

RESIDENTIAL SUBDIVISION

18-50 MAYNE DRIVE,
WESTDALE

INFRASTRUCTURE SERVICING REPORT
NOVEMBER 2024

This report has been prepared by the office of Spiire.
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1. BACKGROUND

Spiire has been engaged by [REDACTED] to undertake infrastructure servicing advice for the property located at 18-50 Mayne Drive, Westdale. The proposed development of the site is for 47 dwellings. The site is approximately 29ha with the intent to develop as large residential lots of 4,000 to 5,200 m² lot sizing with open space provisions.

The site is within the local government area of the Tamworth Regional Council (TRC). The location of the site is indicated in Figure 1.

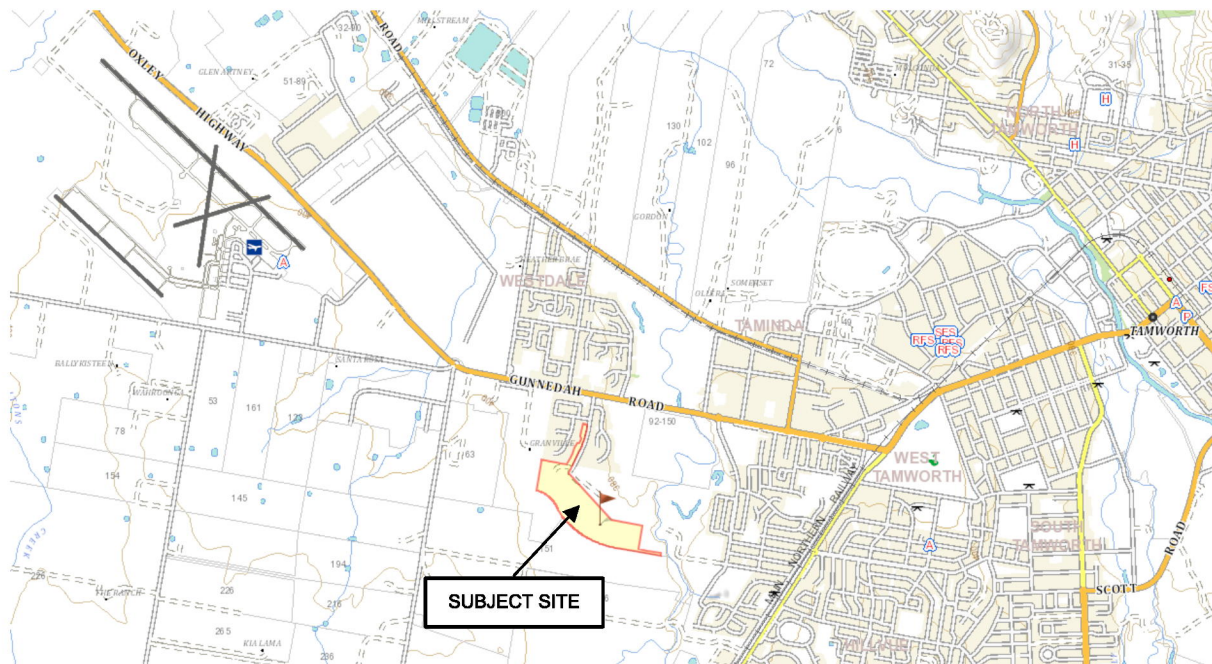


Figure 1: Site location (Source: SIX Maps)

The site of works is located at 18-50 Mayne Drive, Westdale. The site is 29ha and currently has areas of Low Density Residential (R2) and Primary Production Small Lots (RU4) classifications as indicated in Figure 2. The subject site is bordered by residential zoning to the north, and small lot primary production zoning to the east, south, and west. The site is currently sloped grassland.

The existing site predominantly falls from northwest to southeast towards the Timbumburi Creek to the southeast.

