

infrastructure & development consulting

South Creek West Cobbitty Sub Precinct 5
Infrastructure Servicing Strategy

December 2025

Table of Contents

1	Introduction	4
2	The Site	5
2.1	Existing Site	5
2.2	Proposal.....	7
2.3	Proposed Development.....	8
3	Water	9
3.1	Existing Network & Planned Infrastructure	9
3.2	Sydney Water Growth Servicing Plan.....	10
3.3	Proposed Servicing Strategy	11
4	Sewer.....	13
4.1	Existing Network & Planned Infrastructure	13
4.2	Sydney Water Growth Servicing Plan.....	16
4.3	Sewer Catchments	16
4.4	Proposed Servicing Strategy	17
5	Electricity	18
5.1	Existing Network & Planned Infrastructure	18
5.2	Proposed Servicing Strategy	20
6	Gas.....	21
7	Telecommunications	22
7.1	Telstra 5G Network.....	22
7.2	NBN.....	23
8	Conclusion	24
	Appendix A – Authority Endorsement/Advice.....	25

This Document has been prepared for the Party that has commissioned it, for the specific Purposes of this Project (or part thereof). It should not be relied upon by any other Party, or for any other Purpose.

Infrastructure & Development Consulting Pty Ltd accept no responsibility for any consequences of this being relied upon by any other Party or for any other Purpose, or for any errors or omissions which are due to errors, omissions or incomplete data being supplied to us for this Project.

This Document must not be disclosed to any other Party without the prior consent of Infrastructure & Development Consulting and from the Party who has commissioned it.

Project Number	24-118	Date	5 December 2025
Project Name	South Creek West – Cobbitty Sub Precinct 5	Status	For Gateway Exhibition
Client	JJ Cobbitty	Revision	J
Author	R. Higginson	Reviewed	C. Avis

1 Introduction

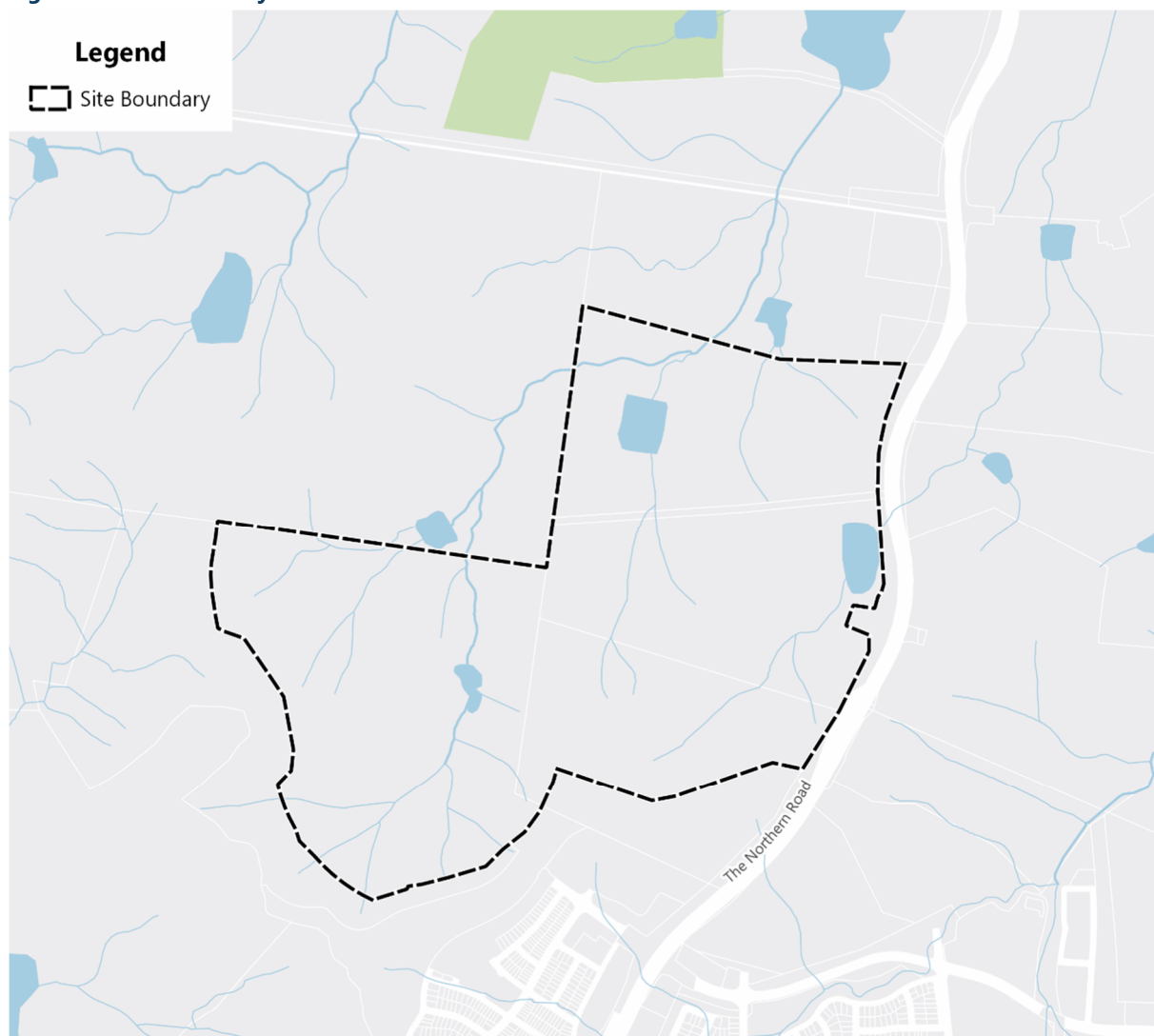
This report summarises the investigations relating to the infrastructure delivery strategies for the development site at Cobbitty Sub Precinct 5 (Precinct 5). The site is located within the South Creek West Land Release Area and is yet to be rezoned for residential development.

The site will be developed into primarily low and medium density residential dwellings, with supporting social infrastructure such as parks, playing fields and a school. Existing site access is from The Northern Road on the eastern boundary.

This report outlines a potential strategy for the provision of utility services for the site. Specifically, this report will outline:

- Existing services within the vicinity of the site
- Current and planned projects
- Implications of the above and potential servicing strategies for the proposed development of the site

