



INFRASTRUCTURE DELIVERY PLAN – APPIN

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Infrastructure Delivery Plan – Appin

Walker Corporation

Prepared for



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Executive Summary

Walker Corporation Pty Ltd and Walker Group Holdings Pty Ltd (together the **Proponent**) has prepared a Proposal to support the rezoning of its Appin landholdings and several adjacent privately owned properties within the Greater Macarthur Growth Area's Appin Precinct from rural to urban.

The Appin and Appin North Precincts have been identified by the NSW Department of Planning and Environment (**DPE**) as having capacity to deliver approximately 21,000+ new homes to accommodate Sydney's population growth, and the Proponent's holdings can contribute approximately 12,000+ of these new homes.

New and augmented utilities and State and local infrastructure will need to be provided to support the development stages.

This Appin Infrastructure Delivery Plan (**IDP**):

- Identifies the infrastructure required to support the entire Appin and Appin North precincts, with more specific detail for the proposed Appin (Part) Precinct rezoning and the land known as "Appin (Part) Precinct" which forms the initial stages of development including Appin (Part) Precinct Release Area 1,
- describes the required infrastructure by infrastructure type and responsibility,
- sets out how the infrastructure will be provided and the particular legislative mechanisms that can be used to ensure they are provided,
- outlines a preliminary staging schedule for the infrastructure that aligns with the development of the land for housing and other purposes,
- identifies the local infrastructure for Appin (Part) Precinct Release Area 1 that may be included in a site-specific section 7.11 contributions chapter of the Wollondilly Shire Council's (**Council's**) current contributions plan, or in a planning agreement negotiated between the proponent and the Council, and
- outlines a proposed arrangement and assignment of responsibility for the ongoing management, ownership and maintenance of different types of local infrastructure following the completion of each stage of the development.

The IDP has been requested by the Council to assist in consideration of the Proposal. While the IDP is comprehensive in that it covers all the infrastructure needs of the development, it focuses on what, when and how local infrastructure will be provided and maintained over the life of the infrastructure.

The IDP has been prepared based upon the draft master plan and supporting studies for the Proposal, and as such, the details contained in the report and the proposed infrastructure schedule including size, location, staging/timing of delivery, and responsibility for maintenance and ownership are draft and may be subject to further review and amendment during the planning proposal process.

The IDP articulates the infrastructure delivery pathways to deliver the proponent's vision for Appin and confirms that the proposal is able to be supported in its current form.



1 Background

1.1 Introduction

GLN Planning have been engaged by the Proponent to prepare a IDP to support the Appin and North Appin Precincts Indicative Plan

The Appin and North Appin Precincts are the southernmost land release areas of the Greater Macarthur Growth Area (**GMGA**) as shown in **Figure 1** over page.

The Appin and North Appin Precincts immediately neighbours the suburbs of Gilead to the north, Wilton to the south and Douglas Park to the west. Dharawal National Park, a large protected national park, is located to the east. The site is predominately bound by waterways, with Maltaty Creek to the north, George's River to the east, Nepean River to the west and Cataract River to the south.

1.2 IDP purpose and scope

The primary purpose of this IDP is to support the Council and DPE in assessing the Proposal which seeks to rezone land for urban purposes as discussed in more detail in **Section 2** of this report. The IDP does this by:

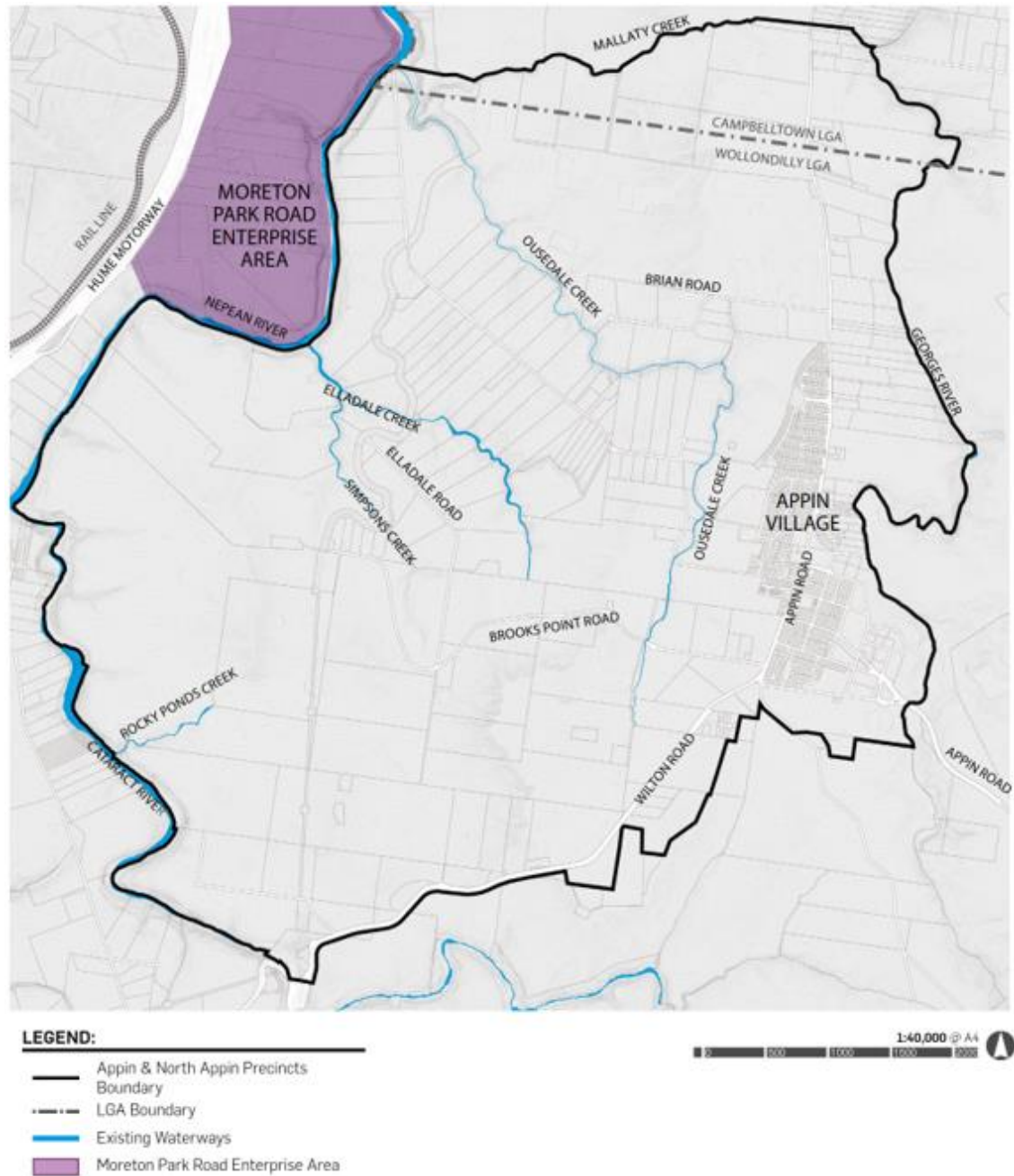
- providing an overall picture of the infrastructure needed (both on-site and off-site) to support the proposed Appin development, with a particular focus on the Appin (Part) Precinct Sub Precinct development, and
- proposing how the site's local infrastructure will be provided and maintained into the future.

The core of the IDP is a schedule of proposed infrastructure that is intended to:

- assist the Council in preparing a site-specific s7.11 infrastructure contributions plan for Appin (Part) Precinct Release Area 1 and/or consideration of a planning agreement to deliver the infrastructure for Appin (Part) Precinct Release Area 1, concurrent with the consideration of the planning proposal, and
- assist the proponent, Council and other infrastructure providers when negotiating agreements for the provision of infrastructure.

The IDP and infrastructure schedule also address the following:

- proposed responsibilities and mechanisms for the delivery of the required infrastructure,
- proposed infrastructure ownership and maintenance responsibilities following the delivery of the infrastructure, and
- likely staging of the urban development on the site, to inform the alignment and timing of the components of the proposed infrastructure network.



APPIN & NORTH APPIN PRECINCTS SITE PLAN

DATE: 06-10-22
REVISION NO: 8

Figure 1 – Boundary of Appin and North Appin Precincts

Source – Urbis

The IDP does not include cost estimates for the infrastructure required to support the proposed development given the likelihood that further refinement will be required to address matters raised



during the assessment of the planning proposal by Council and DPE. The proponent expects to provide the Council with indicative draft costing information under separate cover to help inform Council's contributions plan preparation process and will collaborate with Council to refine these details during the assessment of the planning proposal.

Wollondilly Shire Council staff have been consulted and have provided advice on what the IDP should address. This advice has been taken into consideration in the preparation of this document.

1.3 Documents referenced in this report

The IDP is informed by the following specialist studies and planning and infrastructure reports that have been prepared to support the proposal:

Table 1 - Documents referenced in this report

Supporting Report	Prepared by	Ref and dated
Urban context report	Urbis	October 2022
Social Infrastructure and Open Space Assessment	Urbis	October 2022
Landscape Master Plan	Urbis	October 2022
Strategic Transport Assessment	WSP	October 2022
Infrastructure Phasing Plan	IDC	October 2022
Water Cycle Management Report	J. Wyndham Prince	October 2022

1.4 Methodology and approach

The preparation of this IDP has been informed by the following key steps:

- Consulting with the proponent, project consultants, and staff from Wollondilly Shire Council.
- Review of the planning proposal documentation and relevant specialist studies and reports, including details of consultations with infrastructure agencies.
- Reviewing and confirming the proposed residential development dwelling and lot mix, forecast dwelling occupancy rates and total population on the planning proposal site.
- Reviewing the existing local and State infrastructure contributions plans which are relevant to the site and region.
- Listing the on-site and off-site infrastructure required to support the development, establishing the timing of delivery where possible (linked to development staging), responsibility for delivery/funding, and proposed ownership/maintenance responsibilities for the proponent's Appin (Part) Precinct Release Area 1 development.



1.5 Assumptions and limitations

This IDP brings together the information currently available from the specialist studies and reports prepared for the Proposal, along with the results of engagement with key infrastructure agencies regarding the infrastructure needs and provision for the Proposal.

It is important to note the following assumptions and limitations when reviewing this IDP:

- IDPs are prepared in an iterative manner. The infrastructure requirements and proposals are based upon the draft master plan and supporting studies submitted with the planning proposal and may be subject to further refinement as the planning proposal is assessed and updated over time, including changes to infrastructure requirements, scope and staging.
- Further consultation with Council and infrastructure agencies may alter the timing and scope of the enabling infrastructure to support the Proposal.
- The framework for determining and levying contributions for State and regional infrastructure and the identification of key regional infrastructure priorities remains unclear and could change during the course of the Council and DPE considering the Proposal.



2 The Proposal and anticipated development

2.1 The Proposal

Greater Sydney's population is projected to grow to approximately 6.1 million by 2041 – over a million more people than currently live in the region.

The NSW Government has identified Growth Areas as major development areas that will assist in accommodating this growth. The GMGA is one such growth area and is a logical extension of the urban form of south-west Sydney. The GMGA is divided into precincts. The Appin Precinct and North Appin Precinct are the southernmost land release precincts of the GMGA. The goal is to deliver 21,000+ dwellings.

The land is to be rezoned and released for development to achieve this goal. A submission has been prepared by the Proponent to rezone 1,378 hectares of land (the **site**) within the Appin Precinct from RU2 Rural Landscape to the following zones:

Urban Development Zone

Zone 1 Urban Development (UD)

Special Purposes Zone

Zone SP2 Infrastructure (SP2)

Conservation Zone

Zone C2 Environmental Conservation (C2)

The zonings are shown on the Appin (Part) Precinct Plan (the **precinct plan**). 'The precinct plan' will be incorporated into the *State Environmental Planning Policy (Precincts – Western Parkland City) 2021* and contain the provisions (clauses and maps) that will apply to 'the site.' 'The precinct plan' envisages the delivery of 12,000+ new homes.


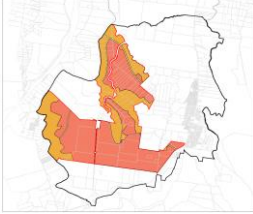
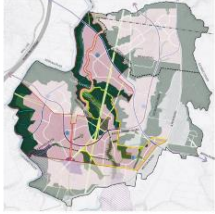
A structure plan has been prepared for the site and is shown on the Appin (Part) Precinct Structure Plan (the **structure plan**). It identifies staging and the first stage to be developed – Release Area 1. Release Area 1 is anticipated to deliver 3,500+ dwellings.

The submission is aligned with strategic land use planning, State and local government policies and infrastructure delivery. The development potential is tempered by a landscape-based approach that protects the environment and landscape values, shaping the character of new communities. A series of residential neighbourhoods are to be delivered within the landscape corridors of the Nepean and Cataract Rivers, supported by local amenities, transit corridors and community infrastructure.