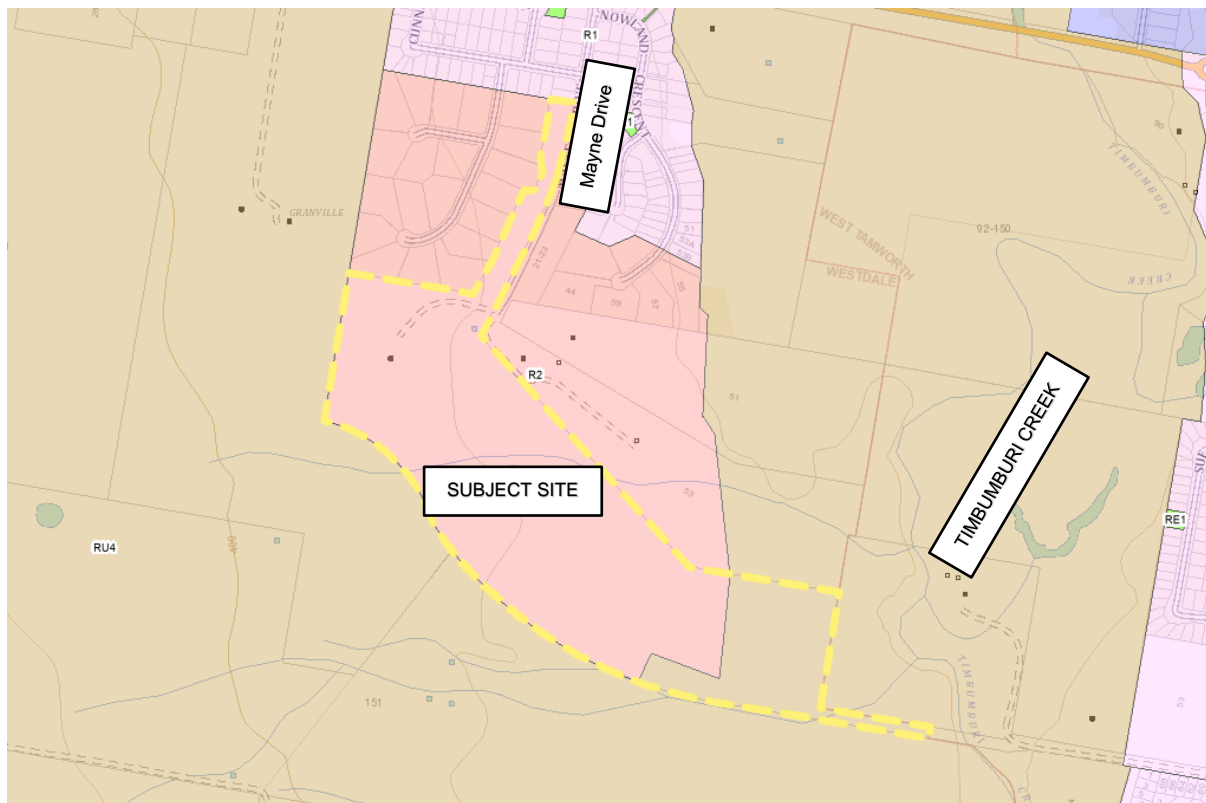


Figure 2: Site zoning (Source: NSW Planning Portal)

