



**WATER AND SEWERAGE SERVICING**

**PROPOSED INDUSTRIAL DEVELOPMENT**

**OFF WALLGROVE ROAD, HORSLEY PARK**



**15<sup>TH</sup> MAY, 2013**

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## DOCUMENT CONTROL

X12446 Proposal

Issue	Date	Issue Details	Author	Checked	Approved
A	10 <sup>th</sup> April 2013	Services Report	PW	MB	
B	16 <sup>th</sup> April, 2013	Services Report	PW	PF	

## **Background**

The proposed 52 Ha. Gascorp Development site is located immediately south of the Sydney Water Pipeline with access being from Wallgrove Road. The area is served by two water supply systems, Cecil Hills and Minchinbury Elevated. The site can drain to Quakers Hill STP via the Eastern Creek Submain Sections 3, 4 & 5. The nearest sewer is located some 200 metres to the north of the site.

Sydney Water have previously issued a Feasibility Letter under case 127941 in May, 2012 which recommends the following servicing advice;

### **Water – (Extract from feasibility letter)**

“The ultimate drinking water servicing strategy for the development area is detailed in the report prepared by GHD for Goodman Properties Services (Pressure Asset Management Scheme Requirements – Scheme: Oakdale Industrial Reduced)

The trunk infrastructure has been sized to service approximately 38.7 ha. of developable industrial land adopting a maximum day demand of 40 kilolitres per hectare per day.

The development area will be serviced with extensions from the proposed 450 mm main in Burley Road within the pressure reduced zone.

Construction of trunk infrastructure has commenced under cases 122065 and 122653.”

### **Sewer – (Extract from feasibility letter)**

“The proposed development area falls within the Eastern Creek Submain Catchment. Preliminary investigation shows that the nearest main available for connection is the 375 mm main located approximately 800 metres north of the subject property. (Case 72070WW UBD Ref: 207 F4)”

The above feasibility advice is given as a guide only and “The information is accurate at today’s date only.” Sydney Water will not issue formal servicing advice until a Section 73 application is submitted following Council approval. At this stage the developer is entitled to consider other servicing options for discussion with Sydney Water. Following are a number of other options that may be considered.

## Water Supply

The subject site is located just south of the Sydney Water Pipeline. Sydney Water has planned to service the areas south of the pipeline from Cecil Hills Reservoir. Alternatively, the site can be serviced from the Minchinbury Elevated Reservoir which has capacity and the mains are closer to the site.

### Preferred Option – Supply from Minchinbury Elevated Reservoir

The preferred option for the proposed industrial estate to supply water from the Minchinbury Water Supply System (Elevated Reservoir) which is located north of the Sydney Water Pipeline. The nearest main available for connection is a 250 mm main at the corner of Wallgrove Rd and Roussell Rd. This is approximately 560 metres to the north along Wallgrove Rd. It is our understanding that the Minchinbury Elevated Reservoir Zone has capacity to serve this development, however, this will need to be confirmed by Sydney Water.

Sydney Water's previous planning has allowed for this site to be supplied from the Cecil Hills Reservoir (off the proposed 450 mm main in Burley Rd) . However, the current road pattern does not allow for a reasonable link to this main. Either the lead in water main would have to be laid through private land within easements or approximately 2.5 kms of lead in main would need to be laid from the south along Wallgrove Rd.

Given the location of this site and its proximity to the Minchinbury Water Supply System we believe it is reasonable to service the site from this system.

### Demand Sensitivity

Developable Site Area	Max Day Demand Allowance	Max Day Demand	Max Hr Demand.	Lead in Main Dia.	Comment
45.7 Ha (Brown)	20 Kl/Ha/day	914 Kl/day	1462 Kl/day	200 mm	
	30 Kl/Ha/day	1371 Kl/day	2193 Kl/day	200 mm	Most Likely
	40 Kl/Ha/day	1828 Kl/day	2924 Kl/day	250 mm	High
38.7 Ha. (Sydney Water)	40 Kl/Ha/day	1548 Kl/day	2477 Kl/day	200 mm	

Based on Sydney Water's demand allowance, a 200 mm main off the 250 mm main at Roussell St should be sufficient for this development. ( Sydney Water to confirm.)

Note: A pressure reducing valve may be required.

## Sewerage

The subject site drains to the Eastern Creek Submain Section 5 which has capacity for this development.

Sydney Water's preferred option to sewer the site is to connect to the 375 mm sewer located approximately 800 metres to the north. A 225 mm sewer would be extended generally along Wallgrove Road.

## Demand Allowance

Area	EP Allowance	EP	PDWF	PWWF	Pipe	
45.7 Ha.	50 EP/Ha	2285 EP	14.4 l/sec	27.8 l/sec	225 min	WSA
					@ 0.56%	
38.7 Ha.	50 EP/Ha	1935 EP	13.9 l/sec	25.9 l/sec	225 mm	SWC

## The Next Steps

It is recommended that the following actions be taken to determine the most cost effective servicing solution for the site;

- Submit a new feasibility application with the Brown preferred scheme for Sydney Water to assess.
- Lodge a Fireflow/Pressure Inquiry at the corner of Wallgrove Rd and Roussell Rd to confirm the pressure in the main at this point.
- Obtain the Work as Constructed Plans of the Eastern Creek Submain Section 5 to confirm pipe details.
- If necessary, request a meeting with Sydney Water Urban Growth Team to discuss alternative servicing solutions.

## Summary

As outlined above there are various options for providing the subject site with water and sewer services. Our preferred option to service the site is to supply water from the Minchinbury Water Supply System and to connect to the existing 450 mm sewer (Eastern Creek Submain Section 5) via a 225 mm lead-in sewer. From our investigation we are confident the respective services can be economically provided.

  
22/5/2013

**Peter Wiggan**  
**Senior Project Manager, Urban Development**  
**Brown Consulting (NSW) P/L**