The submission includes a hierarchy of plans. The plans and their purpose are summarised in **Table 2.**



Table 2 – Title and Purpose of Plans

<p>(1) APPIN & NORTH APPIN PRECINCTS INDICATIVE PLAN</p> <p><i>Broader context & for information purposes only. It has no statutory weight. It identifies:</i></p> <ul style="list-style-type: none"> • Higher-order transport network • Centres hierarchy • School sites • Conservation areas • Residential areas • Cultural sites and connections 	<p>(2) APPIN (PART) PRECINCT PLAN (THE PRECINCT PLAN)</p> <p><i>It shows the land proposed to be rezoned (the site) and incorporated into a new schedule in the Western Parkland City SEPP 2021.</i></p> <p><i>The precinct plan contains the development provisions (clauses and maps) applicable to the site and is used in assessing development applications.</i></p>	<p>(3) APPIN (PART) PRECINCT STRUCTURE PLAN (THE STRUCTURE PLAN)</p> <p><i>Structure plan for the site, showing staging of release areas and Release Area 1.</i></p> <p><i>It illustrates land use components including (but not limited to):</i></p> <ul style="list-style-type: none"> • Low and medium-density residential • Retail and employment centres • School • Open space • Drainage network/basins • Transport network
 <p>(21,000+ dwellings)</p>	 <p>(12,000+ dwellings)</p>	 <p>Release Area 1 - (3,500+ dwellings)</p>

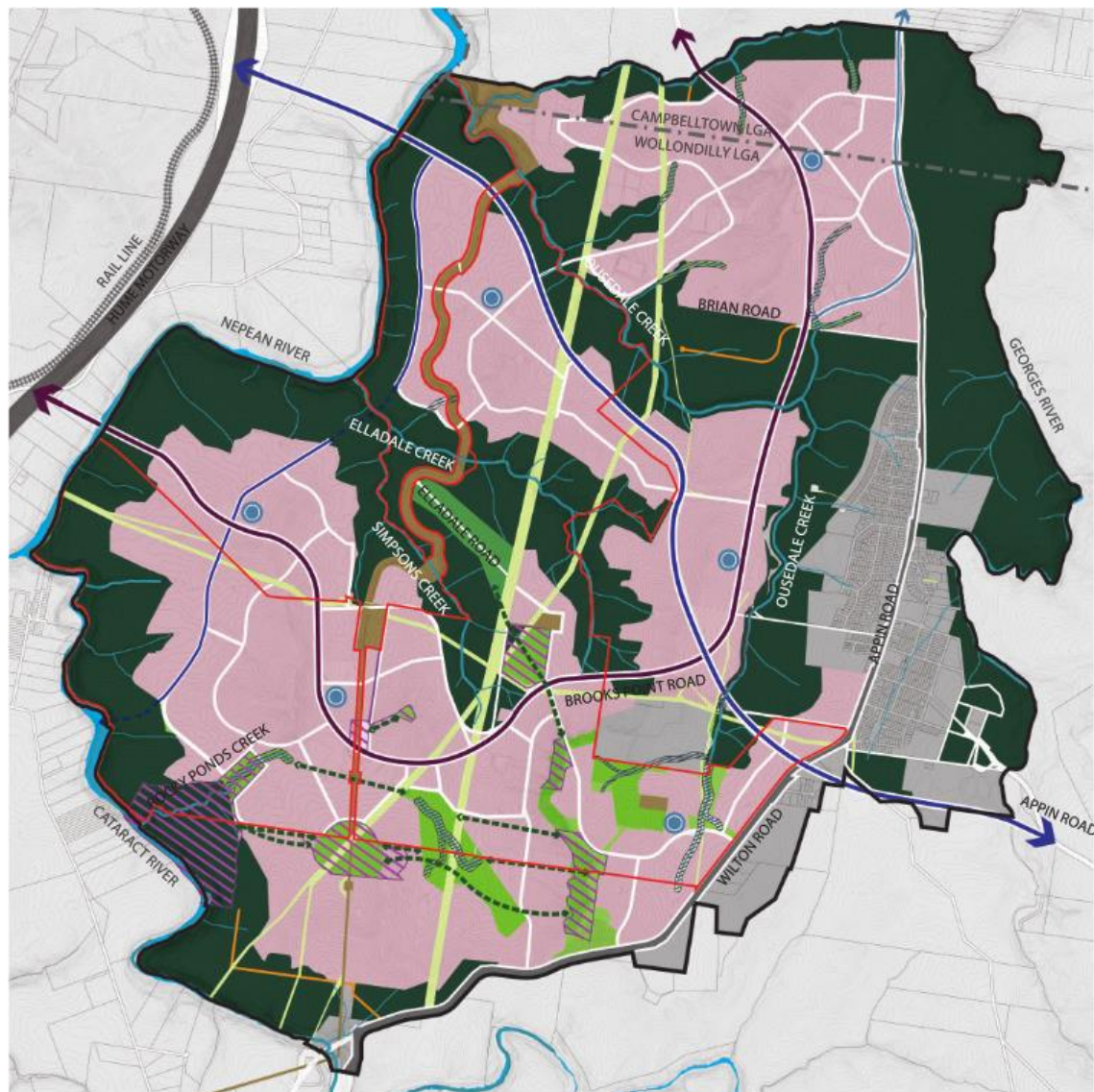
Source – Urbis

2.1.1 Appin Precinct

The Appin Precinct is the southern most precinct of the Greater Macarthur Growth Area. It comprises two parts:

- Appin
- North Appin

This proposal includes an Indicative Plan for the Appin and North Appin Precincts to understand the broader spatial form and design framework for Appin. The land to which the Indicative Plan applies is shown at **Figure 2** and the key attributes of the Indicative Plan area are shown at **Table 3**.



LEGEND:

- | | | |
|---|---|-------------------------------|
| — Appin & North Appin Precincts Boundary | ↔ Green Links | — East-West Connection Road |
| — Appin (Part) Precinct Boundary | ▨ Riparian Corridor | — Public Transport Corridor |
| - - - LGA Boundary | ▨ Planned State Heritage Listing Sites | — North-South Connection Road |
| — Waterways | ▨ Heritage Items | — Appin Bypass |
| ■ C2 Conservation Land* | ■ Residential | — Road Connection - By Others |
| ■ District Open Space | ■ Excluded Land | — Collector Roads |
| ■ Regional Open Space | ● Mixed Use Centres (including retail/commercial, schools and open space) | |
| ■ Easements (Potential for active and passive recreation) | | |

* Where located outside Appin (Part) Precinct Boundary this represents Strategic Conservation Planning SEPP - Avoided Land (August 2022).

APPIN & NORTH APPIN PRECINCTS INDICATIVE PLAN

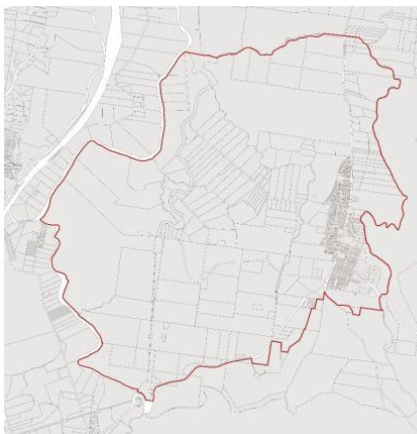
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Figure 2 – Appin and North Appin Precincts Indicative Plan

Source – Urbis



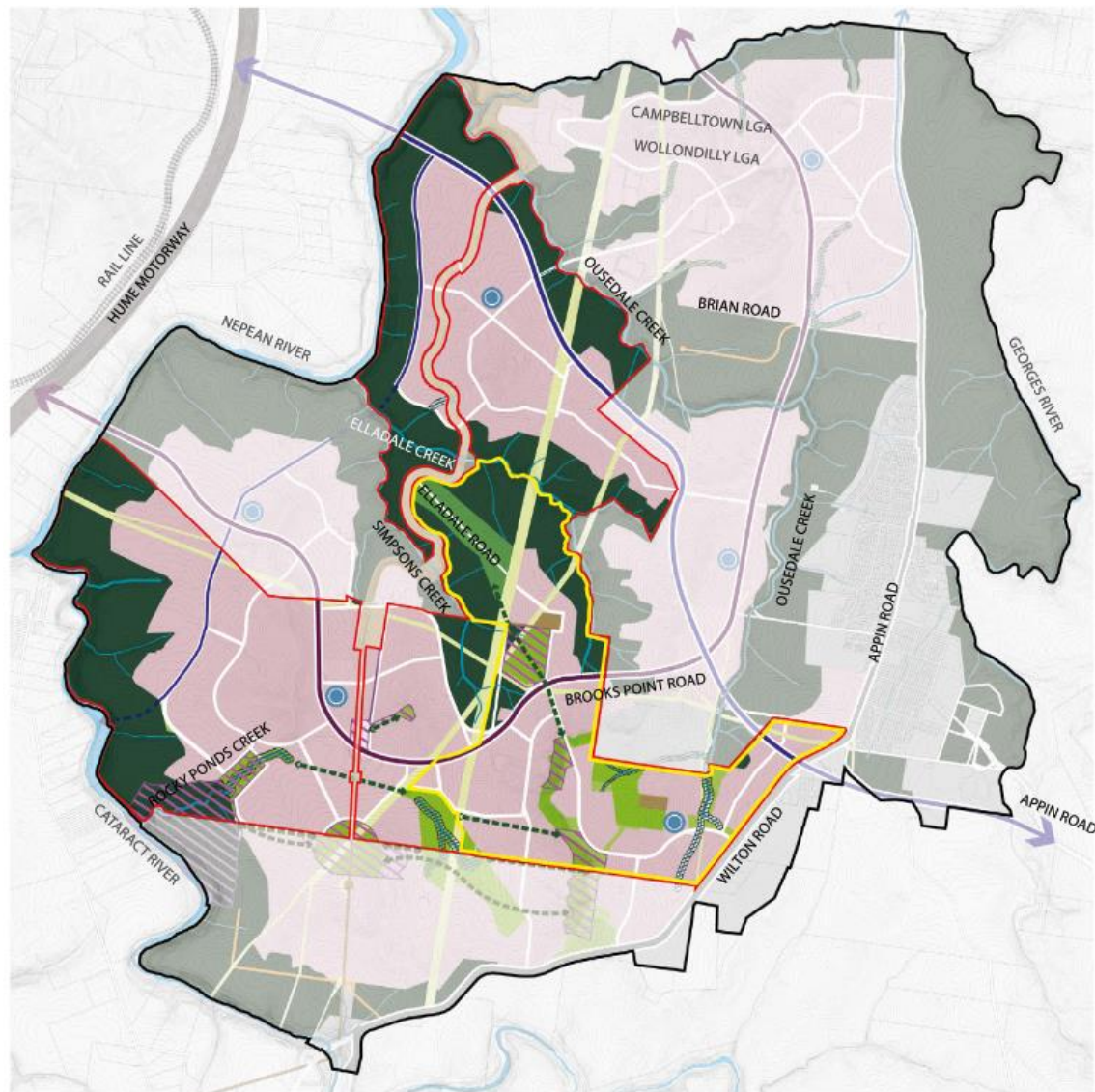
Table 3 - Appin and Appin North Precincts – summary of key attributes

Location		Key Attributes	
Appin Precinct		Area	3,826 ha
		LGA	Part Wollondilly Part Campbelltown
		Proposed # Dwellings	21,000+
		Proposed Population	65,000+

Source – Urbis

2.1.2 Appin (Part) Precinct Plan

The Appin (Part) Precinct is situated within the the core of Appin. The Proposal includes the Precinct Plan for the Appin (Part) Precinct which establishes the land zoning and statutory framework for future development within the Appin (Part) Precinct as shown at **Figure 3** and the key attributes of the Appin (Part) Precinct Structure Plan area are shown at **Table 4**.



LEGEND:

- | | | |
|---|---|---|
| — Appin & North Appin Precincts Boundary | ■ Regional Open Space | ⊙ Mixed Use Centres (including retail/commercial, schools and open space) |
| — Appin (Part) Precinct Boundary | ■ Easements (Potential for active and passive recreation) | — East-West Connection Road |
| — Appin (Part) Precinct - Release Area 1 Boundary | ↔ Green Links | — Public Transport Corridor |
| --- LGA Boundary | ▨ Riparian Corridor | — North-South Connection Road |
| — Waterways | ▨ Planned State Heritage Listing | — Appin Bypass |
| ■ C2 Conservation Land* | ■ Heritage Items | --- Road Connection - By Others |
| ■ Existing Road within C2 | ■ Residential | — Collector Roads |
| ■ Conservation Land | ■ Excluded Land | |
| ■ District Open Space | | |

* Where located outside Appin (Part) Precinct Boundary this represents Strategic Conservation Planning SEPP - Avoided Land (August 2022).

APPIN (PART) PRECINCT STRUCTURE PLAN

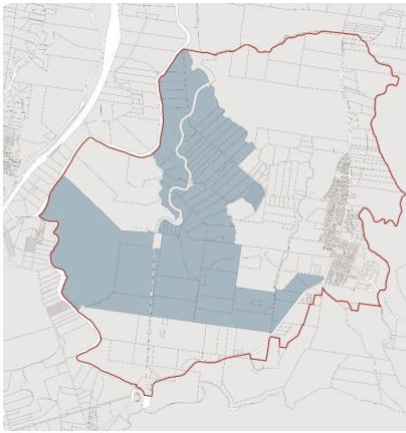
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Figure 3 – Appin (Part) Precinct Structure Plan

Source – Urbis



Table 4 – Appin (Part) Precinct – summary of key attributes

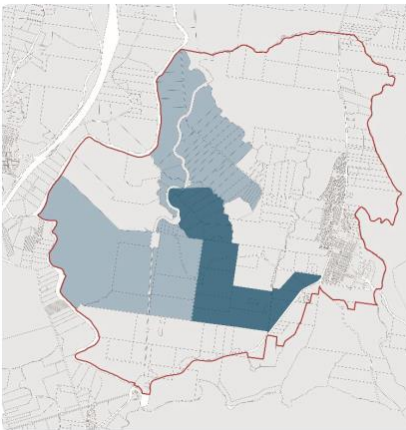
Location		Key Attributes	
Appin (Part) Precinct		Area	<ul style="list-style-type: none"> - Total – 1,378 ha - Walker – 1,248ha - Private Ownership – 94ha
		LGA	Primarily Wollondilly LGA
		Proposed Dwellings	12,000+
		Proposed Population	36,000+

Source – Urbis

2.1.3 Appin (Part) Precinct - Release Area 1

The Appin (Part) Precinct Structure Plan has been staged to ensure the timely delivery of the precinct. Release Area 1 is the first Stage of the Appin (Part) Precinct as shown bounded orange in **Figure 3** and the key attributes of the Indicative Plan area are shown at **Table 5**.

Table 5 - Appin (Part) Precinct - Release Area 1 – summary of key attributes

Location		Key Attributes	
Appin (Part) Precinct - Release Area 1		Area	<ul style="list-style-type: none"> - Total – 395 ha - Walker – 341.35ha - Private Ownership – 44.47ha
		LGA	Wholly Wollondilly LGA
		Proposed Dwellings	3,500+
		Proposed Population	12,000+

Source – Urbis

2.2 Development staging

An indicative draft staging plan is shown in **Figure 4**, noting that the proposed staging of development (and the corresponding delivery of infrastructure) may be updated.