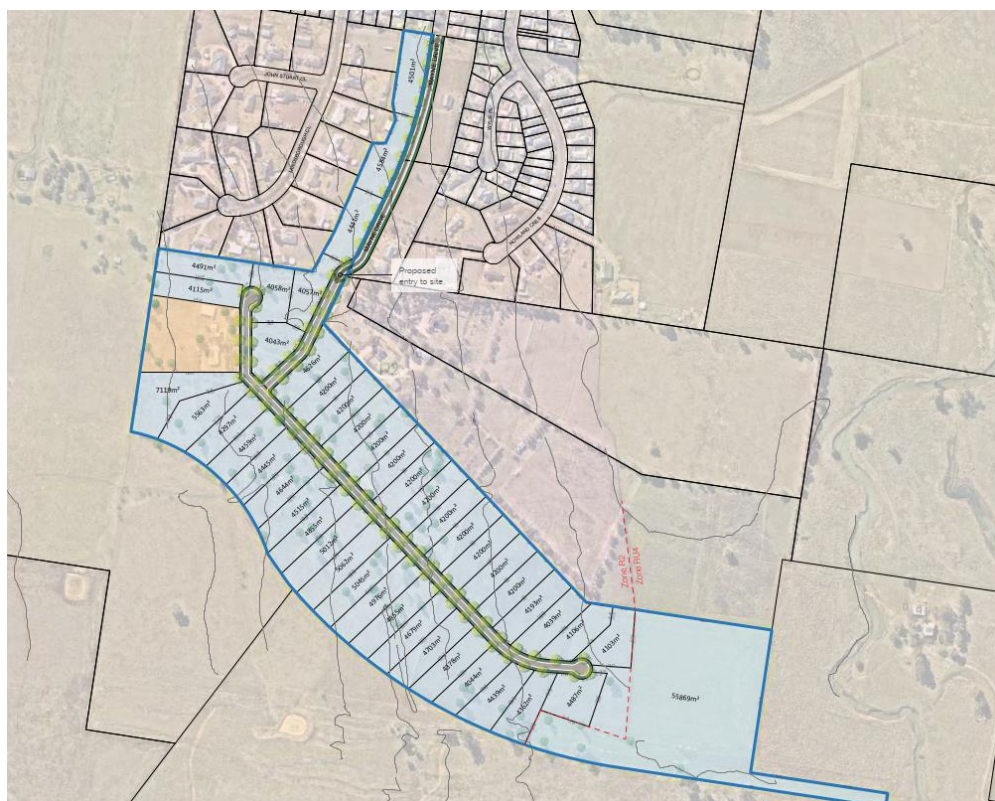
2. ROAD INFRASTRUCTURE

The road network surrounding the site is shown in Figure 3.

Ingress and egress to the site is proposed to occur via Mayne Drive. The existing Mayne Drive is a 20m road reserve and has a paved width of 12m. The 12m paved width allows for 2 lanes of traffic and 2.5m extra width for roadside parking to either side of the road in line with a road classification of Local – General Residential per TRC Engineering Design Minimum Standards (Version 2 2023, part 2).

The traffic report for the site (CJP Consulting Engineers, 2024) has concluded that a 20m road reserve with 2x3.5m travel lanes with 500mm shoulders to either side is suitable for road reserves throughout the site.

Mayne Drive traverses the northeast border of the development site and falls within a right-of-carriageway easement, as shown in Figure 3. The section of Mayne Drive indicated in Figure 3 will need to be upgraded to account for traffic movements generated from this and any future developments to approval of TRC. The pavement width and road reserve width will continue through to the proposed development since it will be servicing greater than 15 potential dwellings.



3. DRAINAGE INFRASTRUCTURE

The responsible authority for undertaking maintenance of existing drainage infrastructure and approving plans for new infrastructure is the TRC.

It is proposed that the northern part of the site will discharge (indicated in cyan) to the existing drainage infrastructure in Mayne Drive subject to network analysis and consultation with TRC to confirm capacity.