Figure 1 - Site Boundary



2 The Site

2.1 Existing Site

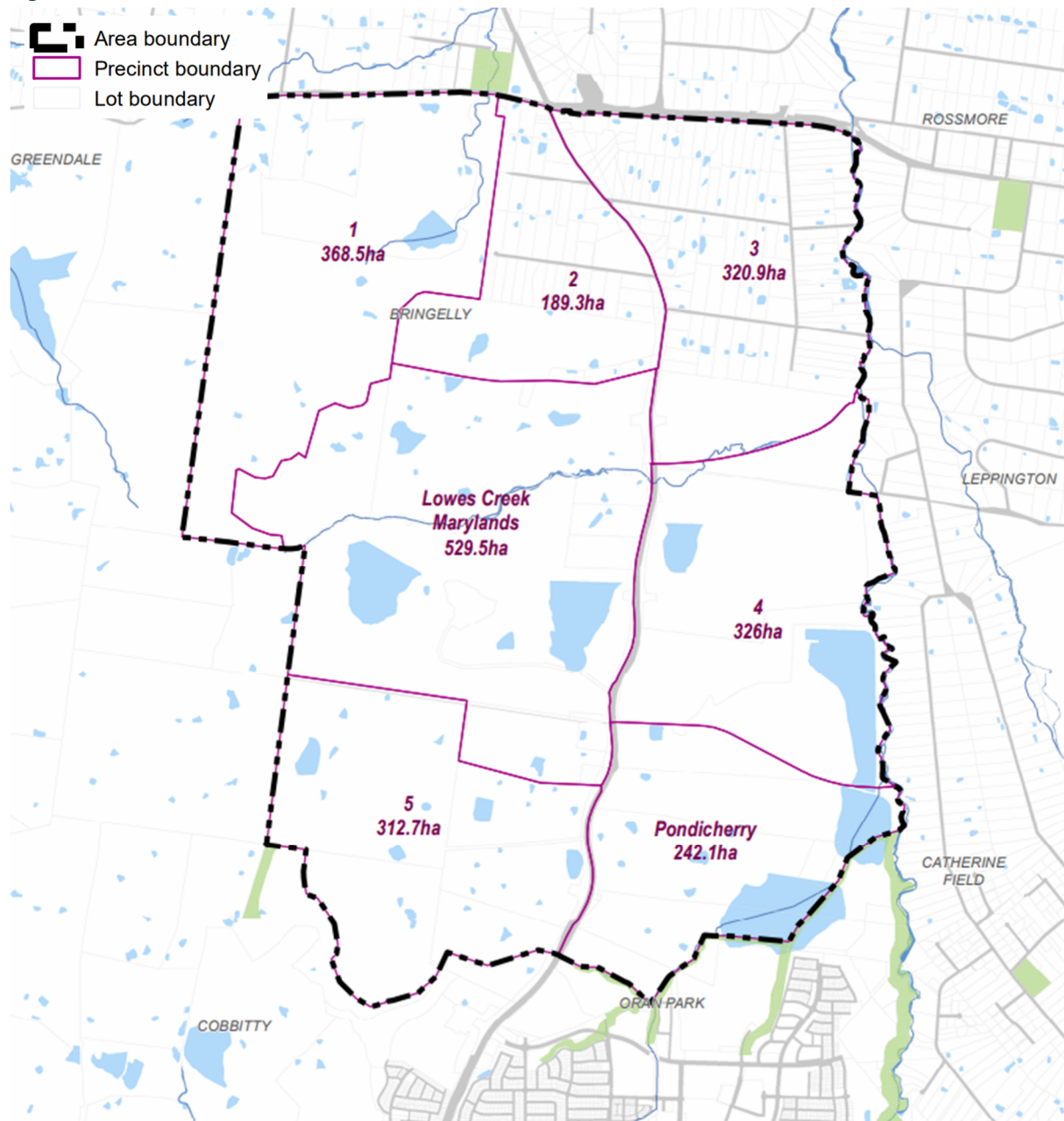
The site is situated within the South Creek West Land Release Area (SCWLRA). The SCWLRA forms part of the South West Growth Area (SWGA). Given the scale of the release area, the Department of Planning & Environment (now the Department of Planning, Housing & Infrastructure) divided it into five distinct precincts numbered 1 – 5. The land to which this Planning Proposal relates to is referred to as Cobbitty Sub-Precinct 5, also known as Precinct 5. It totals approximately 170 hectares and is characterised by the existing rural residential and agricultural land uses and activities.

The Precinct was released by the Minister for Planning on 24 November 2017 for urban development. The release formally commenced the rezoning process for land within the precinct, including the subject site.

Precinct 5 is located within the south-west portion of the SCWLRA within the suburb of Cobbitty in the Camden LGA. The Precinct adjoins the Lowes Creek Maryland Precinct, which was rezoned in 2021, to the north, the Pondicherry Precinct to the east, which is in the process of being rezoned, and the growing town centre and suburbs of Oran Park to the south.

Figure 2 illustrates the site boundaries of Precinct 5 and the SCWLRA.

Figure 2 - South Creek West Land Release Area



Source: DPE (2021)

2.2 Proposal

JJ Cobbitty, as the developer representing and working with the landowners, seeks to initiate the preparation of a planning proposal for the rezoning of Precinct 5, consistent with the Draft Indicative Layout Plan (ILP). This is to facilitate the orderly redevelopment of Precinct 5 into a residential community.

The intended outcome of this Planning Proposal is to amend the current *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* to facilitate the urban development of Precinct 5 as part of the South West Growth Centre and envisaged in the Greater Sydney Commission's Regional Plan and District Plan.

The Draft ILP has been prepared to support the planning proposal and precinct rezoning and has been informed by extensive specialist consultant studies. The site will comprise approximately 2,650 dwellings and a population of 8,049 people within a thriving community supported by:

- Easy access to jobs in the Western Sydney Aerotropolis
- Proximity to the Oran Park Town Centre
- 19ha of useable open space, including over 10ha of active space (double sports fields and double playing fields)
 - Open space typologies also include fitness stations, playgrounds, BBQ facilities and a network of green spaces and other nature-based recreation areas
- Pedestrian and cycling connections including a central green corridor
- Prominent creeks and riparian areas that retain water in the local environment
- A future local school
- Integrated stormwater and services infrastructure that improve local amenity

The proposed new planning controls comprise amendments to *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* and associated environmental planning instruments including the rezoning of the precinct to reflect land uses shown in the Draft ILP.

This Planning Proposal also seeks to introduce a site-specific Schedule to the *Camden Growth Centre Precincts Development Control Plan* to support the Precinct's development in accordance with the Draft ILP and supporting technical investigations.

2.3 Proposed Development

Precinct 5 will be rezoned to provide a mix of development typologies. A breakdown of the proposed development is provided in Table 1.

Table 1 - Proposed Yield

Land Use	Yield
Environmental Living (10 dw/ha)	56
Low Density 1 (20 dw/ha)	586
Low Density 2 (25 dw/ha)	431
Medium Density (32 dw/ha)	1,577
Total	2,650

Figure 3 – Cobbitty Sub Precinct 5 ILP



Source: Design + Planning (2026)

3 Water

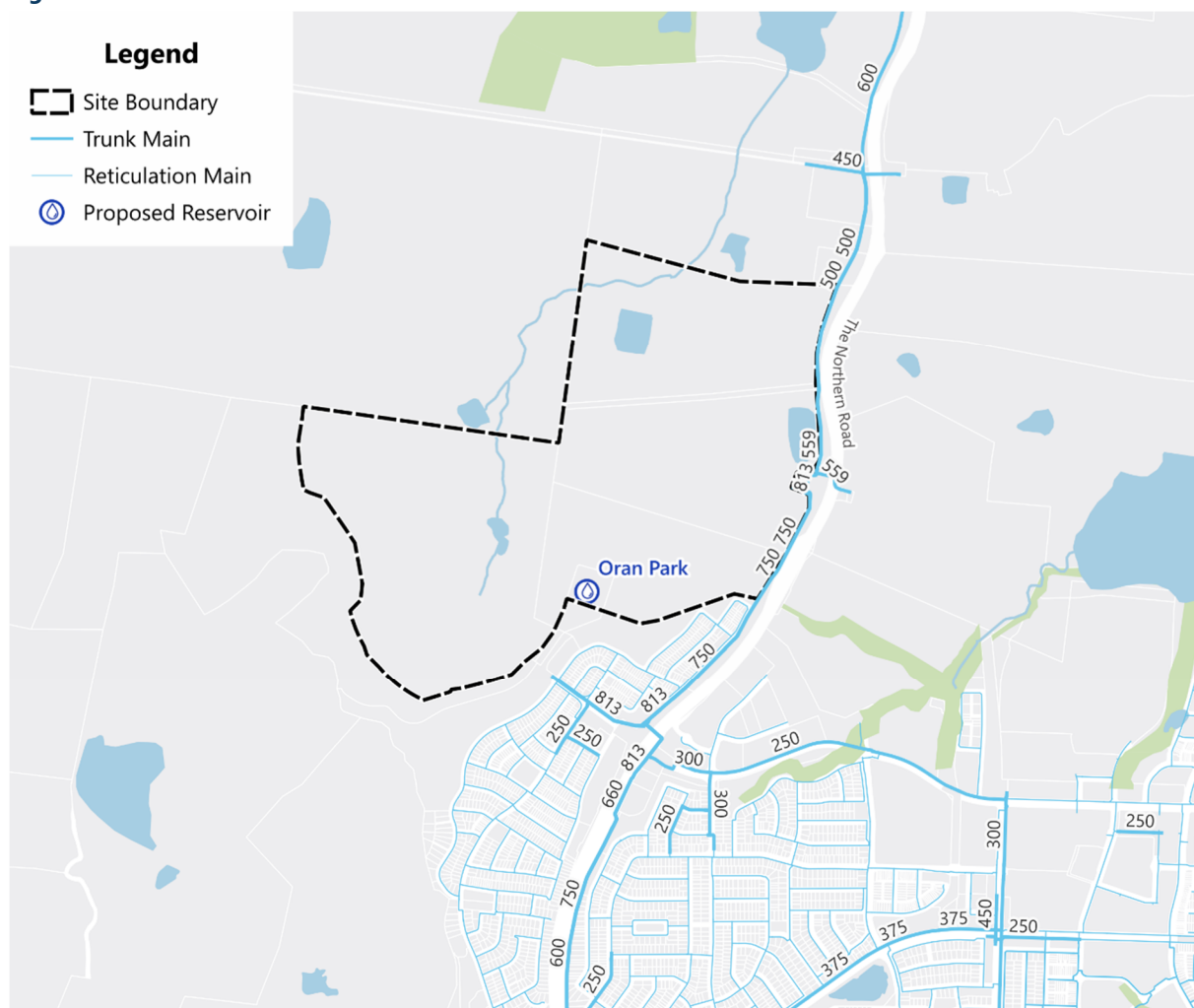
3.1 Existing Network & Planned Infrastructure