The Appin Precinct development is proposed to be delivered across eight stages which will facilitate the sequential and logical development of the site having regard for key road connections and upgrades, the delivery of site servicing infrastructure including potable water and wastewater, electricity and telecommunications, the delivery of key local and neighbourhood centres and associated amenities and services.

2.3 Anticipated development and population

A total of **approximately 21,865 dwellings** are expected to be ultimately developed on across the Appin site, including 16,710 low density dwellings and 5,155 medium density dwellings.

The Social Infrastructure and Open Space Report¹ recommends the following benchmarked occupancy rates for these dwelling typologies:

- Low density dwelling – 3.1 persons
- Medium density dwelling – 2.6 persons

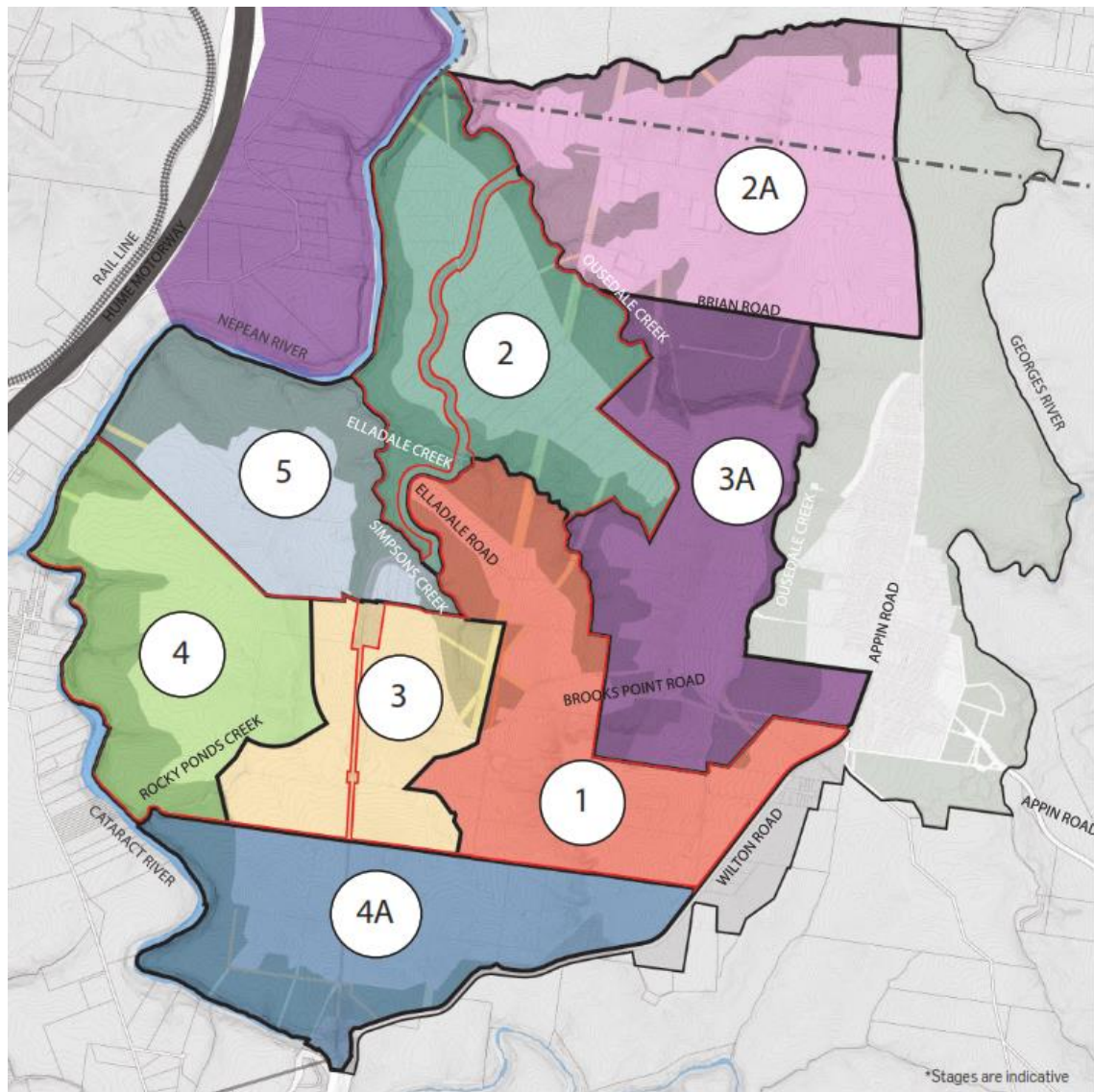
Applying these occupancy rates results in a total anticipated population of **approximately 65,204 residents**. A detailed breakdown of the dwelling and population assumptions is provided in **Table 6** and the dwelling numbers for each stage is show in mapped in **Figure 5**.

Table 6 – Anticipated dwellings and population

Stage	Delivery Years	Low density dwellings	Medium density dwellings	Total dwellings	Projected population
1	2026-2029	2,140	1,265	3,405	9,923
2	2030-2033	3,026	442	3,468	10,530
2A	2033-2037	4,166	188	4,354	13,403
3	2037-2040	1,287	2,064	3,351	9,356
3A	2041-2044	1,318	982	2,300	6,639
4	2045-2050	2,584	214	2,798	8,567
4A	2050-2051	630	-	630	1,953
5	2051-2056	1,559	-	1,559	4,833
TOTAL		16,710	5,155	21,865	65,204

Source – IDC and Urbis

¹ Refer Table 1



LEGEND:

- | | |
|--|------------------------|
| — Appin and North Appin Precincts Boundary | Release Area 3A |
| Existing Rivers | Release Area 4 |
| Release Area 1 | Release Area 4A |
| Release Area 2 | Release Area 5 |
| Release Area 2A | Future Employment Zone |
| Release Area 3 | |

APPIN AND NORTH APPIN PRECINCTS - STAGING PLAN

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Figure 4 - Appin and North Appin Precinct staging plan

Source – Urbis

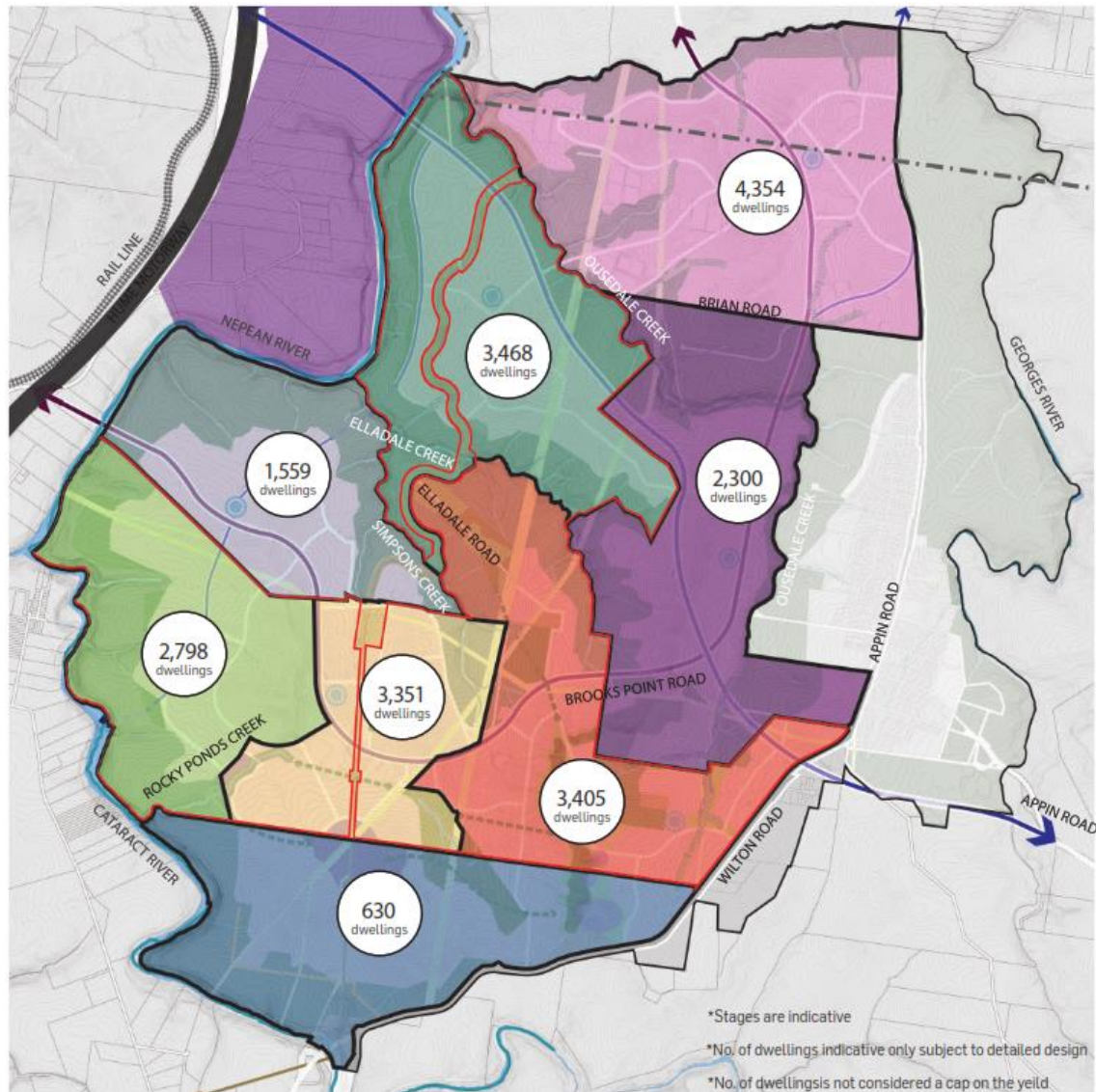


Figure 5 – Appin and North Appin estimated dwellings per stage

Source – Urbis



3 Infrastructure planning context

3.1 Greenfield development infrastructure

The site is currently used for rural activities and is described in planning and infrastructure terms as a “greenfield” development site.

The site will therefore require a full range of infrastructure so that it can become an urban area.

Table 7 shows the generic infrastructure needs for a greenfield development such as Appin. It shows whether such infrastructure is located within or outside the development site (as this has implications for how new infrastructure or upgrade(s) may be done – i.e. through developer works or monetary contribution). It also shows whether the infrastructure is driven by the development of the land itself, or by the incoming population.

Table 7 - Infrastructure required to support greenfield development

Infrastructure type	Location(s)	Infrastructure to support the subdivision and development of land	Infrastructure to support the future population
Water and wastewater supply			
Sewage treatment plants, sewage pumping stations, sewer rising mains, sewer reticulation, reservoirs, water gravity mains	On and off site	✓	✓
Energy and telecommunications			
National Broadband Network, zone substations, TransGrid bulk supply point, electricity sub stations, feeder transmission lines, electricity reticulation, gas supply pipelines and reticulation, street lighting	On and off site	✓	
Stormwater management			
Flood levees, Pipes and pits, detention basins, bioretention facilities, gross pollutant traps, drainage channels, riparian corridors, swales, culverts, bridges, on-lot detention basins, rainwater tanks	Generally on site	✓	
Transport			
Arterial roads, sub arterial roads, arterial intersection, arterial road widening, grade separated arterial interchange, bridges	On perimeter or off site	✓	✓
Local roads, collector roads, road widening, intersection treatments, traffic management devices,	Generally on site or on-site perimeter	✓	



Infrastructure type	Location(s)	Infrastructure to support the subdivision and development of land	Infrastructure to support the future population
Car parking, footpaths, street trees, shared pedestrian and cycleways	Generally on site	✓	✓
Dedicated Public Transport corridors, Bus shelters, bus facilities, passenger rail facilities, road crossings	On and off site	✓	✓
Social infrastructure			
Schools, hospitals, emergency services, justice services, medical centres	On and off site	✓	✓
Multi-purpose community floor space, libraries and cultural facilities, community services	On and off site	✓	✓
Local parks, playgrounds, picnic shelters, amenities blocks, playing fields, outdoor courts, skate parks, passive recreation, walking trails	On and off site	✓	✓

Source – GLN Planning

3.2 Infrastructure delivery process and mechanisms

Developer's role

Infrastructure requirements for a greenfield development area are identified by State infrastructure agencies, public utility authorities, and the local Council during the rezoning stage.

Provision of the infrastructure required to directly serve a greenfield development area will usually be the developer's responsibility.

Infrastructure is either directly provided by the developer (as Works in Kind) or the developer will arrange its provision by the relevant infrastructure authority. Arranging provision may simply be the payment of a charge, contribution or levy to the authority (this is the case when the required infrastructure is outside of the developer's land, or the infrastructure serves multiple developments).

Consent conditions

Developers are required to meet the requirements through undertaking works, dedicating land and paying cash contributions to the relevant authority usually at some point in the subdivision application and certificate process.

Requirements are set out in development consents for successive stages of a greenfield development. These consents include conditions that:

- require infrastructure works to be undertaken,
- include or refer to detailed requirements (such as works specifications), and



- identify the particular infrastructure authority responsible for certifying that the requirements of the consent condition have been met.

The developer may be required to enter into an agreement with an authority to ensure that any infrastructure physically delivered by a developer is fit for the purpose it was intended. Agreements also set out the conditions to be met before ownership of a completed infrastructure asset is transferred from the developer to the relevant authority.

Developer commitments to providing infrastructure may also be documented in a 'planning agreement' negotiated with State or local government, which may be entered into at or following rezoning of the land. Where such an agreement has been negotiated and an offer accepted by the planning authority, a consent condition will require the agreement to be entered into.

Table 8 shows the different mechanisms that can be used by planning authorities and consent authorities to require developments to make adequate provision for infrastructure to serve their developments.