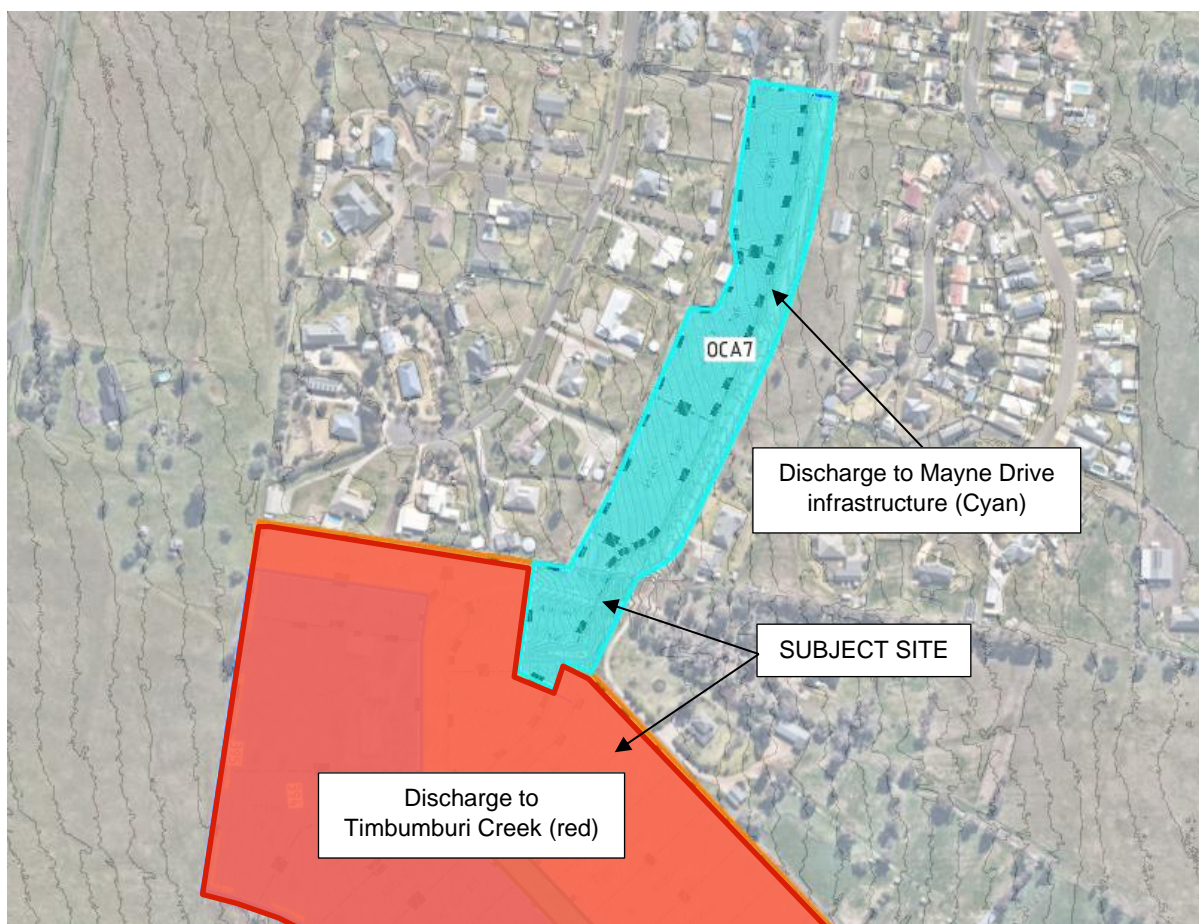


Figure 5: Proposed portion of lot to discharge to existing drainage infrastructure in Mayne Drive (Cyan coloured area)

There is potential for the remainder of the site to discharge to the southeast into the Timbumburi Creek via an approved outlet. Initial consultation with TRC has confirmed that there are no onsite detention, retention, or water quality improvement requirements.

A site Drainage Servicing Strategy which provides further detail on drainage has been prepared for provision to TRC for their approval under separate cover.

4. SEWER INFRASTRUCTURE

TRC is the responsible service authority for sewerage assets.

According to the TRC database, there is no feasible sewerage infrastructure surrounding the site for connection into.

The development has proposed provision of septic systems for each individual lot, aside from those in the north (Lots 140,144, 145,146, and 147) able to reticulate into the existing network in Mayne Drive.

There is potential for the lots in the north of the development to connect into a 150mm diameter sewer line traversing the front boundary of lots 28-25 Landsborough Close. It is proposed to connect lots in the northern portion of the site to the pit indicated below in Figure 6.



Figure 6: Existing sewer infrastructure in vicinity of site (Source: TRC database)

5. WATER INFRASTRUCTURE

TRC is the responsible service authority for water supply.