The site is not currently serviced by the Sydney Water potable water network. Potable water infrastructure supplies existing rural properties within Rossmore and Leppington, and in newer development areas in Oran Park and Turner Road.

Two 24ML reservoirs have recently been constructed in the southern portion of the site to provide potable water supply to development in the surrounding area. These reservoirs are expected to be operational in the coming months.

The Oran Park Reservoirs will connect to twin trunk mains which traverse the western side of The Northern Road. These trunk mains are 750mm and 600mm in diameter. This infrastructure has been planned for, and will have sufficient capacity to supply all proposed development on the site, as well as development to the north within the Lowes Creek Maryland Precinct.

Figure 4 – Potable Water Network



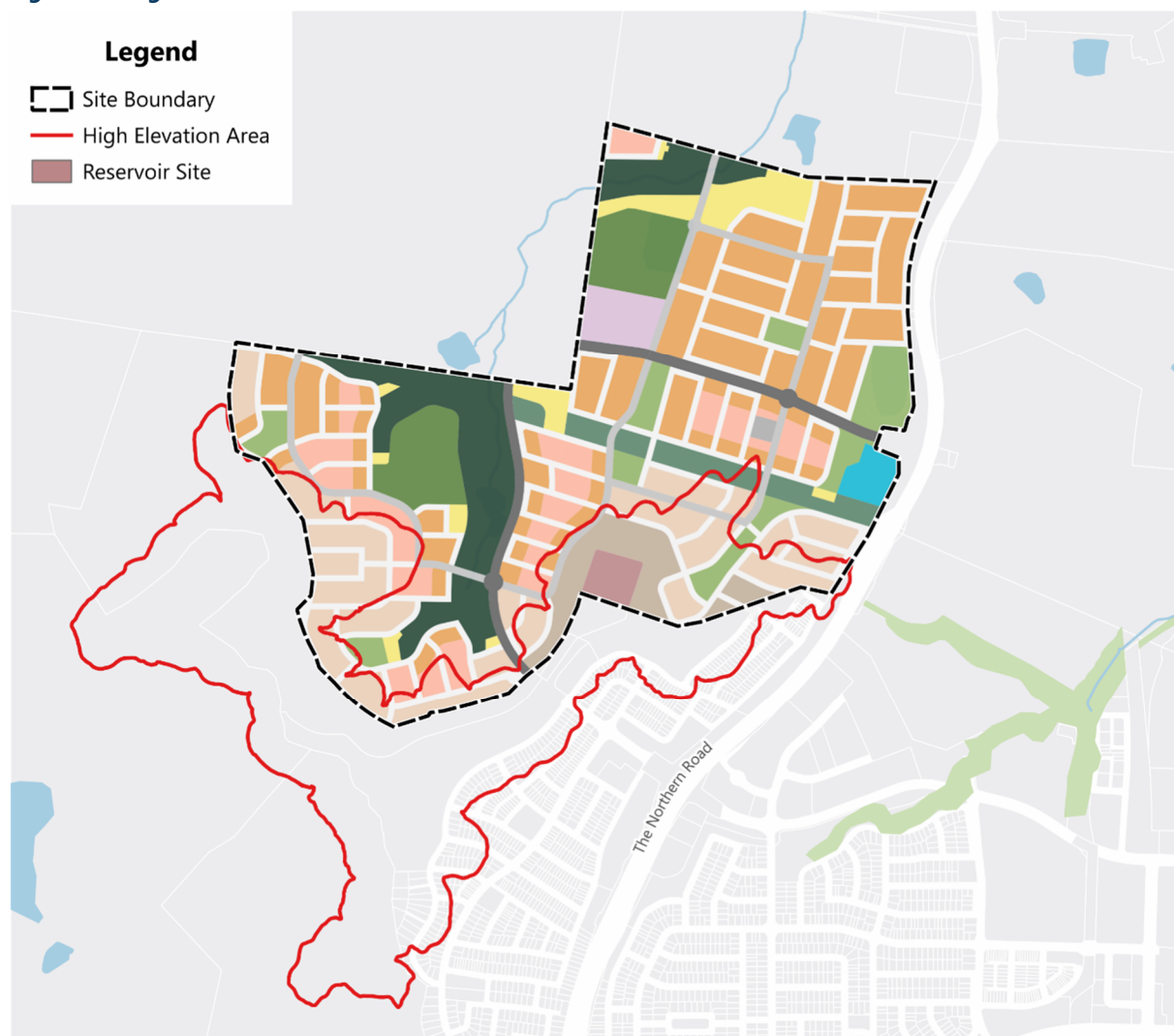
3.2 Sydney Water Growth Servicing Plan

Sydney Water's 2024 Growth Servicing Plan (GSP) outlines the servicing strategy to support planned growth in Greater Sydney up to 2029. The GSP indicates that infrastructure to support South Creek West is in the design and delivery phase, with limited existing trunk capacity available until Sydney Water delivered reservoirs are operational. It is expected that trunk services will be available by FY26.

The GSP also identifies an area of high elevation along the southern portion of the site. The elevation contour (RL 116AHD) was plotted over the site to determine the development areas which may be impacted. This is shown in Figure 5.

As discussed above, the reservoirs are located in the south east part of the site. Based on the existing contours, the reservoirs are likely to be located at a minimum elevation of RL 136AHD, providing at least 20m elevation difference to the high elevation area shown below. It is likely that the delivery of these reservoirs will resolve any potential servicing constraint, however this will be confirmed with Sydney Water.

Figure 5 – High Elevation Areas



3.3 Proposed Servicing Strategy

A high-level assessment was undertaken using the Water Supply Code of Australia (WSA) to determine the trunk infrastructure requirements to support the proposed development. This involved calculating the peak hourly demand to estimate the likely trunk main size required.

The maximum water demand rates were extracted from the WSA. These rates were used to determine the peak hour demand for each land use type. The results of this assessment are provided in Table 2.