Table 8 - Infrastructure delivery mechanisms

Mechanism	Brief description of mechanism
Direct developer provision	Conditions imposed on a development consent under s4.17(1)(a) or (f) of the EP&A Act requiring the developer to: <ul style="list-style-type: none"> (a) provide evidence (e.g. a compliance certificate) that satisfactory arrangements have been made with the relevant infrastructure agencies concerning the provision of utility infrastructure (whether provided directly on site or by a fee or charge), and (b) provide, replace or upgrade infrastructure needed as a result of a single development – e.g. roads and footpaths within a residential subdivision, new or upgraded intersections with the public road network to enable safe access to / from the site.
S7.11 contributions	A contribution of money or land imposed as a condition on a development consent or complying development certificate. The contribution cannot be more than an amount that reflects the relationship (or nexus) between the development and the infrastructure the subject of the contribution. The contribution is applied to any public service or public amenity that is the local council's responsibility (excluding water and wastewater).
S7.12 fixed rate levies	Fixed rate levy imposed as a condition on a development consent or complying development certificate and applied by a council toward providing public services or public amenities excluding water and wastewater. It is an alternative to a s7.11 contribution. Maximum levy rate is set by regulation and is generally 1% of development cost.
S7.24 Special Infrastructure Contributions (SICs)	Contribution of money or land imposed as a condition on a development consent or complying development certificate to be applied toward the provision of State or regional public infrastructure determined for a Special Contributions Area that is declared by the Minister for Planning.
Planning agreements (State and Local)	An agreement voluntarily negotiated between a developer and the one or more planning authorities in which the developer commits to providing contributions of land, works or money for public purposes.

Source – GLN Planning

Figure 6 shows a flow-chart of the process for planning, funding and delivering greenfield development infrastructure.

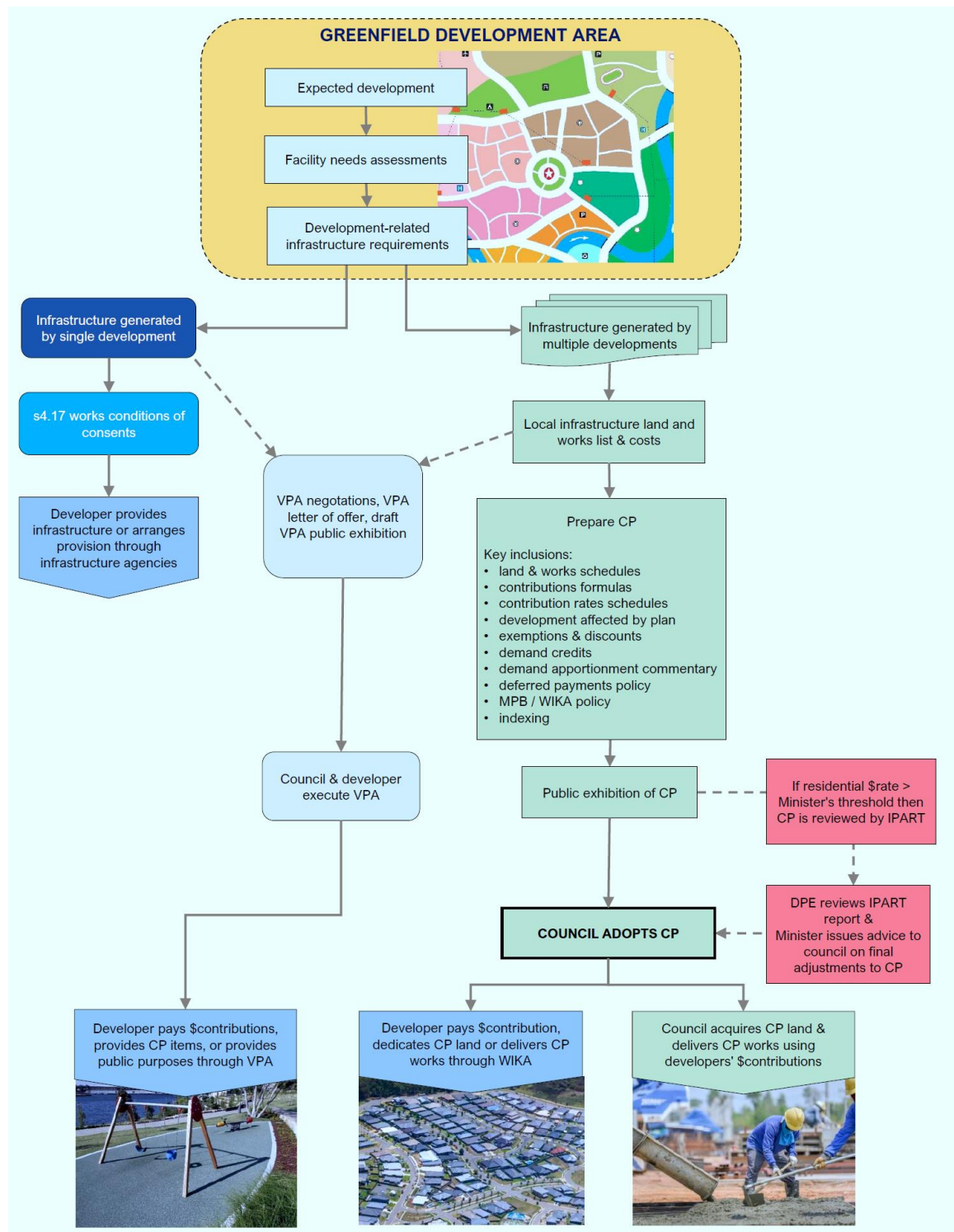


Figure 6 - Greenfield infrastructure identification and delivery process

Source – GLN Planning



3.3 Infrastructure contributions reforms

The NSW Government publicly exhibited a package of infrastructure contributions reforms in late 2021 which were intended to deliver a contributions system which is more certain, efficient, simple, transparent and consistent. The reforms were the practical implementation of the twenty-nine recommendations identified in the NSW Productivity Commissioner's review into the infrastructure contributions system and proposed legislative changes via the *Environmental Planning and Assessment Amendment (Infrastructure Contributions) Bill 2021* and accompanying regulation (which has yet to be passed) and other policy changes.

In September 2022 the NSW Government announced that the components of the reforms which were reliant upon the passing of the Bill and Regulation would **not** be progressed at this stage, inclusive of the following reforms which could have applied to Appin and North Appin:

- **Regional infrastructure contributions (RIC)** – the proposed RIC was intended to replace the existing Special Infrastructure Contributions (SIC) system and will apply to a much broader area than the current SICs, encompassing the Greater Sydney, Lower Hunter, Central Coast and Illawarra-Shoalhaven regions. The RIC proposed to introduce a contribution of \$12,000 per dwelling or subdivided lot in greenfield release areas, with potential additional contributions towards the Strategic Biodiversity Component (SBC) and Transport Project Component (TPC) which had not been determined at the exhibition stage of the reforms..
- **Land value contributions (LVC)** – the LVC was an alternative approach for the preparation of new contributions plans and for rezoned areas (particularly greenfield developments) which include land for acquisition for public purposes and links the timing of payment of contributions to either the first sale of land or the first development application after rezoning, whichever occurs first.

The following reforms do not require legislative change to be implemented:

- **Alignment of planning proposals and the preparation of contributions plans** – these reforms require the planning proposal authority to prepare and exhibit a draft contributions plan alongside the planning proposal. This IDP and supporting information is being prepared to provide Council with the necessary detail and context to inform a new contributions plan and is therefore consistent with this objective. Separate to the reforms, the NSW Government has also updated its LEP making guidelines to require up-front consideration of infrastructure demand and mechanisms for delivery early in the planning proposal process.
- **Essential works list (EWL) and benchmark costs** – The Independent Pricing and Regulatory Tribunal (IPART) exhibited a revised suite of benchmark costs for infrastructure delivery, "efficient design" principles for infrastructure delivery, and changes to the EWL relating to community infrastructure. The introduction of the changes to the EWL have been postponed until at least July 2025, when a review of the proposals will take place.

The implications of this are that any section 7.11 local infrastructure contributions plan prepared for the site would be subject to existing review and approval arrangements – i.e. - likely need to be reviewed by IPART.



3.4 Existing planned infrastructure in contributions plans

3.4.1 Local infrastructure in s7.11 plans

The Wollondilly Contributions Plan (**WCP**), which commenced on 1 July 2020, applies to the entire Wollondilly LGA and identifies infrastructure to support the forecast growth across the LGA to 2036 and beyond.

The WCP includes detailed technical provisions which apply to the LGA as follows:

- **Area A – The Shire** applies to the entire LGA except for the land to which Area B applies as shown in **Figure 7**. The Area A provisions identify infrastructure to support forecast growth across the LGA of approximately 4,729 dwellings to 2036. Of these growth, Area A assumes that an additional 260 dwellings will be constructed in Appin to 2036, most of which are expected to be constructed in the Appin township itself. This confirms that the existing Area A provisions of the WCP do not cater for the proposed growth within the Appin precinct.
- **Area B – Wilton Growth Area** applies specifically to the Wilton Growth Area and contains a comprehensive schedule of infrastructure to meet the needs of the existing and future population of Wilton.

It is understood that Council intends to prepare new “Area C” technical provisions for Appin which will amend the WCP and include all of the local infrastructure for the precinct.

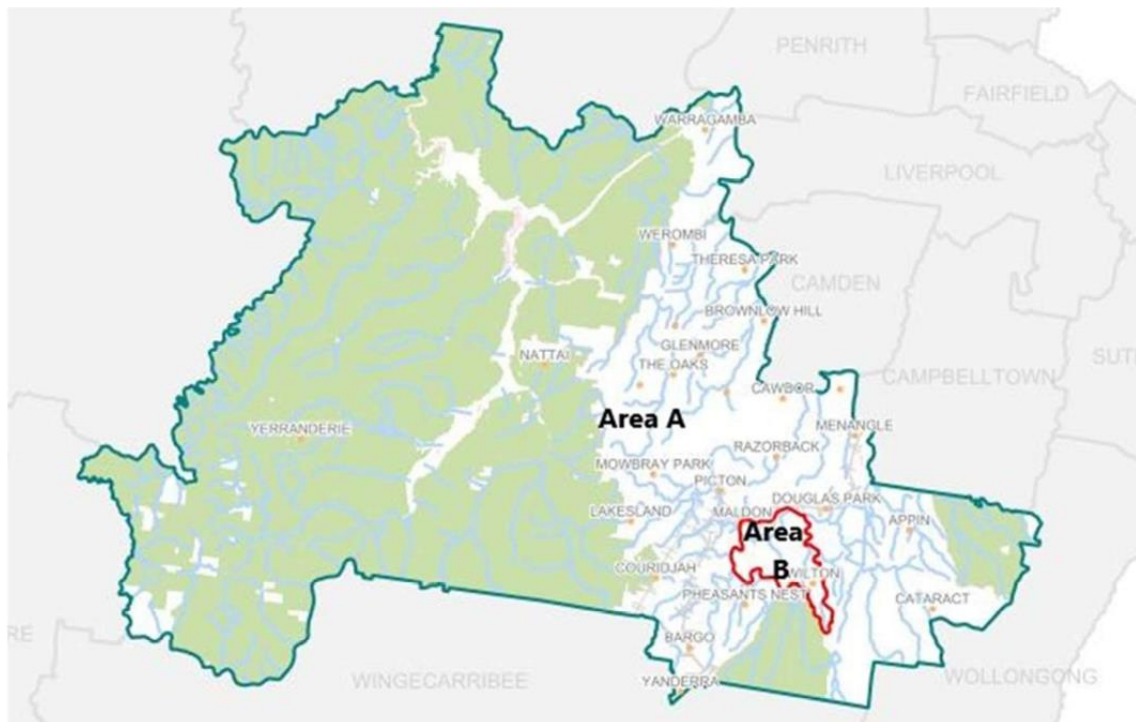


Figure 7 – Application of Wollondilly Contributions Plan (Areas A and B)

Source – Wollondilly Contributions Plan



3.4.2 State and regional contributions plans

In late 2018 the NSW Government exhibited the draft Greater Macarthur Special Infrastructure Contribution (SIC) which identified a suite of infrastructure to support the development of the Greater Macarthur Growth Area, including Gilead, Appin and Menangle Park. At the date of this report, the SIC has not yet been formally adopted, however it forms the basis for State and regional infrastructure planning in Greater Macarthur. The SIC area is divided into the North, Central and South contribution areas as shown in **Figure 8**.

