

Our Ref: 19-000555

6 November 2019

General Manager  
Penrith City Council \\  
PO Box 60  
Penrith, NSW, 2751

Attention: The General Manager,

**RE: Proposed 17 Lot Rural Residential Development - Lot A DP 392643 and Lot 21 DP 1010514, Horsley Road, Kemps Creek**

Dear Sir/Madam,

**Background**

The proposal development comprises 16 x 2 ha. (approx.) residential lots and a large residue lot off Greenway Place, Kemps Creek. Town water supply is available in Horsley Road (DN 150) and Greenway (DN 100). An existing Sydney Water 300mm reticulated sewer main is located approximately 700 metres to the west of the site on Lot 82 DP 752041. More detailed comments on water and sewer services are provided below.

The subject site lies largely within the Penrith City Council with a minor portion within Fairfield City Council.

**Water Supply**

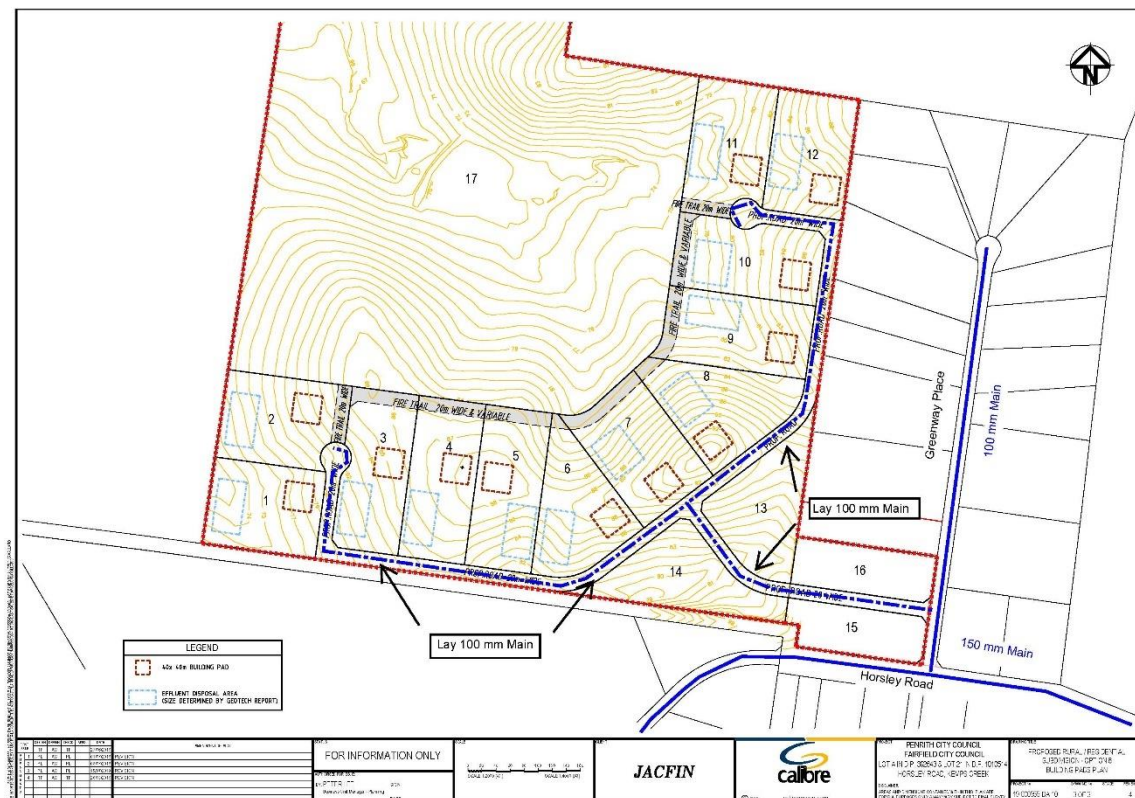
There is an existing DN150 water main in Horsley Road, adjacent to the site, which supplies the current 20 lot development in Greenway Place and the Capital Hill Area. Supply is from Sydney Water's Cecil Park Reservoir which has a full storage level of approximately 152 metres. The highest point on the subject site is RL 94 metres. Assuming typical head losses through the water network preliminary assessment indicates that there should be adequate pressure (minimum of 20 metres) at the frontage of each of the proposed lots.

At this stage Sydney Water has not provided any advice on the supply conditions in the area and therefore supply to the subject lots will need to be confirmed with hydraulic modelling. However, we believe that there should be sufficient capacity in the system for the proposed development.

Sydney Water will provide their formal requirements at the Section 73 application stage. We expect that Sydney Water's requirements will be as follows;

- Lay approximately 1,500 metres of DN 100 water main off the DN 100 main in Greenway Place.
- Provide all lots with frontage to the main
- Provide a 20 mm domestic service to all properties
- Amplify local water supply system (if required by Sydney Water).

Approximate cost of water supply reticulation and watermain extension is estimated at \$ 300,000.



## Wastewater

### • Reticulated Sewer (Sydney Water)

There is a DN 300 sewer located in Lot 82 approximately 700 metres to the west of the proposed development. Preliminary investigations indicate that the proposed development could drain via gravity to this sewer. However, given the length of DN 150 sewer lead in required and the 1 km of sewer reticulation the cost is estimated to be in excess of \$30,000 per lot. It is unlikely that the existing DN 300 was designed to cater for rural residential lots as proposed by the subject development site. Additionally, the long length of sewer main required to connect to the existing system and the associated low flows could result in odour and septicity issues.