Table 2 - Proposed Water Demand Calculations

Land Use	Max Demand Rate (kL/Day)	Unit	Peak Demand (L/s)
Low Density Residential (<30 dw/ha)	1.4	Per Dwelling	39.1
Medium Density Residential (30-60 dw/ha)	60	Per Net Ha	68.1
School	0.18	Per Student*	2.1
Total			109.3

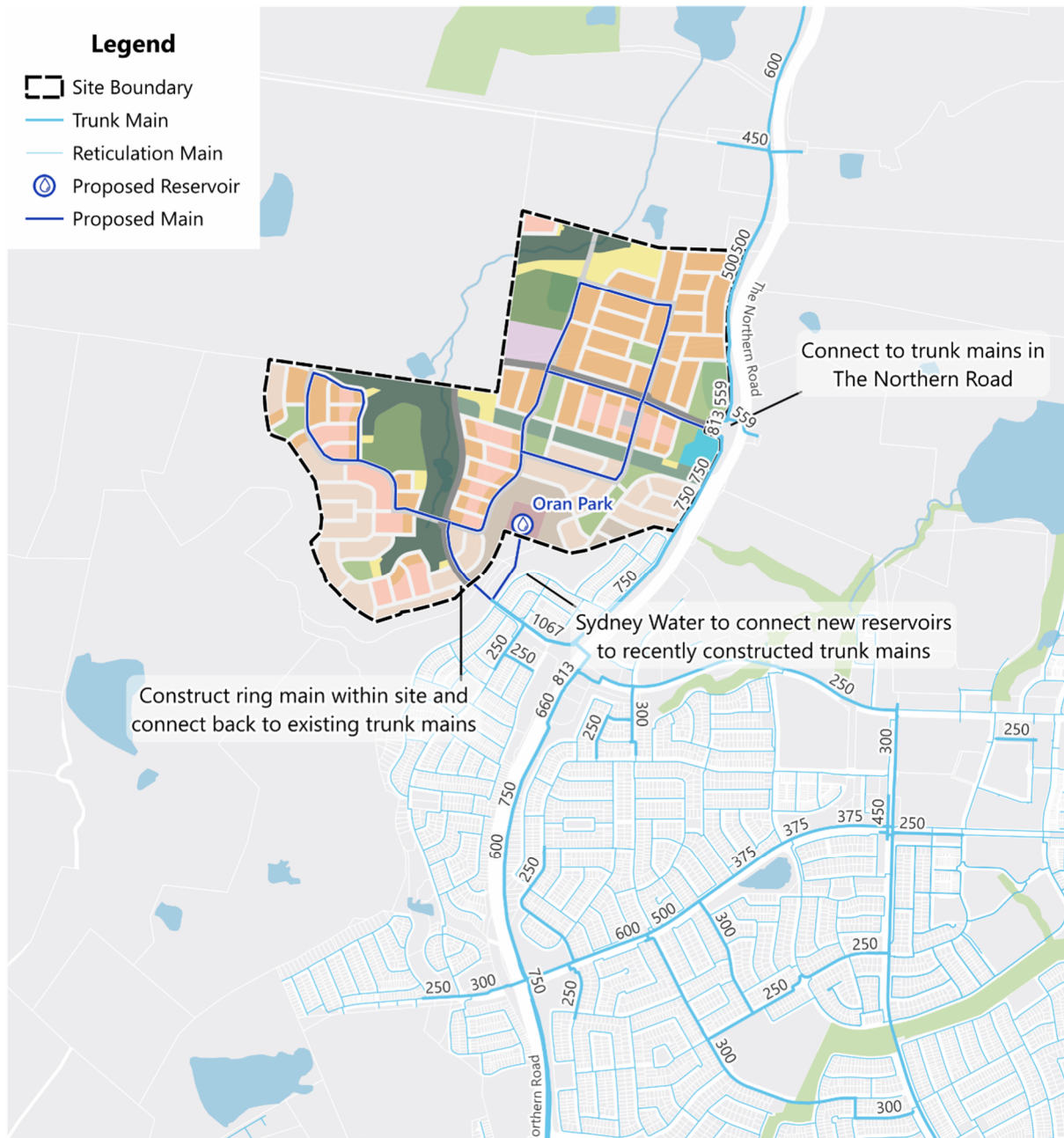
*Assumed 500 students total

Based on the above assessment, a single 350mm diameter trunk main would be required to support the proposed development. This would be supplied in a series of between two and four connections to The Northern Road approximately 250-300mm in size.

As discussed in Section 3.1, it is expected the site will be supplied by the new Oran Park reservoirs. These reservoirs are located adjacent the site boundary. Given the proximity of development to the proposed reservoirs, provision of potable water supply to the site is not expected to pose a constraint to development.

Sydney Water have provided a Feasibility Letter, which outlines servicing options for the site. The above strategy has been prepared based on the advice contained within this letter. A copy has been included in Appendix A of this report.

Figure 6 – Proposed Water Network



4 Sewer

4.1 Existing Network & Planned Infrastructure

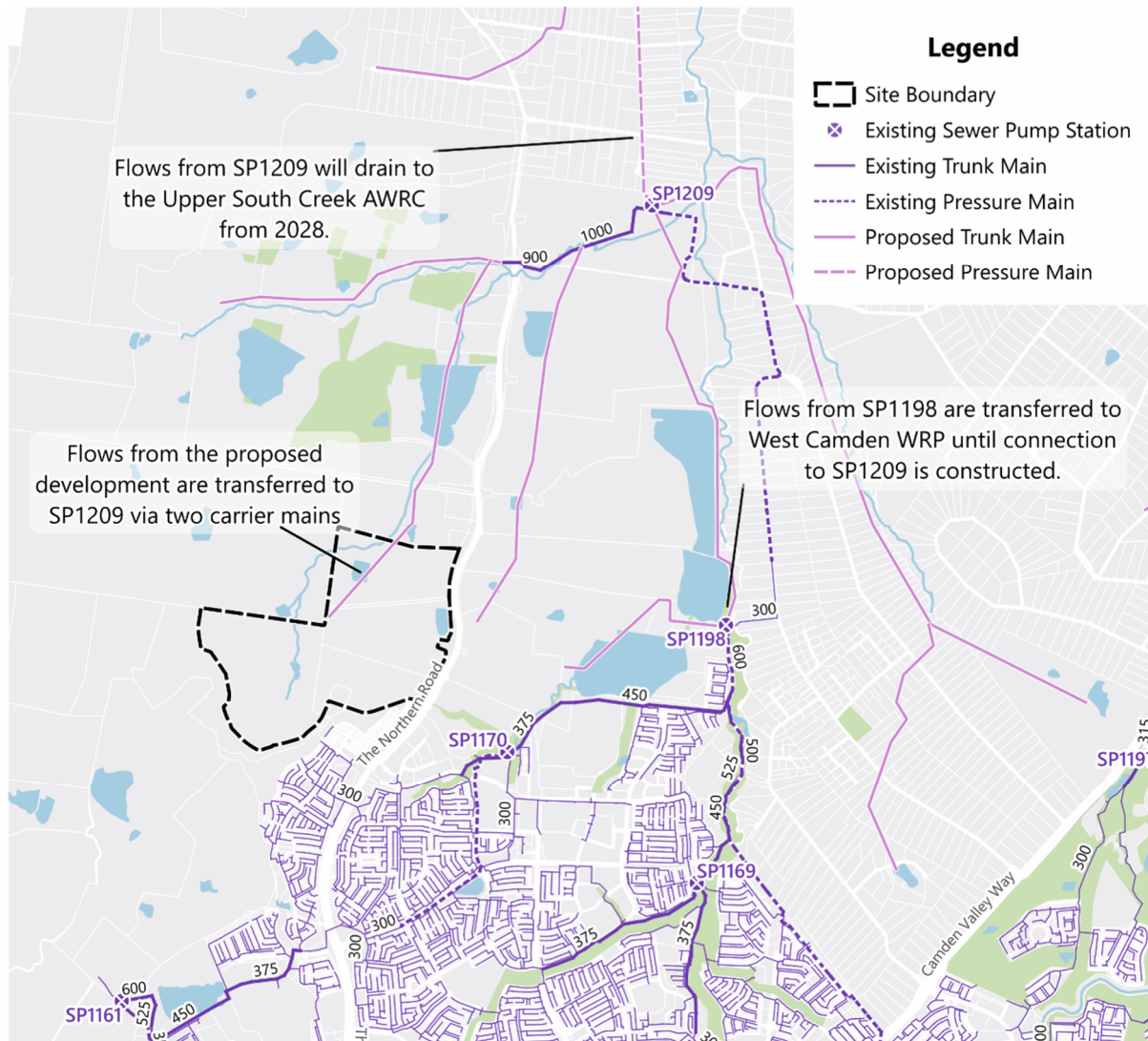
The site and surrounding area are not currently serviced by the Sydney Water sewer network. Existing rural properties in the area utilise on-site septic tanks for sewage collection and disposal. Newer developments within the Oran Park, Harrington Park and Turner Road developments, located to the south east of Precinct 5, are serviced by the Sydney Water sewer network. Sewer from these developments is currently transferred to the West Camden Water Recycling Plant (WRP), located approximately 8km south west of the site.