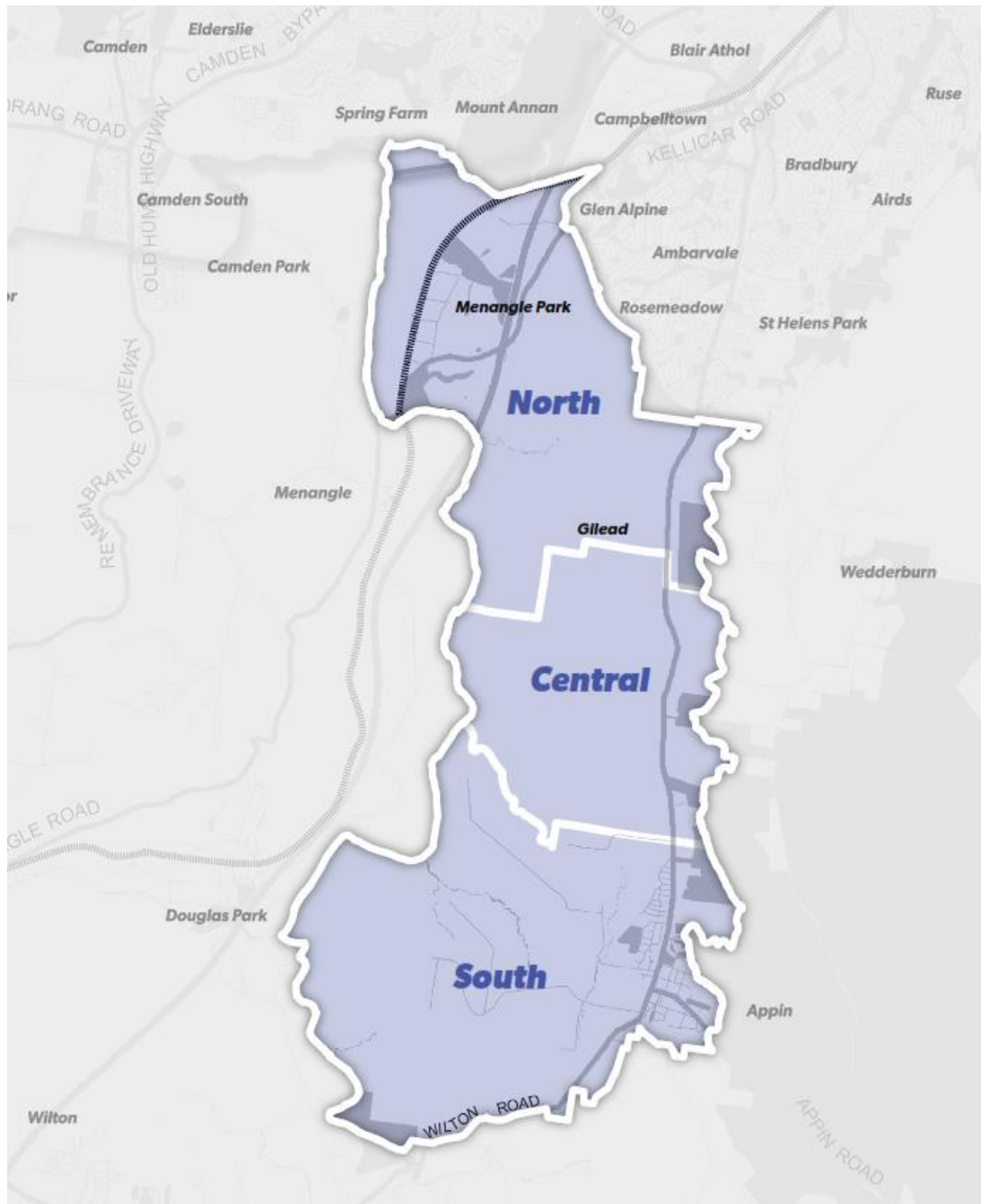


Figure 8 - Draft Greater Macarthur SIC boundary

Source – Department of Planning



The infrastructure schedule and location map included in the draft Greater Macarthur SIC are shown in **Table 9** and **Figure 9** respectively. It is noted that the map is diagrammatic in nature and the location of the infrastructure is subject to refinement through the planning process.

Table 9 - Draft Greater Macarthur SIC infrastructure items

Identifier	Description
R1	Spring Farm Parkway – new 4 lane arterial road between Appin Road and Liz Kernohan Drive
R2	Appin Road North – upgrade to 4 lanes between Kellerman drive and Malatty Creek
R3	Spring Farm Parkway – interchange ramps to Hume Highway
R4	Mt Gilead North – new 4 lane sub-arterial road
R5	Mt Gilead South – new 4 lane sub-arterial road
R6	Appin Road North – widened to 6 lanes – Malatty Creek to Narellan Road
R7	Appin Road South – Widened to 4 lanes – Malatty Creek to Brooks Point Road
R8	Menangle Road – widened to 4 lanes – Picton Road to Englorie Drive
R9	Macquariedale Road – sub-arterial upgrade Appin Road to Menangle Road
R10	Link Road B – New sub-arterial 4 lane road
R11	Macquariedale Road – interchange ramps to Hume Highway
R12	Link Road A – New sub-arterial 4 lane road
R13	Link Road A – interchange ramps to Hume Highway
R14	Spring Farm Parkway East – widened to 6 lanes
H1-2	2 x integrated health hubs – land acquisition
P1	Transit corridor north – land acquisition
P2	Transit corridor south – land acquisition
ES1	Fire and Rescue station Mt Gilead – land acquisition
ES2	Police Station Menangle Park – land acquisition
ES3	Fire and Rescue station Appin – land acquisition
-	9 x primary schools - land acquisition
-	2 x secondary schools – land acquisition
-	Biodiversity Certification

Source – Department of Planning

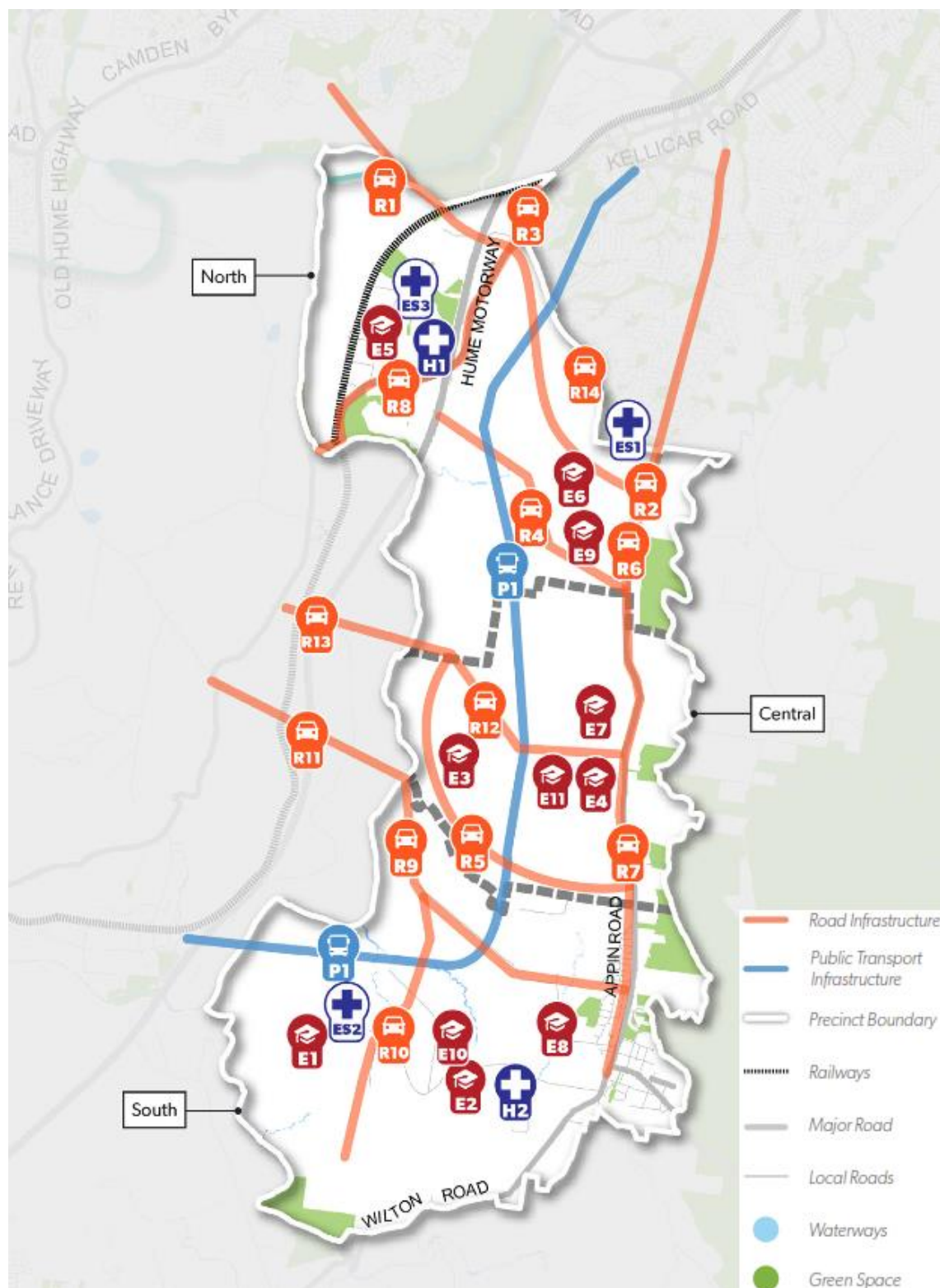


Figure 9 - Draft Greater Macarthur SIC infrastructure map

Source – Department of Planning



4 Infrastructure requirements

4.1 Utility / site servicing infrastructure

The Infrastructure Phasing Plan prepared for the planning proposal² assessed the capacity of existing utility services within the vicinity of the site, current and planned utility projects, planned Special Infrastructure Contribution (SIC) infrastructure, and potential servicing strategies for the proposed development within the precinct.

The Infrastructure Phasing Plan includes a detailed stage-by-stage breakdown of utility and site servicing requirements and should be consulted in conjunction with this IDP if further detail is required. A summary of the key outcomes is provided below and are shown in **Figure 10**.

4.1.1 Potable water

Sydney Water has indicated that the precinct will be serviced from the Macarthur Water Filtration Plant (MWFP). The WMFP has sufficient existing capacity to support Stage of the development and upgrade works which are currently underway and due to be completed by 2026 will provide sufficient capacity to support all development within the Appin (Part) Precinct.

4.1.2 Sewer

The existing Appin township is serviced by the Glenfield Water Recycling Plant (WRP) which is located approximately 23km northeast of Appin. The existing infrastructure needs to be upgraded to support the growth planned in the Appin (Part) Precinct.

Sydney Water have indicated that in the short to medium term, sewer flows from new dwellings will be treated at the Glenfield WRP via new trunk infrastructure which transfers flows from Appin (Part) Precinct to existing sewer infrastructure located at Rosemeadow, including a new sewer pump station (SPS) and rising main. This arrangement is likely to operate for up to 10 years until a new Treatment Plant is commissioned down near the lower parts of the Nepean River and additional SPS are provided.

4.1.3 Electricity and gas

A technical review by Endeavour Energy has identified that there is capacity for between 1,200-1,400 dwellings to be serviced using the existing Appin Zone Substation (ZS), after which a new zone substation will need to be established to support further growth. Endeavour Energy have also advised that TransGrid will require a site for a future Bulk Supply Point (BSP) to service the development.

Gas reticulation servicing will be subject to further analysis and negotiation with the supplier at the detailed planning stage. It is noted however that gas is not an essential utility service and is not proposed to be reticulated within the development.

² Refer Table 1



4.1.4 Telecommunications

It is anticipated that the NBN servicing to the site can be achieved from existing infrastructure fronting Appin Road with minimal cable backhaul required. Existing NBN infrastructure is located in close proximity to the site and there are no forecast servicing issues.

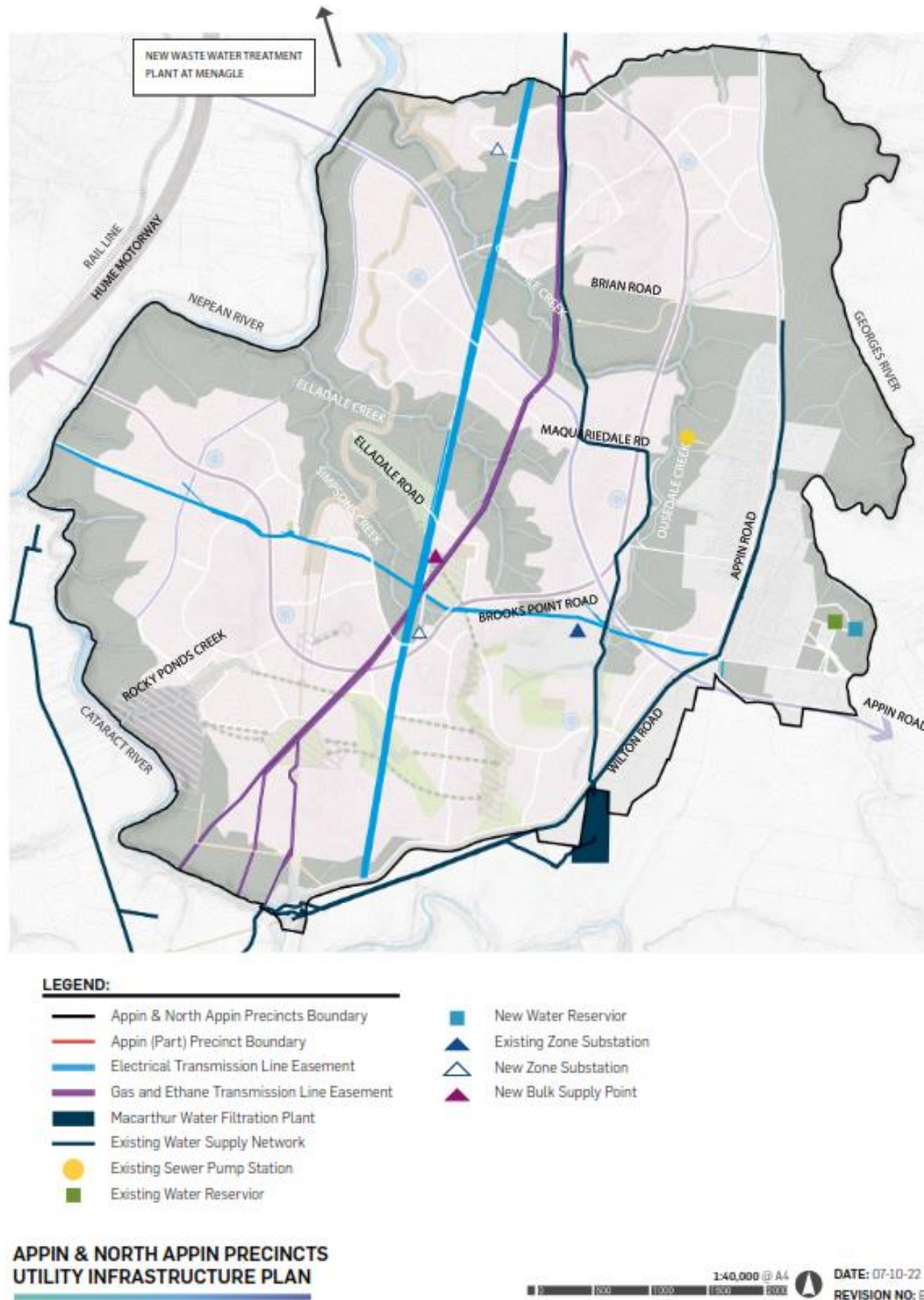


Figure 10 - Appin and North Appin Precincts utility infrastructure plan

Source – Urbis



4.2 State and regional infrastructure

The following section outlines the state and regional infrastructure required to support the Appin development. Further details on the infrastructure required for Appin (Part) Precinct Release Area 1 of the development are included in the infrastructure schedules contained in **Section 5** this report.