The asset data base shows an existing DN250 DICL line traversing Mayne Drive, terminating at the entrance of the development. There are 175 lots in the housing estate to the north of this development, all supplied by branches into this DN250 main. An addition of this development of 47 lots brings the overall amount of lots serviced by this main to 222 lots total.

This water main is considered suitable for the addition of the proposed development in accordance with:

Tamworth Regional Council Engineering Design Minimum Standards (Version 2 2023, part 4) which defines the minimum pipe size for reticulated water mains in residential areas to be 100mm; and,

WSA-03 (2011, V3.1, part 1, Table 3.2) which identifies the capacity of DN250 DICL water mains to be 650 residential lots or 370 rural residential lots. This capacity allows for the 222 lots plus allowance for future developments.

In order to reach the development, the DN250 DICL water main terminating at the north side of the development will need to be extended through a right-of-carriageway easement. TRC are yet to approve extension of this main through the right-of-carriageway easement.

A preliminary layout of water main extension through the development is indicated in Appendix A.

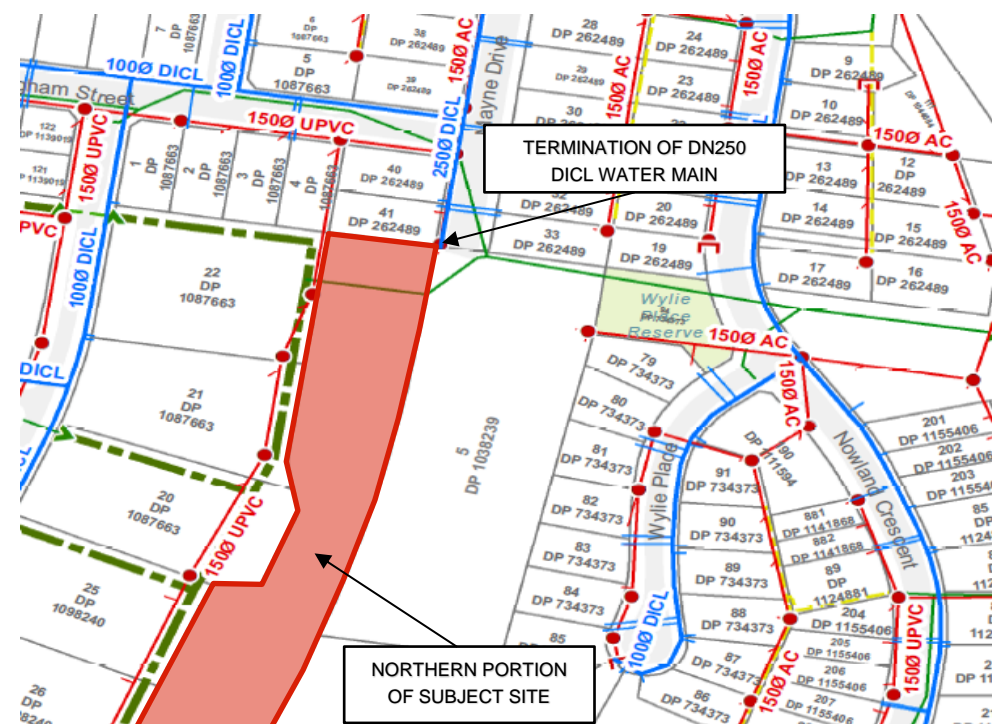


Figure 7: Water infrastructure in vicinity of site (Source: TRC database)

6. ELECTRICITY INFRASTRUCTURE

Essential Energy is the electrical distributor for this area.

On review of the electrical supply infrastructure surrounding the subject site, the existing assets are as follows:

- ▶ There is an existing 500kVA distribution substation kiosk (#18-3930) in Mayne Drive currently supplying 55 premises. This kiosk substation currently supplies surrounding residential properties; however we believe the kiosk substation has sufficient spare capacity to be able to service the proposed development. We expect the development to be serviced from this existing kiosk substation. Spare capacity and final connection arrangements are to be confirmed by Essential Energy.