The SWGA and Aerotropolis are set to undergo significant change over the coming years which will require large investment in utilities infrastructure. Relevant to the site are the Lowes Creek sewer pump station (SP1209) and the associated carrier mains (Lowes Creek Carrier, Maryland Carrier and Pondicherry Carrier). These works will, in time, ensure there is adequate capacity to support the proposed development as well as development within the adjacent precincts in Lowes Creek Maryland and Pondicherry.

All sewer from the proposed development will drain to SP1209. This pump station was constructed with an interim capacity to support 4,000 dwellings, and will be upgraded to its ultimate capacity in 2028. This pump station will ultimately service Pondicherry, Lowes Creek Maryland, South Creek West and parts of Catherine Field and Catherine Field North and will be sized to support all development in these Precincts.

The Lowes Creek and Maryland Carriers will be sized to support Precinct 5, as well as downstream development within Lowes Creek Maryland. The Pondicherry Carrier will be sized to support development within the catchment, including the eastern catchment of Precinct 5, Pondicherry and Greenways. The planned infrastructure within the vicinity of the Precinct is shown in Figure 7.

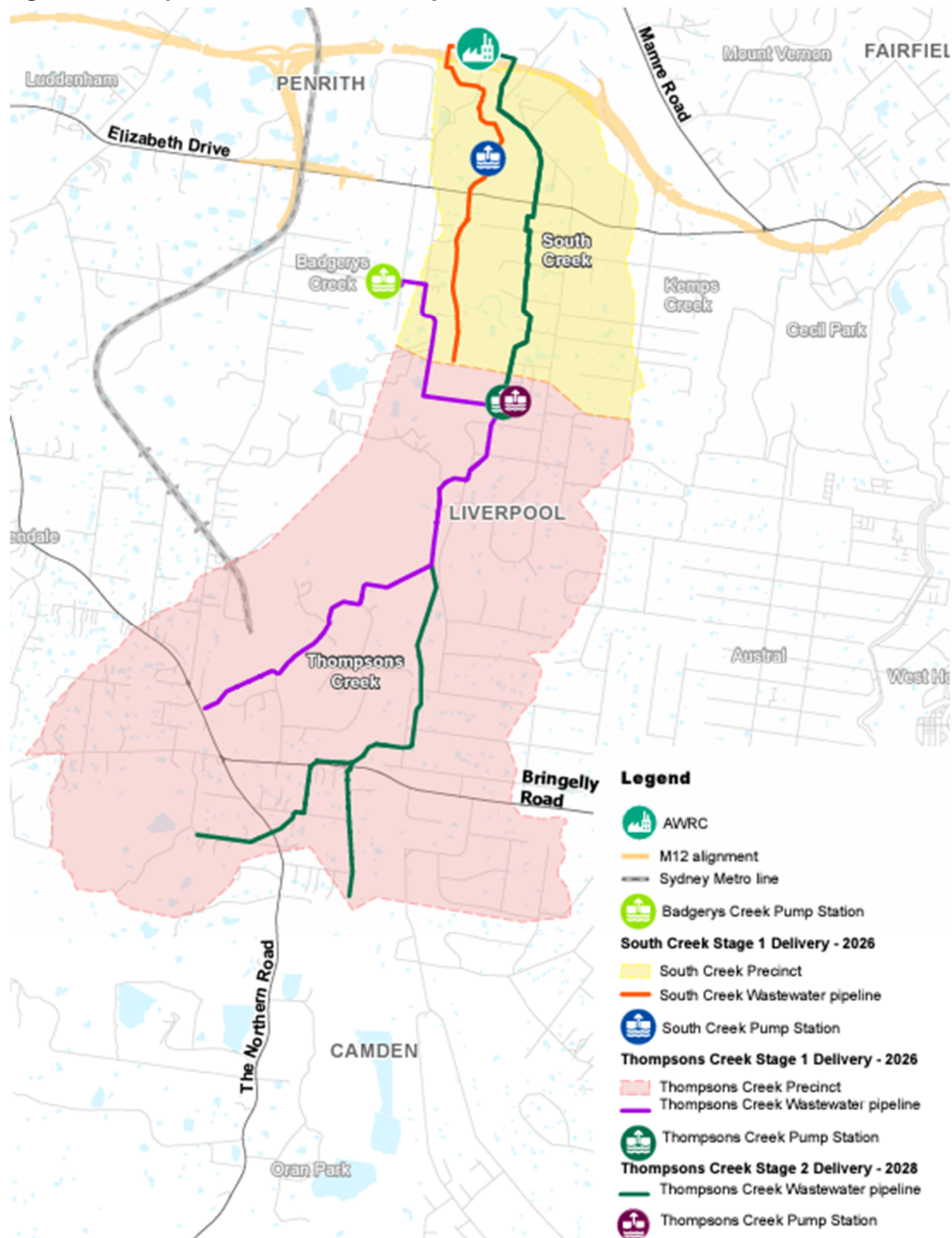
Figure 7 - Proposed Sewer Network



Ultimately, flows from SP1209 will be transferred to the Upper South Creek Advanced Water Recycling Centre (AWRC), located near the confluence of Badgerys Creek, Kemps Creek and South Creek, approximately 14km north of the site. The Upper South Creek AWRC will be operational in line with the opening of the Western Sydney Airport in 2026. The Upper South Creek AWRC is located a considerable distance from SP1209, and significant lead in infrastructure will be required to transfer flows from SP1209 to the AWRC.

These lead-ins will be delivered over two stages. The first stage of works (shown in purple on Figure 8) will be delivered in 2026, this infrastructure will support initial development within the Aerotropolis Core. The second stage of works will link SP1209 to the AWRC and is planned for delivery in 2028.

Figure 8 - Thompsons Creek Catchment Proposed Infrastructure



Source: <https://www.sydneywatertalk.com.au/uscnetworks> (accessed 18/12/24)

4.2 Sydney Water Growth Servicing Plan

Sydney Water's GSP indicates that trunk sewer infrastructure to support South Creek West is currently in the strategic planning phase. Trunk infrastructure within the Precinct is expected to be delivered by the developer in stages.