4.2.1 Transport and access

The Strategic Transport Assessment³ found that by 2026 the regional road network is sufficient to cater the forecast traffic demands, aided by the opening of the Spring Farm Parkway extension that will help to relieve traffic congestion on Narellan Road through Campbelltown and the Hume Motorway, along with the northern part of Appin Road.

The traffic modelling to 2036 indicated that additional sections of Appin Road to the north of the Appin township would require upgrading to four lanes. In addition, it will be necessary to connect Stages 2 and 2A of the Appin (Part) Precinct development to the Hume Motorway via the first section of the East-West Connector Road to mitigate adverse traffic impacts on Appin Road to Campbelltown and the Hume Motorway. The modelling assumes that the planned developments to the north of the site along Appin Road, such as South Gilead, are expected to have upgraded the section of Appin Road between their site and the proposed widening to the Gilead development.

By 2056 it is expected that the wider upgrades to the strategic road network will support the Appin (Part) Precinct development along with regional travel needs, with the majority of Appin Road having sufficient capacity.

The key State and regional transport upgrades are shown in **Table 10** and **Figure 11**.

Table 10 - State and regional transport and access

Transport and access item	Mechanism	Timing
Spring Farm Parkway extension – new four lane road	TfNSW and others via State planning agreement	By 2026 (By Others)
Widening of Appin Road to four lanes between Gilead and Spring Farm Parkway Extension	TfNSW and/or Other	By 2026 (By Others)
Widening of Appin Road to four lanes between South Gilead and Gilead	TfNSW and/or Other	By 2029 (By Others)
Widening of Appin Road to four lanes between North Appin and South Gilead	TfNSW and/or Other	Prior to the registration of the 3,001st lot within the Appin and Appin North Precincts development
Transit Corridor – new two-lane road (plus future transport lanes) between Neighbourhoods 1 and 2A/Appin Road	TfNSW and/or Other	Prior to the registration of the 3,001st lot within the Appin and Appin North Precincts development

³ Refer Table 1



Transport and access item	Mechanism	Timing
Alternative to Item 4 (delivery of Transit Corridor) – widening of Appin Road through Appin township and Wilton Road	TfNSW and/or Other	Prior to the registration of the 3,001st lot within the Appin and Appin North Precincts development
Road No. 1 – East/West Connection Road – new four-lane road between Neighbourhood 2 and Hume Motorway	TfNSW and/or Other	Prior to the registration of the 8,001st lot within the Appin and Appin North Precincts development
Road No. 1 – East/West Connection Road – new four-lane road between Neighbourhood 2 and Appin Road	TfNSW and/or Other	Prior to the registration of the 14,001st lot within the Appin and Appin North Precincts development
Road No. 2 – Transit Corridor – new two-lane road plus public transport lanes north of North Appin	TfNSW and/or Other	Prior to the registration of the 14,601st lot within the Appin and Appin North Precincts development
Road No. 2 – Transit Corridor – new two-lane road plus public transport lanes to Moreton Park Road (Douglas Park)	TfNSW and/or Other	Post Development (by others)

Source – WSP

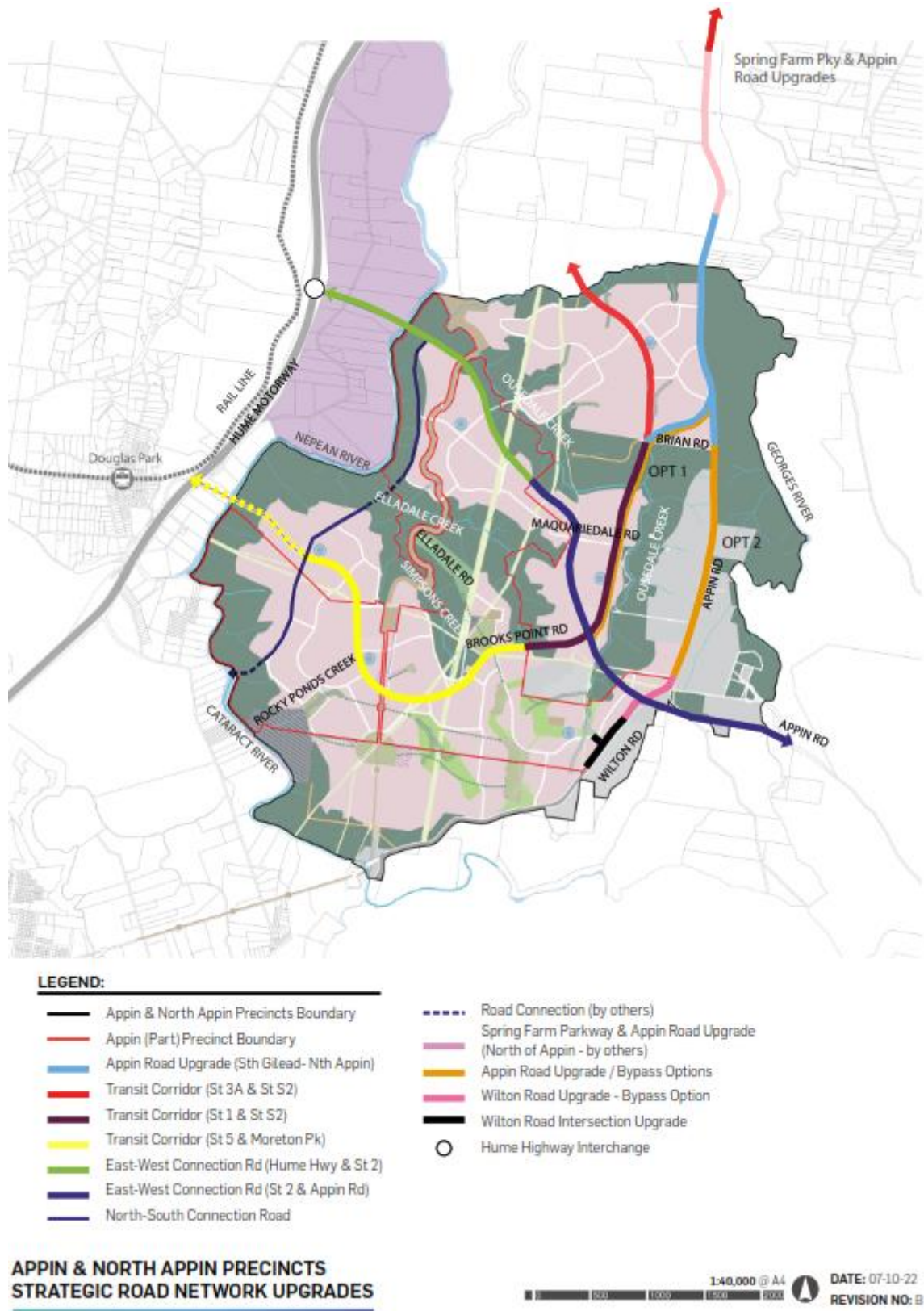


Figure 11 - Appin and North Appin Precincts strategic road network upgrades

Source – Urbis



4.2.2 Education

The Social Infrastructure and Open Space Assessment⁴ identifies the following education requirements to support the development, including new school facilities within the site and the augmentation of the existing Appin Public School as shown in **Figure 12** and **Table 11**:

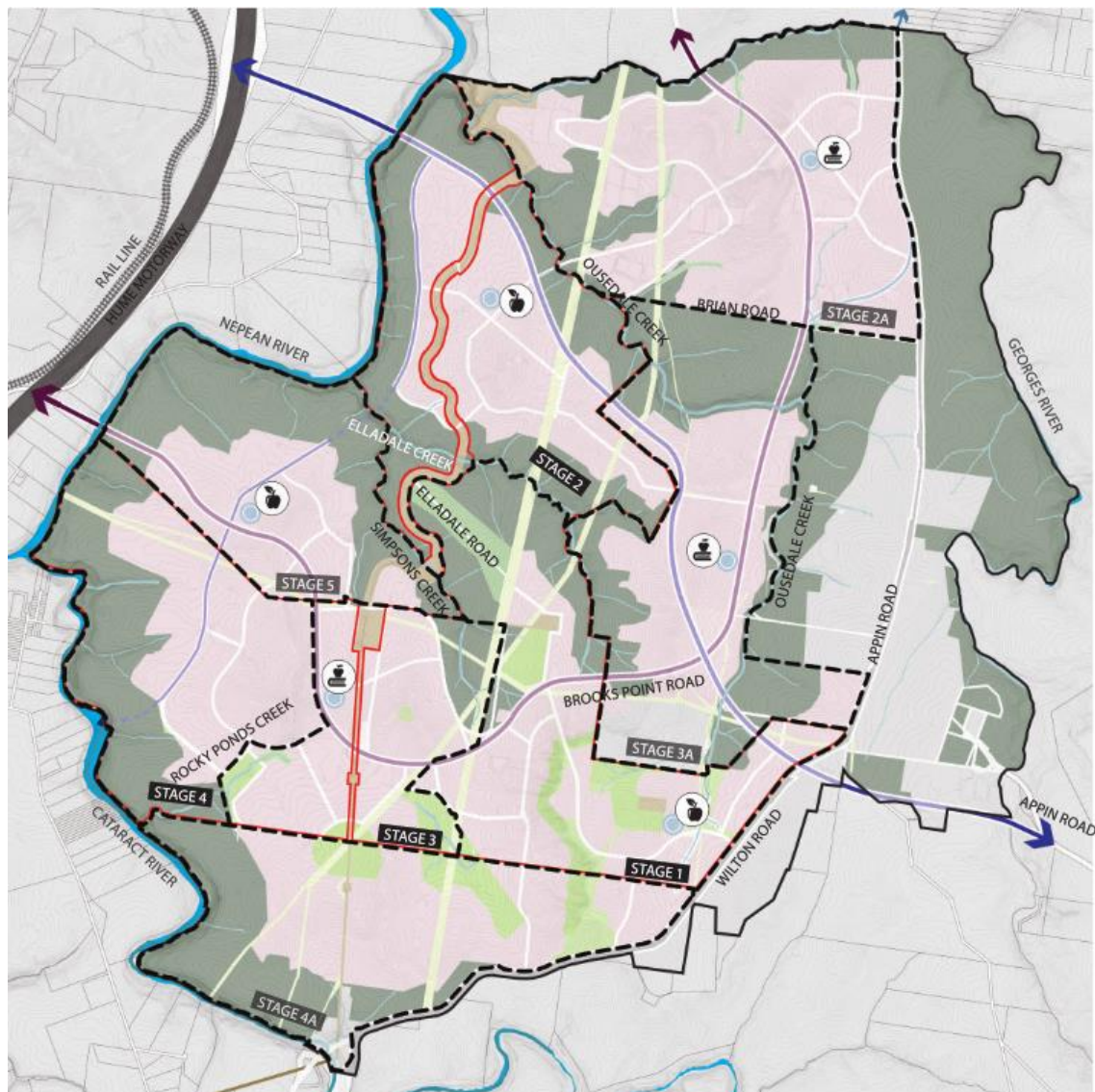
Table 11 - Education infrastructure

Education Item	Mechanism	Timing
Provision of six Primary schools (1.5ha site area) and three Secondary schools (2.5ha site area) in locations shown in Figure 11, along with the potential augmentation of the existing Appin Public School	Land dedication via State planning agreement or funded through State contributions (if government school) or via transaction with non-government school provider. School construction by NSW Government or non-government school provider.	Subject to consultation with NSW Government and/or non-government school providers

Source – Urbis

The proposed new school sites are aligned with SINSW site selection requirements and may be co-located with open space with the expectation that the school providers will explore a shared use arrangement with Council. There may also be further opportunity for the Council to explore shared use arrangements with the school provider for out-of-school-hours use of indoor school facilities for community purposes to augment the proposed on and off-site community facilities discussed in **Section 4.3.5** of this report.

⁴ Refer Table 1



LEGEND:

Appin & North Appin Precincts Boundary	Regional Open Space	East-West Connection Road
Appin (Part) Precinct Boundary	Easements (Potential for active and passive recreation)	Public Transport Corridor
Staging Boundary	Heritage Items	North-South Connection Road
LGA Boundary	Residential	Appin Bypass
Waterways	Excluded Land	Road Connection - By Others
C2 Conservation Land*	Mixed Use Centres (including retail/commercial, schools and open space)	Collector Roads
Existing Road within C2 Conservation Land	Primary School	
District Open Space	Co-located Primary & Highschool	

APPIN & NORTH APPIN PRECINCTS INDICATIVE PLAN

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Figure 12 – Appin and North Appin education facilities

Source – Urbis



4.3 Local infrastructure

The following section outlines the local infrastructure required to support the Appin (Part) Precinct development. Further details on the infrastructure required for Appin (Part) Precinct Release Area 1 of the development are included in the infrastructure schedules contained in **Section 5** this report.