### • Onsite Wastewater Management

The installation of On-site Sewage Management Systems require approval from Council under Section 68 of the Local Government Act 1993. Both Penrith and Fairfield Councils permit installation and operation of On-site Sewage Management Systems subject to meeting their specific requirements.

Under Fairfield Citywide Development Control Plan (DCP), it is noted that rural zonings such as the subject land (RU4 – Primary Production Small Lots) are not served by the Sydney Water reticulation sewerage system. As such, the DCP requires all new dwellings in the rural area to be provided with an onsite wastewater management system to deal with wastewater.

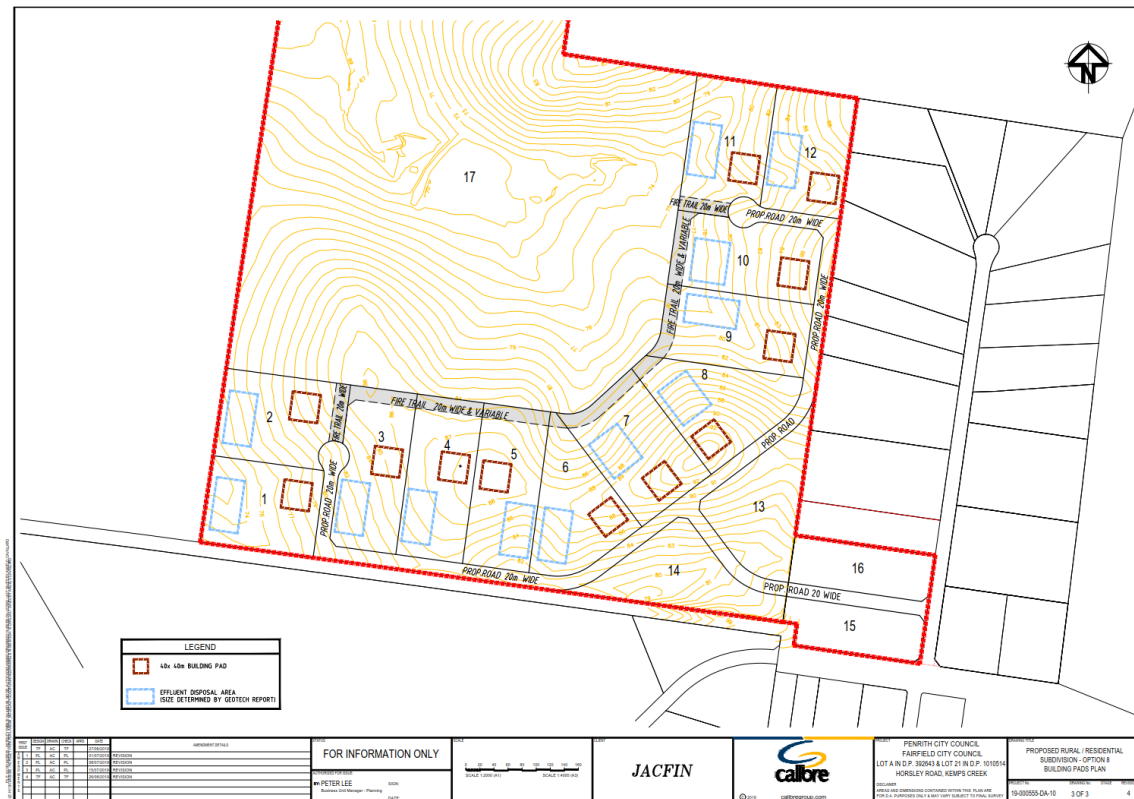
It is therefore proposed that the subject lots located within the Fairfield City Council area be serviced by individual onsite sewage management systems which are installed and maintained in accordance with Council's *Onsite Sewage Management Policy*. This requires a minimum of 1600 m<sup>2</sup> of dedicated area for the disposal of wastewater and minimum buffer distance requirements.

The management of on-site wastewater systems within Penrith City Council, is administered through its *On-site Sewage Management and Greywater Reuse Policy* and applies to proposed domestic onsite systems in unsewered areas such as the subject site. In regards subdivision proposals the Policy states that in unsewered areas that rely on onsite sewage management a minimum lot size of 1 Hectare applies. Minimum buffer distances to consider for the design of onsite systems are also identified in the Policy. It is therefore proposed that the subject lots located within Penrith City Council area be serviced by individual onsite sewage management systems which are installed and maintained in accordance with Council's *Onsite Sewage Management and Greywater Policy*.

A Wastewater Assessment Report will be prepared by a qualified consultant that will address the requirements of the appropriate onsite sewage management policies for both Councils as part of the subdivision application. The proposed effluent

disposal areas are indicatively shown in the figure below and are subject to current site assessments (eg soil) being undertaken as part of the preparation of the Wastewater Assessment Report.

The typical cost to supply and install an onsite wastewater management system is estimated to be \$15,000 - \$20,000 per lot.



Yours faithfully  
**Calibre Professional Services Pty Ltd**