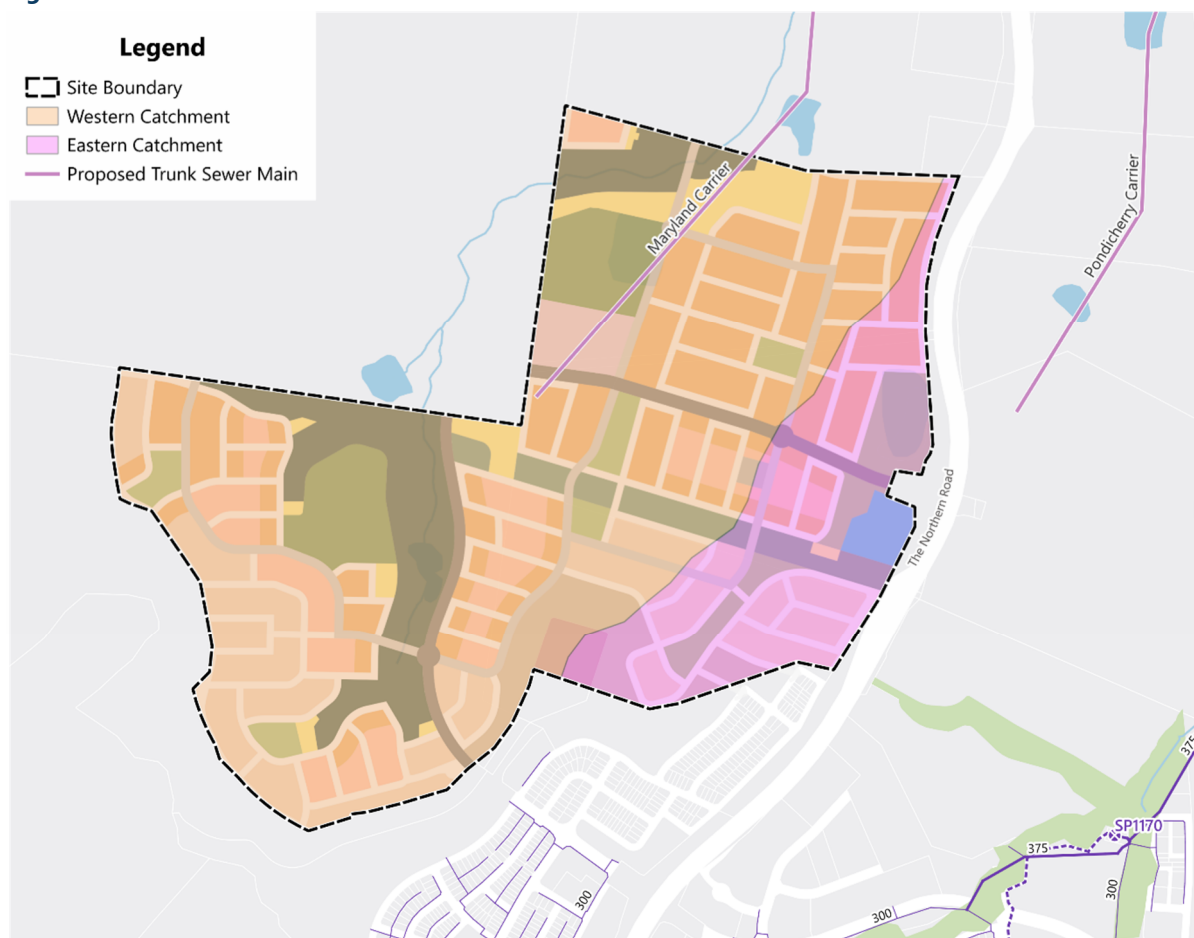
4.3 Sewer Catchments

The site falls into two sewer catchments, the western catchment drains to the Maryland Carrier and the eastern catchment drains to the Pondicherry Carrier. As discussed above, both carrier mains will discharge to SP1209. The sewer catchments are shown in Figure 9 and a summary of the required infrastructure for each catchment is provided in Table 3.

Table 3 - Sewer Catchment Data

Catchment	Size (Ha)	Carrier	SPS
Western	138.0	Maryland Carrier	SP1209
Eastern	34.9	Pondicherry Carrier	SP1209

Figure 9 - Sewer Catchments



4.4 Proposed Servicing Strategy

The site falls into two sewer catchments, both draining to SP1209. The western catchment drains to SP1209 via the Maryland Carrier while the eastern catchment drains beneath The Northern Road to the Pondicherry Carrier. Sydney Water have delivered SP1209 and Lowes Creek Carrier Section 1, however it is expected that both the Maryland and Pondicherry Carriers will need to be delivered by developers under a commercial agreement.

A high level assessment of the required trunk sewer infrastructure was undertaken using the Sewage Supply Code of Australia (SSA). The load on the sewer network is expressed in Equivalent Population (EP). The EP for each land use were extracted from the SSA. For residential uses, EP is expressed as a rate per dwelling and for non-residential uses, EP is expressed as a rate per hectare of development (gross). For schools the EP is related to the number of students. For the purpose of this assessment it has been assumed that the school site will accommodate 500 students, with an associated EP rate of 0.2/student.

The proposed land uses were split based on the catchments shown in Figure 9. The approximate total EP for each catchment was then calculated using the EP rates tabulated below.

Table 4 - Calculated Equivalent Population

Land Use	EP Rate	Eastern Catchment	Western Catchment	Total EP
Environmental Living (10 dw/ha)	3.5/dw	75	121	196
Low Density 1 (20 dw/ha)	3.5/dw	591	1,460	2,051
Low Density 2 (25 dw/ha)	3/dw	113	1,180	1,293
Medium Density (32 dw/ha)	3/dw	760	3,971	4,731
School	100	-	100	100
Total		1,540	6,831	8,371

Based on the above, a total equivalent population of 8,371 is expected within the site. Approximate trunk main sizing requirements have been determined for each catchment based on the above EP values. The Western Catchment will require the equivalent of a 300mm diameter trunk main, while the Eastern Catchment will require a 225mm main.

As discussed above, the sizing of the downstream trunk carrier mains that will service the development are unknown at this stage. Given these mains will ultimately service a larger catchment outside the Precinct 5 site, it is likely the size of these mains will be significant. Lead-ins to these mains from the site could be achieved through single 300mm and 225mm diameter mains for each catchment, or through a series of smaller mains.

Sydney Water have provided a Feasibility Letter which outlines servicing options for the site. The above strategy has been prepared based on the advice contained within this letter. A copy has been included in Appendix A of this report.

5 Electricity

5.1 Existing Network & Planned Infrastructure

The site is located within the Endeavour Energy (EE) electrical supply zone. The closest zone substation (ZS) to the site is the Oran Park ZS, which has a firm capacity of 45MVA. The Oran Park ZS is connected to the Bringelly ZS, located 4.4km north of the site, via 132kV transmission lines which traverse the eastern side of The Northern Road. The Bringelly ZS has a firm capacity of 19MVA.