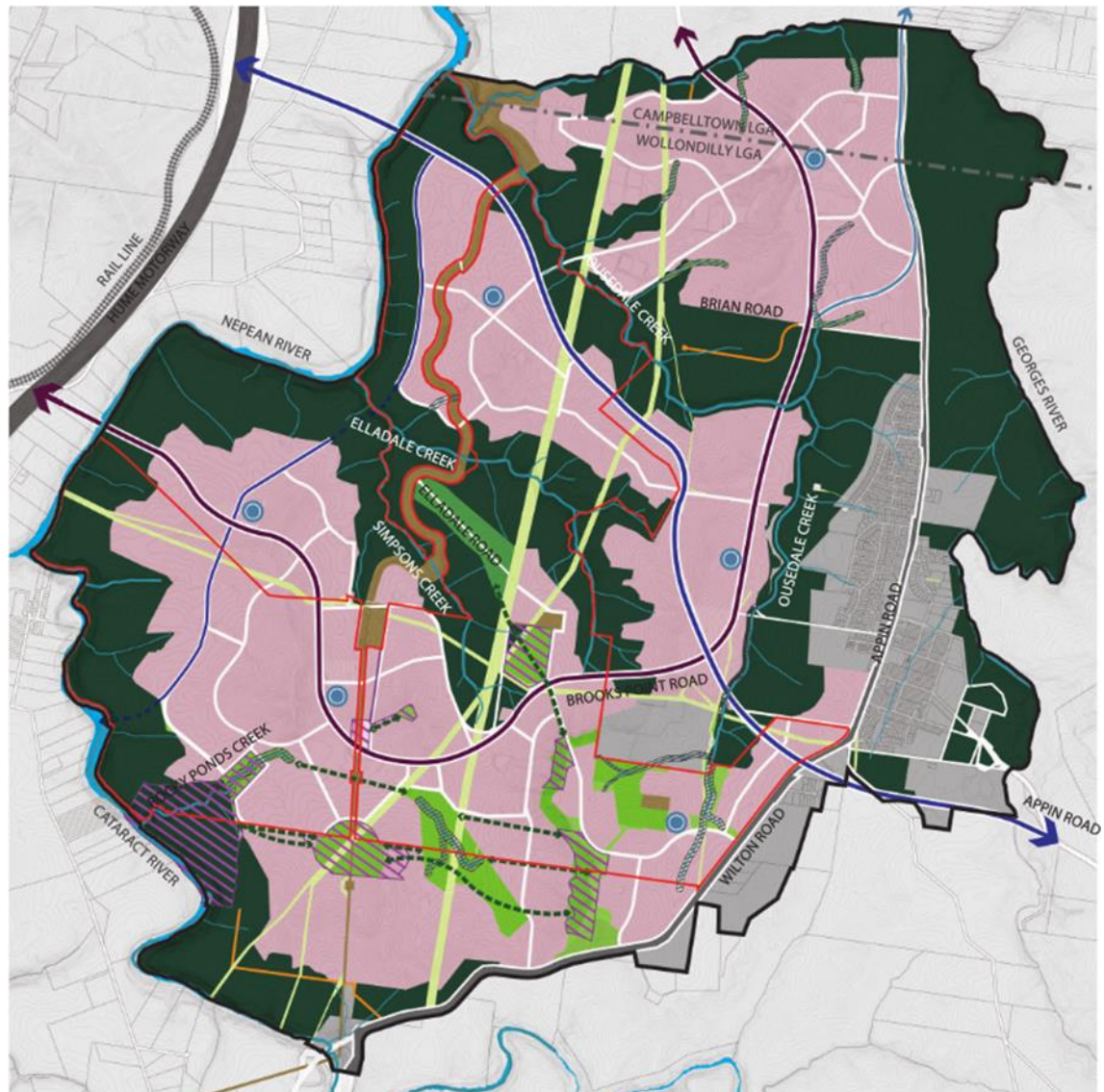
4.3.1 Transport and access

Section 4.21 of this report identifies the key regional transport network upgrades required to support the proposed development, both within and external to the site. In addition to that infrastructure, a high-level internal road network including collector roads is shown at **Figure 13** and **Table 12**. A corresponding road network hierarchy will be adopted within the site which ensures the efficient movement of vehicles within the precinct and includes local roads and collector road intersection treatments. The details of the local road network will be further revised during the assessment of the planning proposal and reflected on a future detailed indicative layout plan for the site and to inform the Council's preparation of a local contributions plan.

Table 12 - Local transport and access

Transport and access item	Mechanism	Timing
Local roads	Delivered by developers via conditions of development consent	In conjunction with the delivery of the relevant stage of the development
Collector roads and intersections	S7.11 contributions plan (with potential for developer delivery via future planning agreement)	In conjunction with the delivery of the relevant stage of the development

Source: WSP



LEGEND:

- | | | |
|---|---|---------------------------------|
| — Appin & North Appin Precincts Boundary | ↔ Green Links | — East-West Connection Road |
| — Appin (Part) Precinct Boundary | ▨ Riparian Corridor | — Public Transport Corridor |
| --- LGA Boundary | ▨ Planned State Heritage Listing Sites | — North-South Connection Road |
| — Waterways | ▨ Heritage Items | — Appin Bypass |
| ■ C2 Conservation Land* | ▨ Residential | --- Road Connection - By Others |
| ■ District Open Space | ■ Excluded Land | ▨ Collector Roads |
| ■ Regional Open Space | ● Mixed Use Centres (including retail/commercial, schools and open space) | |
| ▨ Easements (Potential for active and passive recreation) | | |

* Where located outside Appin (Part) Precinct Boundary this represents Strategic Conservation Planning SEPP - Avoided Land (August 2022).

APPIN & NORTH APPIN PRECINCTS INDICATIVE PLAN

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DATE: 05-10-22
REVISION NO: B

Figure 13 - Collector Roads within Appin and North Appin Precincts (shown white)

Source – Urbis



4.3.2 Pedestrian and cycle paths, trails, and fire access trails

The Landscape Masterplan report identifies the network of cycle paths and fire access trails required to support the development.

Table 12 – Paths, trails and fire access trails

Transport and access item	Mechanism	Timing
Paths – within open space	S7.11 contributions plan (with developer delivery proposed via future planning agreement)	In conjunction with the delivery of the relevant stage or substage of the development
Trails – within open space	Delivered by developer via future planning agreement	TBC
Fire access perimeter trails/roads	Delivered by developer via conditions of consent	In conjunction with the delivery of the relevant stage or substage of the development

Source: Landscape Masterplan report

4.3.3 Water cycle management strategy

The Water Cycle Management Strategy Report⁵ prepared for the proposal focuses on Appin (Part) Precinct Release Area 1 and features a package of water quality and quantity infrastructure including basins and raingardens as outlined in **Table 13** and shown in **Figure 14** below.

The ownership and maintenance of the water cycle management system is further discussed in **Section 4.3.6** of this report.

Table 13 - Water cycle management infrastructure

Water cycle management item	Mechanism	Timing
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 1 including 6 basins and 19 raingardens	S7.11 contributions plan (with developer delivery proposed via future planning agreement)	In conjunction with the delivery of the relevant stage or substage of the development

Source: J. Wyndham Prince

⁵ Refer Table 1

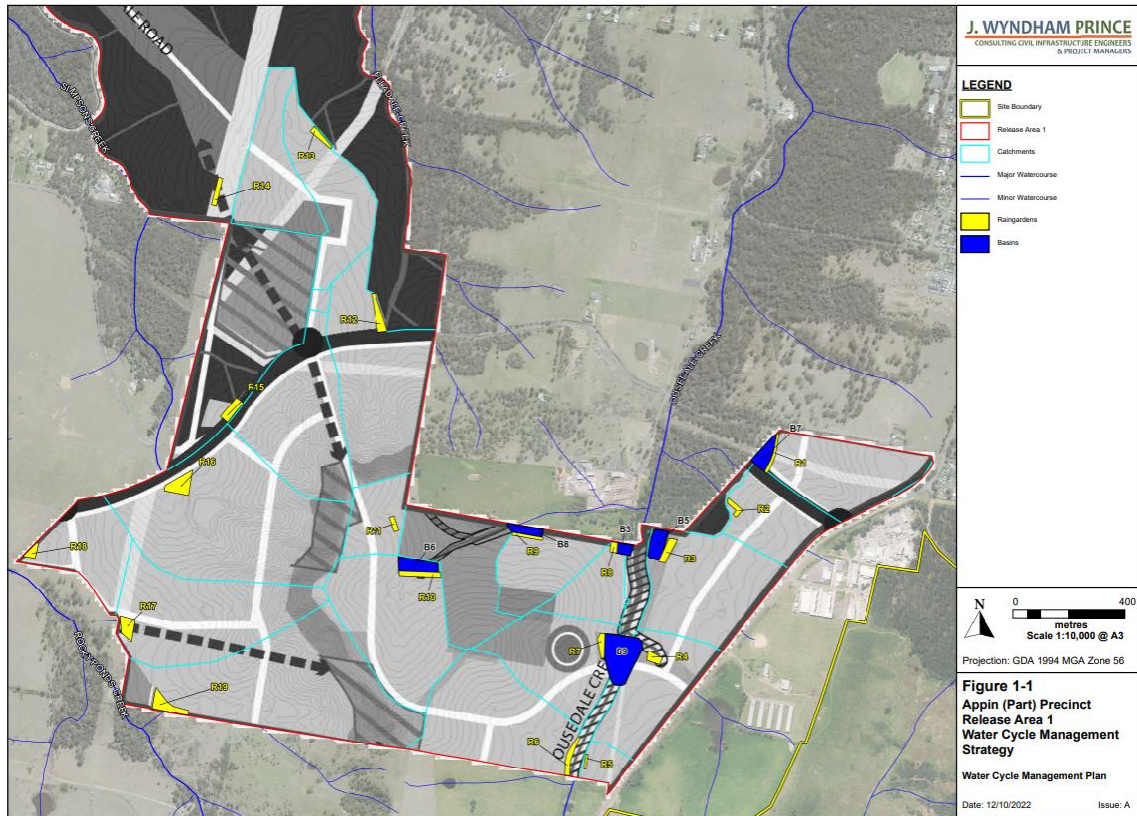


Figure 14 – Appin (Part) Precinct Release Area 1 water cycle management plan

Source: J. Wyndham Prince



4.3.4 Open space and recreation

The Social Infrastructure and Open Space Assessment⁶ establishes the demand and provision of open space throughout the entire Appin and Appin North Precincts along with focusing on Appin (Part) Precinct Release Area 1 as outlined in **Table 14** below:

Table 14 - Open space area and rate of provision

Benchmark	Quantity of open space required	Quantity of open space provided
10% of NDA as local and district open space (does not include regional space)	169.3ha	202.6ha
2.83ha per 1,000 people (includes regional space)	184.5ha	223.6ha 3.4ha per 1,000 people

Source: Urbis

The Assessment notes the following:

- The 2.83ha of open space per 1,000 people benchmark has been widely used in open space planning in NSW and is currently provided as a benchmark in Wollondilly Shire Council's Contributions Plan. This benchmark stems from patterns of recreation from the UK over 100 years ago and there is no evidence based for the use of this rate as a default standard in 21st century Australia, despite its frequent use.
- Current NSW state guidelines are advocating for a performance-based approach to open space which moves away from the quantification of space altogether. While there is some support for this model, some outer metropolitan Councils suggest a combination of performance based and quantitative standards for open space is needed. Several states in Australia have already adopted a quantitative, proportion-based approach.
- The NSW Productivity Commission review found that challenges in funding infrastructure to support development in NSW are heightened by the use and applications of old benchmarks to quantify open space provision. The Commission recommended that performance-based benchmarks for open space planning be developed, with this recommendation being accepted by the NSW Government.
- Council's Open Space Recreation and Community Facilities Strategy takes a combined approach and recognises that an analysis of open space provision cannot rely solely on quantitative metrics. Rather, provision should reflect a multi-criteria approach which also considers the local context, accessibility, quality and usability of open space provided.
- All council and state guidelines use a hierarchy of provision for open space planning. Alongside quantitative measures for each level in the hierarchy, guidance around open

⁶ Refer Table 1



space function, size and accessibility is provided to enable a well balanced network of open space and recreation opportunities.

Taking into account the different calculation methodologies for rates of provision as noted above, it is considered that the proposal includes an appropriate amount of local and district open space to meet the needs of the future population of both the overall Appin and Appin North Precincts and the Appin (Part) Precinct and the proposed regional open space will provide a broader community benefit that extends well beyond the site.

The proponent welcomes the opportunity to discuss the future of the regional open space with Council and the NSW Government, including opportunities to include the land within the local or State contributions framework and secure the long-term custodianship and maintenance of the land as discussed in **Section 4.3.6** of this report.

The planned open space facilities throughout the Appin and Appin North precincts are outlined in **Table 15**.

Table 15 - Open space and recreation

Facility type	Benchmark application	Planned provision and timing (if known)	Mechanism
Aquatic centres	1 for every 30,000 – 60,000 people (1 centre)	Demand for a public facility will be met through the development of a planned indoor aquatic centre at Wilton. It is recommended a private learn to swim facility be provided to within the Appin Precinct to supplement this provision and accommodate some needs of the incoming population.	Public facility through existing S7.11 contributions plan; private facility through private market processes
Indoor recreation facilities	1 for every 50,000 – 100,000 people (0.7 centres)	The incoming population will not generate the need for a standalone facility in the Appin Precinct. Demand will likely to be met through planned facilities at Menangle Park and Wilton.	S7.11 contributions plan (with developer delivery proposed via future planning agreement)
Playspaces	1 playground for every 500 children aged 0-4 years 50 sqm minimum within a park 1 playground for every 500 children aged 5-11 years 100 sqm minimum within a park (up to 25 playspaces total)	Rather than 25 local playspaces, it is strongly recommended there be a range of play spaces distributed across the Precinct. There is potential for: <ul style="list-style-type: none"> • A large regional space with a wide range of play opportunities, located within the regional park and including all abilities play • Nature based play spaces, incorporated within urban greening areas and linear parks • District play spaces located within larger district parks, preferably co-located with outdoor courts or half courts to provide for a range of age groups and preferences 	S7.11 contributions plan (with developer delivery proposed via future planning agreement)



Facility type	Benchmark application	Planned provision and timing (if known)	Mechanism
		<ul style="list-style-type: none"> Local play spaces within walking distance of homes and key destinations. 	
District sportsgrounds	Two double playing fields and amenities per 10,000 people (six double playing fields)	To be located adjacent to schools and within the regional park.	S7.11 contributions plan (with developer delivery proposed via future planning agreement)
Multipurpose outdoor courts	1 for every 4,200 people 0.05ha per court plus runoff space and amenities (15 courts)	To be distributed among district and some well-located local spaces. Some of the latter may be half court facilities for informal local games. Consideration should also be given to potential joint use arrangements with schools.	S7.11 contributions plan (with developer delivery proposed via future planning agreement)
Riparian corridors	N/A	Embellished riparian corridors which form a passive open space, ecology and water cycle management function.	Planning agreement
Regional open space	N/A	19 ha of regional open space	Planning agreement

Sources: Urbis

4.3.5 Community facilities

The Social Infrastructure and Open Space Assessment identifies the community infrastructure required for the Appin and Appin North development using the Wilton Priority Growth Area Community Needs Assessment 2018 as a benchmark and recommends the provision of community facilities as shown in **Table 16**.