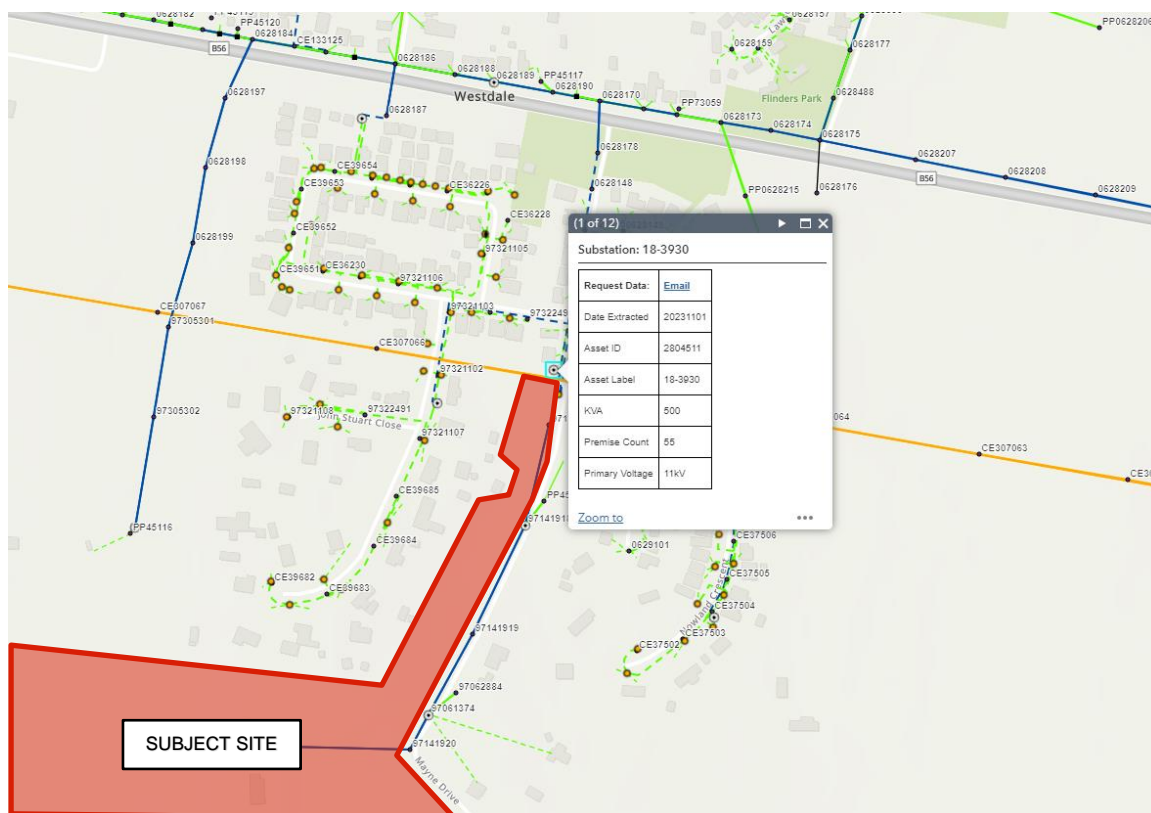


Figure 8: Details of existing 500kVA substation (Source: Essential Energy: Network Information Portal, Updated 18/08/2023)

Provision of supply to the subject site will likely consist of the following supply arrangement:

- ▶ Provision of a new supply connection to the site from the existing 500kVA Essential Energy distribution substation (#18-3930) in Mayne Drive. Final connection arrangement to the Powercor network to be confirmed by Essential Energy.
- ▶ All installed electrical infrastructure will have to be above the 1:100 flood level as per standard authority requirements.



Figure 9: Existing electricity infrastructure in vicinity of the proposed site (Source: Essential Energy: Network Information Portal, Updated 18/08/2023)

7. TELECOMMUNICATIONS INFRASTRUCTURE

The NBN rollout map indicates that NBN Fixed Wireless (FW) is the current connection type used at this address.