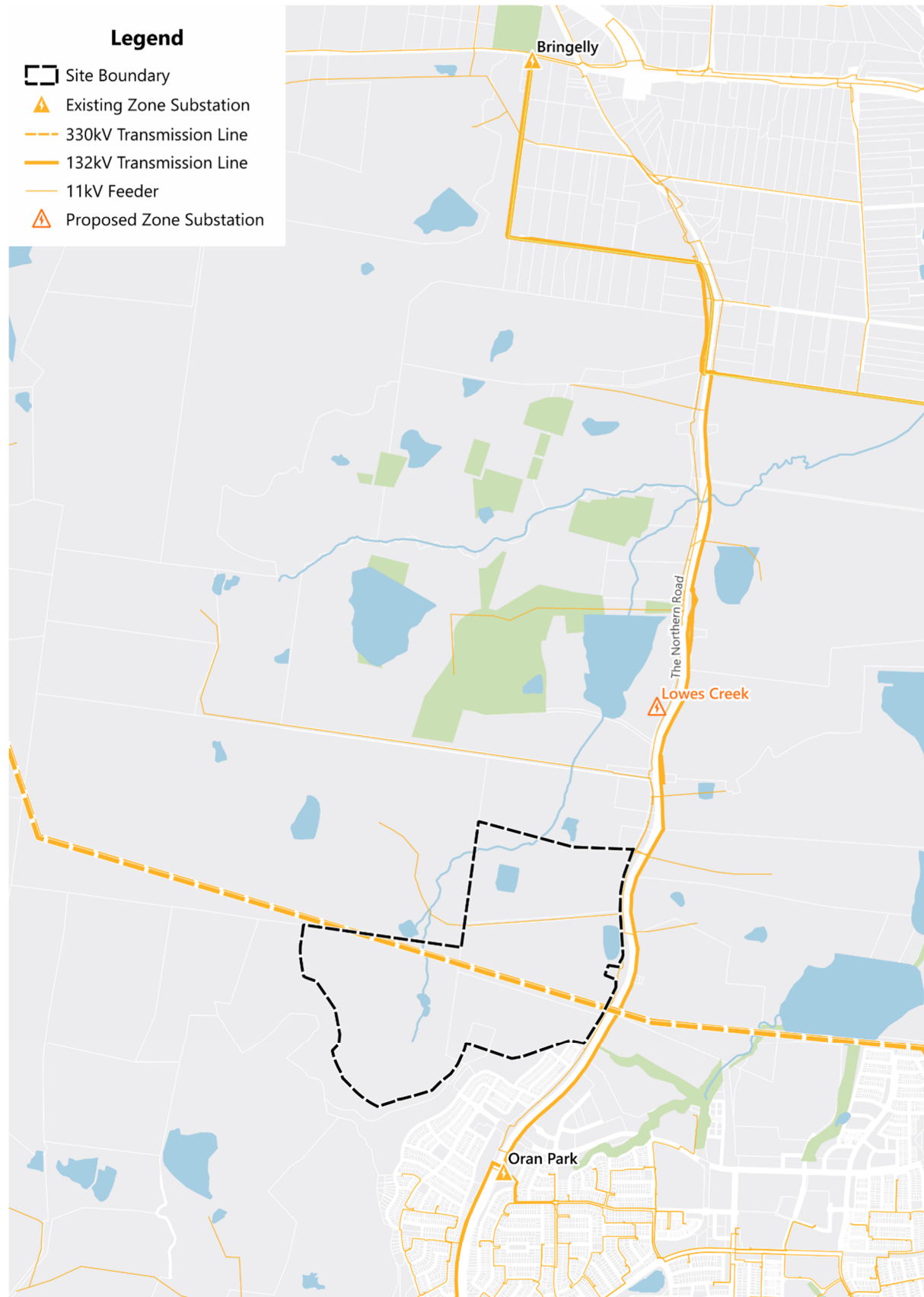
Endeavour Energy are planning for a new zone substation in the Lowes Creek Maryland Precinct. Initial development within Lowes Creek Maryland will be supplied from the Oran Park and Bringelly ZS, however the existing high voltage network does not have sufficient capacity to supply the total expected demand within this precinct. Construction of the Lowes Creek Zone Substation will commence in 2025 and commissioning is expected in mid-2028.

EE will also construct a new zone substation at Catherine Park. The delivery timing for this infrastructure is currently unknown. The Lowes Creek ZS and Catherine Park ZS will support growth across the SWGA and free up capacity at the existing Oran Park and Bringelly substations.

Given the Lowes Creek ZS is expected to be operational in 2028, it is likely that development of the site will be supplied via this ZS. EE will confirm the servicing requirements for each stage as formal connection of load applications are lodged.

The existing electrical network and proposed Lowes Creek ZS are shown in Figure 10.

Figure 10 - Existing Electrical Network



5.2 Proposed Servicing Strategy

Endeavour Energy undertook a high-level assessment of the proposed development in June 2022 based on a previous site layout and yield which included approximately 41% more dwellings than the current proposed yield. A copy of this assessment is provided in Appendix A. The following servicing strategy was prepared for the proposed development site based on the previous yields.

EE have previously estimated the total load generated by the development to be approximately 18MVA, which would require 4-5 11kV feeders. Based on the reduction in dwellings from the time this advice was prepared, we would assume that 2-3 11kV feeders will be sufficient to supply development, however this will be confirmed with EE during the next phase of the project.

High voltage feeders can be installed gradually as development progresses. Generally, an 11kV feeder can typically support 1,000 – 1,400 dwellings, however this is dependent on the type of dwelling, the distance from the zone substation and other factors.

At the time of the advice, EE noted that there was sufficient capacity at the Oran Park ZS to service demand of 18-20MVA within the site. In the three years since this advice was provided, the available demand has decreased as new developments have connected to this zone substation.

The advice also noted that should the project timeline surpass the residual capacity of the Oran Park ZS, supply could be sourced from the Lowes Creek ZS. It is expected that initial stages of development could be supplied via the Oran Park ZS, if capacity is available. Development will then likely be supplied by the new Lowes Creek ZS, once this infrastructure is operational.

New feeders will be delivered over time as development progresses. Based on the current staging plan, it is anticipated a new feeder will be required every 3-4 years. Existing 11kV feeders and low voltage assets within the site boundary will be demolished and removed to support the proposed development.

It should be noted that spare capacity cannot be reserved for future development, and further network capacity investigations will need to be conducted when the formal connection of load application is submitted to EE in future.

Based on the above assessment, provision of electrical supply to the site is not expected to pose a constraint to development. Endeavour Energy's servicing strategy for the site has been included in Appendix A of this report.

6 Gas

The site is not currently serviced by the Jemena natural gas network. Gas infrastructure supplies dwellings within the Oran Park precinct, to the south of the site. Should the site require gas infrastructure, Jemena will support the demand generated by development as required. Generally, there will be little demand for gas infrastructure generated by non-residential development.

