list-style-type: none"> Protect life and property Minimise bushfire risk within the development footprint and neighbouring properties Reduce unauthorised activities within the site through good management Identify and manage future vegetation areas within the site to improve their ecological diversity and sustainability Reduce the considerable incident of unplanned fire on the site by maintaining reduced fuel loads over future development areas within the site Address model SPP Code. 	Per context area	At DA Stage and to address the SPP Model Code
Rehabilitation Management Plan	<p>Fauna corridor, Regional Ecosystem, offset area and 'Koala Habitat to be Retained' rehabilitation:</p> <ul style="list-style-type: none"> Strategic vegetation and habitat restoration methods and outcomes Fencing requirements Weed management Promotion and use of 'Connecting Communities Native Seed Project' on-site to collect, propagate and replant native tubestock of local provenance Maintenance timing and schedules Rehabilitation monitoring plan 'As constructed' data demonstrating compliance with any offset requirements and certification of completion of works. 	Per context area or sub context area	Broad conceptual mapping during DA Detailed design and certification during OPW
Ecological equivalence assessment	<ul style="list-style-type: none"> Undertaken where offsets are required for clearing 'significant vegetation' or other significant ecological value, which is otherwise unavoidable. 	Per context area	Prior to or in conjunction with OPW
Kangaroo management strategy	<ul style="list-style-type: none"> Mitigation of impacts to kangaroos will be addressed within the construction site Review of security fencing location, access and release points 	Per context area	During OPW

Documentation type	Details	Instances when required	Timing of delivery
	<ul style="list-style-type: none"> Contractor education 		
Koala habitat and offset area monitoring/ compliance report	<ul style="list-style-type: none"> Long term monitoring of koala habitat and offset areas to ensure benchmarks are being met Certification of results Reporting to Economic Development Queensland (within the Department of State Development, Infrastructure, Local Government and Planning) and the Australian Government Department of Climate Change, Energy, the Environment and Water pursuant to the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act). 	Per context area	Post OPW (timing varies, outlined in approved Koala Habitat Rehabilitation Monitoring Plan)
Awareness and education	<p>Community and/or contractor education documentation:</p> <ul style="list-style-type: none"> Interpretive signage Responsible pet ownership Responsible gardening and plant selection Appropriate and inappropriate activities in and around fauna corridors 	Per context area	Prior to and during OPW
Certification of ecological compliance	Provided within individual reports listed within this table or as a separate certification letter	Per context area or individual design component i.e. for the design of fauna passage within road crossings	As part of each Development Application



CONTEXT PLAN AREA STRATEGY

Yarrabilba - Town Centre and Surrounds