According to the NBN asset maps found within BYDA, there are existing NBN assets in Mayne Drive to which the development can connect to and access the NBN network. The conduit sizes in these roads are expected to be of sufficient size to allow the development to be connected to the existing NBN network.

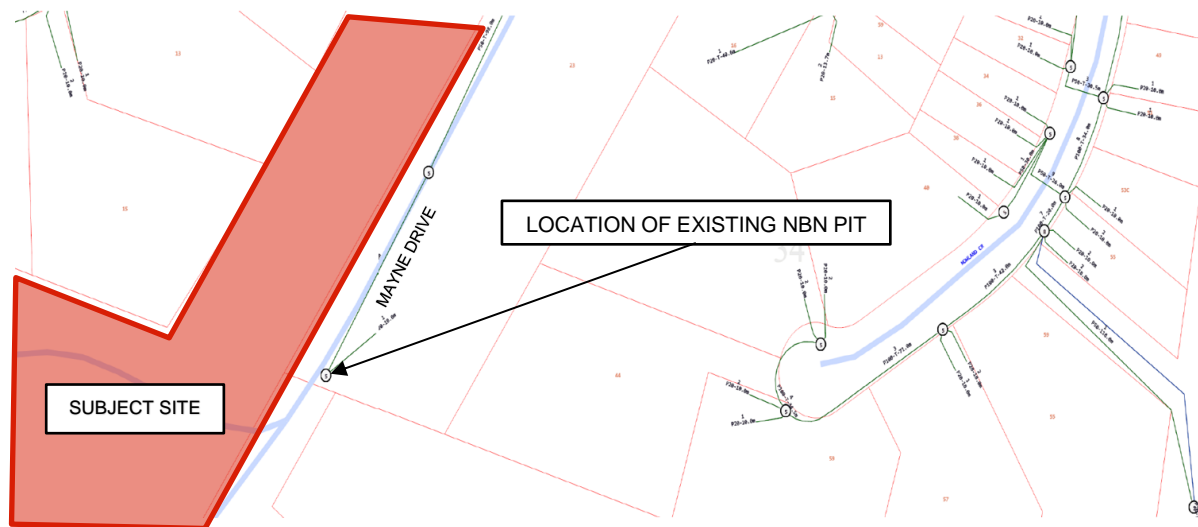


Figure 10: Telecommunications infrastructure in vicinity of the subject site (Source: NBN asset database)

8. RISKS AND QUALIFICATIONS

- ▶ The above servicing advice is derived from information publicly available at the time of preparation and reflect Spiire's current understanding of the site and its surrounds.
- ▶ No review of any Flora and Fauna and or Cultural Heritage has been undertaken.
- ▶ Components of this report are still subject to approvals from the relevant service authorities.

9. SUMMARY

This servicing assessment was completed on behalf of Freedom Development Group for a 29ha site at 18-50 Mayne Drive, Westdale.

The development is serviceable with existing local infrastructure to the site:

- ▶ Road infrastructure: The site connects on to Mayne Drive, a 20m road reserve, servicing all dwellings within the development. All internal roads within the development to be provided with a 20m road reserve
- ▶ Drainage infrastructure: A Stormwater Management Strategy has been prepared under separate cover to provide a detailed assessment of drainage assets. The site has a moderate gradient from northwest to southeast to discharge into an existing waterway. There are no onsite detention requirements, and no requirement to meet water treatment objectives.
- ▶ Sewer infrastructure: Individual septic systems have been proposed for the majority of the site, with some lots able to be serviced by reticulated gravity network for the northern portion of the site.

- ▶ Water infrastructure: There is opportunity to connect into a DN250 DICL water main traversing Mayne Drive which has adequate capacity to service the development with potable water.
- ▶ Electricity infrastructure: There is an existing 500kVA distribution substation to the north of the site in Mayne Drive which we believe has capacity to service the development. This is subject to Essential Energy input.
- ▶ Telecommunication infrastructure: There is ample telecommunications infrastructure