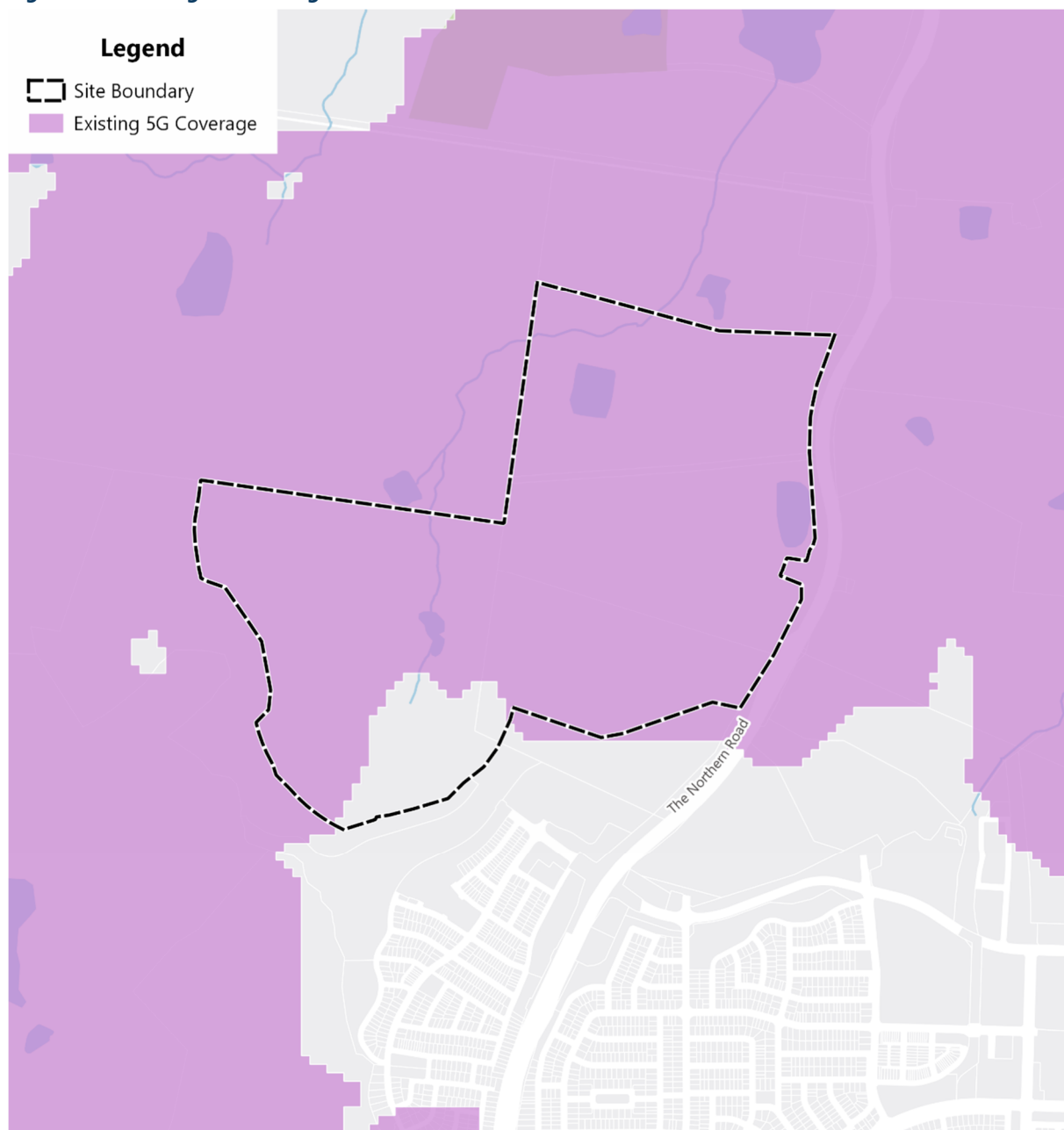
Should gas be required for the proposed development, it is likely trunk infrastructure will be extended from Oran Park to the site. Any gas servicing requirements for the site will be confirmed with Jemena during the next phase of the project.

7 Telecommunications

7.1 Telstra 5G Network

Telstra have blanket handheld 4G coverage across the site. Rollout of Telstra's 5G network has commenced across the SWGA. Most of the site can already access 5G coverage, with a small portion near the southern boundary of the site not currently covered by the network. Figure 11 shows the existing 5G network coverage in purple. Future infrastructure rollout across the SWGA will be staged to match the pace of development. It is expected that 5G network coverage will extend across the whole site over the coming years.

Figure 11 - Existing 5G Coverage



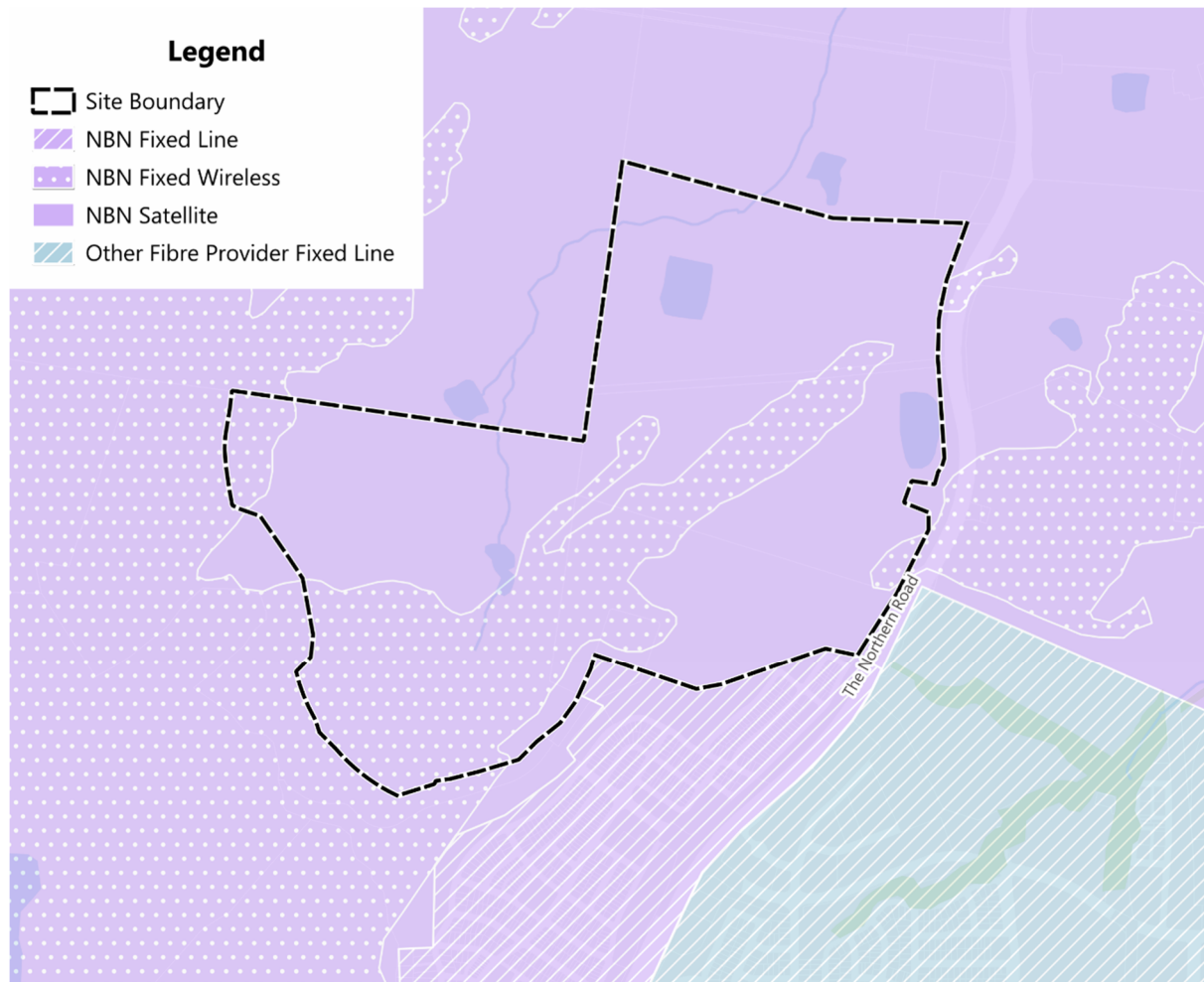
7.2 NBN

NBN Co. is the wholesale provider for new broadband connections. NBN Co. provides services on its local access network on equivalent terms to retail phone and internet providers, to provision for end users.

The site is currently serviced by a mix of satellite and fixed wireless technologies. Satellite technology uses signals from a satellite orbiting the earth to transmit broadband data to a small antenna or dish installed on the roof of a home or business. This technology is generally used in rural areas with large distances between residential dwellings. Some parts of the Precinct can access fixed wireless technology. Fixed wireless servicing involves data traveling from a transmission tower located up to 14km from premises to a rooftop antenna.

Fixed line technology is available within the Oran Park precinct. It is likely that fixed line technology can be extended to the site to supply future development. NBN Co. policy requires developers to provide pit and pipe infrastructure within the road reserve for all subdivisions. NBN assess each application request separately to negotiate commercial terms, however connection fees of up to \$600 and \$400 may apply to single dwelling units and multi dwelling units respectively. Please note these charges are subject to change.

Figure 12 - NBN Coverage



8 Conclusion

This report summarises the investigations relating to the infrastructure delivery strategies for the development site at Cobbitty Sub Precinct 5. Based on the assessments in this report, the proposed development can be adequately serviced by the infrastructure planned for the SCWLRA and greater SWGA. It is expected that this infrastructure can be delivered to align with the planned development timeline.

Appendix A – Authority Endorsement/Advice