Table 16 - Community facility demand and provision

Facility type	Benchmark application	Planned provision and timing (if known)	Mechanism
District multipurpose community facility and library	<p>Multipurpose community centres - 1 for every 20,000 30,000 people</p> <p>Branch libraries - 42 sqm for every 1,000 people</p>	<p>One multipurpose district community centre with an integrated library of approximately 4,420sqm, comprising of approximately:</p> <ul style="list-style-type: none"> 2,000sqm multipurpose community space 2,000sqm library space 420sqm shared meeting spaces, staff spaces and amenities. Located within the local mixed-use centre, with direct access to the public transport corridor. 	Land acquisition can be included in future s7.11 contributions plan; alternative funding or delivery mechanism for buildings (e.g. planning agreement with developer, grants, joint use arrangements)



Facility type	Benchmark application	Planned provision and timing (if known)	Mechanism
Local multipurpose community facility	Local community centres - 1 for every 10,000 20,000 people	Three local level multipurpose facilities of approximately 935 sqm. Locate facilities within the neighbourhood mixed use centres. Facilities should be located close to public transport and co-located with other services such as the school sites, recreational facilities or retail services.	Land acquisition can be included in future s7.11 contributions plan; alternative funding or delivery mechanism for buildings (e.g. planning agreement with developer, grants, joint use arrangements)

Source: Urbis



4.3.6 Post-development ownership and maintenance

The proposed post-development local infrastructure ownership and maintenance responsibility regimes across the Appin Precinct, and Appin (Part) Precinct more specifically, include Council and the NSW Government. **Table 17** provides a possible post-development management arrangement, which will be the subject of further discussion between the proponent, the NSW Government and Council:

Table 17 - Local infrastructure delivery and post-development management arrangement

Local Infrastructure type	Delivery mechanism	Ownership post delivery	Maintenance costs responsibility	Estimated defects period timing	Estimated maintenance period timing*
Internal roads – collector	s7.11	Council	Council	1 year	1 year
Internal roads – other	Conditions of consent	Council	Council	1 year	1 year
Laneways	Conditions of consent	Council	Council	1 year	1 year
External roads	s7.11	Council or TfNSW	Council or TfNSW	1 year	1 year
Stormwater drainage	S7.11	Council	Council	1 year	1 year
Riparian corridors	Planning agreement	Council	Developer (maintenance contribution to Council at asset handover)	5 years	5 years
Regional open space	s7.11/SIC/planning agreement (for negotiation)	Council or NSW government (for negotiation)	Developer (maintenance contribution to Council or NSW government at asset handover – for negotiation)	5 years	3 years



Local Infrastructure type	Delivery mechanism	Ownership post delivery	Maintenance costs responsibility	Estimated defects period timing	Estimated maintenance period timing*
Open space including playing fields, outdoor courts, and playspaces	s7.11	Council	Council	1 year	1 year
Community facilities	s7.11 for land acquisition; alternative funding or delivery mechanism for buildings (e.g. planning agreement with developer, grants, joint use arrangements)	Council	Council	1 year	1 year

Source – GLN

Notes:

- a Infrastructure listed in the table does not include State or regional infrastructure
- b S7.11 plan would contain essential works and base level embellishment only
- * Defects period and maintenance occurs concurrently

The proponent welcomes further discussions with Council and the NSW Government regarding the delivery, ownership and maintenance of the stormwater drainage, riparian corridors and regional open space which form part of the Appin (Part) Precinct development.



4.3.7 Other social infrastructure

The Social Infrastructure and Open Space Assessment⁷ identifies the following requirements for other social infrastructure to support the proposal, including health services and childcare facilities to support the entire Appin and Appin North Precincts as shown in **Table 18**.

Table 18 - Other social infrastructure – Appin and North Appin Precincts

Facility type	Mechanism	Timing
Three to four primary health clinics (1 clinic for every 15,000 to 18,000 people)	Via private and public providers	TBC in conjunction with the development of commercial floorspace or co-location opportunities with community facilities, and subject to consultation with private and public providers
Up to 13 private general practices (1 practice for every 4,000 to 5,000 people)	Via private providers	In line with market demand
Approximately 25 long day care centres with an average of 80 children (1,972 places)	Via private providers	In line with market demand
Approximately 23 out of hours school care places with an average of 80 children (1,811 places)	Via private providers	In line with market demand

Source – Urbis

⁷ Refer Table 1



5 Infrastructure schedules

5.1 Appin (Part) Precinct Release Area 1

5.1.1 Local infrastructure for Appin (Part) Precinct Release Area 1

Table 19 – Local infrastructure schedule for Appin (Part) Precinct Release Area 1

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	The proponent	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Local parks and play spaces	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Double playing fields	1	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	The proponent	Embellishment works delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 1 including 6 basins and 19 raingardens	25	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.1.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 1

Table 20 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 1

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Transit corridor	1	TfNSW/ proponent/ landowner	The arterial road corridor will be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Arterial road corridor	1	TfNSW/ proponent/ landowner	The arterial road corridor will be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Education					
Land to accommodate future K-6 school site	3ha	NSW Government	The school site land will be dedicated to the NSW Government via a proposed State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Electricity - TransGrid Bulk Supply Point Land Dedication only	26,000m ²	The proponent	TBC	TransGrid	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Electricity - Endeavour Energy zone substation	8,280m ²	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Electricity - 11kV feeders	3	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Water - Trunk mains	5,200m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Sewer – pump station	3	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Sewer - Trunk gravity mains	7,300m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Sewer - rising mains (includes mains along Appin Road)	13,600m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Electrical - internal reticulation	TBC	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Telecommunication - lead in	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development
Telecommunication - reticulation	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 1 of the development



5.2 Appin (Part) Precinct Release Area 2

5.2.1 Local infrastructure for Appin (Part) Precinct Release Area 2

Table 21 – Local infrastructure schedule for Appin (Part) Precinct Release Area 2

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	The proponent	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Double playing fields	1	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	1	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	1	The proponent	Embellishment works delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 2	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.2.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 2

Table 22 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 2

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Arterial road corridor	1	TfNSW/ proponent/ landowner	The arterial road corridor will be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Education					
Land to accommodate future K-6 school site	1.5ha	NSW Government	The school site land will be dedicated to the NSW Government via a proposed State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					
Electricity - 11kV feeders	3	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Water - Trunk mains	5,550m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Sewer - Trunk gravity mains	6,400m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Sewer – pump station	1	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Sewer - rising mains	4,100m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Electrical - internal reticulation	TBC	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Telecommunication - lead in	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development
Telecommunication - reticulation	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2 of the development



5.3 Appin (Part) Precinct Release Area 2A

5.3.1 Local infrastructure for Appin (Part) Precinct Release Area 2A

Table 23 – Local infrastructure schedule for Appin (Part) Precinct Release Area 2A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	Future developer	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Double playing fields	1	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	Future developer	Subject to negotiation with future developer via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 2A	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.3.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 2A

Table 24 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 2A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Transit corridor	1	TfNSW/ landowner	Expected to be dedicated to TfNSW via a future State planning agreement which will offset the value of the land against State infrastructure contributions	TfNSW	TBC
Education					
Land to accommodate future K-12 school site	4ha	NSW Government	The school site land is expected to be dedicated to the NSW Government via a future State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					
Electricity - 11kV feeders	4	Future developer/ asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Water - Trunk mains	5,800m	Future developer/ asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Sewer - Trunk gravity mains	9,100m	Future developer/ asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Sewer – pump station	2	Future developer/ asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Sewer - rising mains	8,100m	Future developer/ asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Electrical - internal reticulation	TBC	Future developer/ asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Telecommunication - lead in	TBC	Future developer/ asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development
Telecommunication - reticulation	TBC	Future developer/ asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 2A of the development



5.4 Appin (Part) Precinct Release Area 3

5.4.1 Local infrastructure for Appin (Part) Precinct Release Area 3

Table 25 – Local infrastructure schedule for Appin (Part) Precinct Release Area 3

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	The proponent	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Double playing fields	1	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	The proponent	Embellishment works delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 3	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.4.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 3

Table 26 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 3

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Arterial road corridor	1	TfNSW/ proponent landowner /	The transit corridor will be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Education					
Land to accommodate future K-12 school site	4ha	NSW Government	The school site land will be dedicated to the NSW Government via a proposed State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					
Electricity - 11kV feeders	3	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Water - Trunk mains	4,300m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Sewer - Trunk gravity mains	3,100m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Sewer – pump station	3	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Sewer - rising mains	3,300m	The proponent/asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Electrical - internal reticulation	TBC	The proponent/asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Telecommunication - lead in	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development
Telecommunication - reticulation	TBC	The proponent/asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3 of the development



5.5 Appin (Part) Precinct Release Area 3A

5.5.1 Local infrastructure for Appin (Part) Precinct Release Area 3A

Table 27 – Local infrastructure schedule for Appin (Part) Precinct Release Area 3A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	Future developer	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Double playing fields	1	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	Future developer	Subject to negotiation with future developer via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 3A	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.5.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 3A

Table 28 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 3A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Transit corridor	1	TfNSW/ landowner	The transit corridor is expected to be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Arterial road corridor	1	TfNSW/ landowner	The arterial road corridor is expected to be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Education					
Land to accommodate future K-12 school site	4ha	NSW Government	The school site land is expected to be dedicated to the NSW Government via a future State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					
Electricity - 11kV feeders	3	Future developer / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Water - Trunk mains	2,300m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development
Sewer - Trunk gravity mains	2,800m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development
Electrical - internal reticulation	TBC	Future developer / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development
Telecommunication - lead in	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development
Telecommunication - reticulation	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 3A of the development



5.6 Appin (Part) Precinct Release Area 4

5.6.1 Local infrastructure for Appin (Part) Precinct Release Area 4

Table 29 – Local infrastructure schedule for Appin (Part) Precinct Release Area 4

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	The proponent	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Other open space connections and corridors	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	The proponent	Embellishment works delivered by the proponent via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 4	TBC	The proponent	Included in future s7.11 contributions plan and will be delivered by the proponent via a voluntary planning agreement	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.6.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 4

Table 30 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 4

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Site servicing					
Electricity - 11kV feeders	2-3	The proponent / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Water - Trunk mains	3,200m	The proponent / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Sewer - Trunk gravity mains	5,000m	The proponent / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Sewer – pump station	4	The proponent / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Sewer - rising mains	3,300m	The proponent / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Electrical - internal reticulation	TBC	The proponent / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Telecommunication - lead in	TBC	The proponent / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development
Telecommunication - reticulation	TBC	The proponent / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4 of the development



5.7 Appin (Part) Precinct Release Area 4A

5.7.1 Local infrastructure for Appin (Part) Precinct Release Area 4A

Table 31 – Local infrastructure schedule for Appin (Part) Precinct Release Area 4A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	Future developer	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Other open space connections and corridors	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	Future developer	Subject to negotiation with future developer via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 4A	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.7.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 4A

Table 32 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 4A

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Site servicing					
Water - Trunk mains	5,000m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development
Sewer - Trunk gravity mains	5,400m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development
Sewer – pump station	1	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development
Sewer - rising mains	1,000m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development
Electrical - internal reticulation	TBC	Future developer / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Telecommunication - lead in	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development
Telecommunication - reticulation	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 4A of the development



5.8 Appin (Part) Precinct Release Area 5

5.8.1 Local infrastructure for Appin (Part) Precinct Release Area 5

Table 33 – Local infrastructure schedule for Appin (Part) Precinct Release Area 5

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Collector roads within the site	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Signalised intersections and roundabouts on collector roads	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Local road network	TBC	Future developer	Delivered via conditions of development consent	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Open space and recreation					
Local parks and play spaces	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Double playing fields	1	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Other open space connections and corridors	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Riparian corridors	TBC	Future developer	Subject to negotiation with future developer via a voluntary planning agreement.	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development
Water cycle management					
Delivery of an integrated water cycle management system throughout Appin (Part) Precinct Release Area 5	TBC	Council or future developer	Included in future s7.11 contributions plan and may be delivered by future developer via a voluntary planning agreement or works-in-kind agreements	Wollondilly Shire Council	Delivered in conjunction with the relevant stage or substage of the development



5.8.2 State, regional and other infrastructure for Appin (Part) Precinct Release Area 5

Table 34 – State, regional and other infrastructure for Appin (Part) Precinct Release Area 5

Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Transport and Access					
Transit corridor	1	TfNSW / landowner	Expected to be dedicated to TfNSW via a proposed State VPA which will offset the value of the land against State infrastructure contributions.	TfNSW	TBC
Education					
Land to accommodate future K-6 school site	1.5ha	NSW Government	The school site land is expected to be dedicated to the NSW Government via a future State VPA which will offset the value of the land against State infrastructure contributions. The school will be delivered by the NSW Government	NSW Government or non-government provider	To be determined via ongoing consultation with Schools Infrastructure NSW
Site servicing					
Electricity - 11kV feeders	1	Future developer / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Water - Trunk mains	2,300m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development



Description	Qty	Responsibility for delivery	Mechanism for delivery	Future asset owner	Staging / priority
Sewer - Trunk gravity mains	3,500m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Sewer – pump station	2	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Sewer - rising mains (includes mains along Appin Road)	1,500m	Future developer / asset owner	TBC	Sydney Water	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Electrical - internal reticulation	TBC	Future developer / asset owner	TBC	Endeavour Energy	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Telecommunication - lead in	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development
Telecommunication - reticulation	TBC	Future developer / asset owner	TBC	TBC	Enabling infrastructure works to support Appin (Part) Precinct Release Area 5 of the development