

6 May 2024

David Schwebel

Industry Assessments

Department of Planning, Housing and Infrastructure

Our Reference: 213132

RE: SSD- 46983729 Westlink Industrial Estate Stage 2 at 1030-1048 & 1050-1064 Mamre Road, 59-62 & 63 Abbots Road and 290-308 Aldington Road, Kemps Creek

Thank you for notifying Sydney Water of SSD-46983729 at 1030-1048 & 1050-1064 Mamre Road, 59-62 & 63 Abbots Road and 290-308 Aldington Road, Kemps Creek, which proposes construction and operation of one warehouse and distribution centre with ancillary office space and a total GFA of 38,640m², car parking and landscaping; bulk earthworks and retaining walls to establish a pad for the warehouse and future development pads across the remainder of the estate; construction of access roads, site servicing, stormwater infrastructure, signage and subdivision.

Sydney Water requests additional information and further clarification regarding stormwater matters to progress the referral. DPHI is advised to re-refer this SSDA for Sydney Water's review once stormwater issues have been addressed.

Sydney Water has reviewed the application based on the information supplied and provides the following comments to assist in planning the servicing needs of the proposed development.

Water Servicing

The proposed development is currently located within the Cecil Park Reduced Water Supply Zone (WSZ) and is part of the Prospect South Delivery System.

The Cecil Park WSZs are currently supplied with rural drinking water infrastructure and do not have capacity to service developments within the Mamre Road Precinct prior to the delivery of major system amplifications.

Sydney Water is currently delivering trunk drinking water infrastructure to increase supply to the area.

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Ultimate servicing

Ultimate servicing of this area will be from the Cecil Park Reduced 1 Pressure Zone. The following assets will be required for ultimate servicing.

- DN 300 and DN500 mains along Mamre Road between Elizabeth Road and Abbots Road, connecting to existing mains in Elizabeth Drive.
- New DN450 main along Abbots Road
- New DN375 main along Aldington Road

The servicing strategy, sizing and staging of the future mains is indicative and subject to change based on future planning.

Interim servicing

Interim servicing of the development can be provided from the Cecil Park Remainder WSZ **after the following assets are delivered**. Refer to Figure 1 below.

- Approximately 2km of DN300 main in Aldington Rd under CN186885.
- Approximately 1km of DN300 amplification along Aldington Road under CN194521
- Installation of Dividing Valves (DV) to be installed to separate supply between water supply zones (WSZ) – refer to indicative location of DVs on attached plan.
- DN300 lead-in extension from Cecil Park Remainder zone to Oakdale development – this is required to change servicing from Minchinbury EL WSZ to Cecil Park Remainder WSZ.
- The mains within the development – developer delivered.

The above mains under interim servicing are required to be delivered prior to servicing being available for this development.

Precinct trunk drinking water mains and reticulation mains are required to be sized as per the WSAA code. The attached plan (Figure 1) indicates reticulation sizing above the code and indicative location for DVs, which will be confirmed at detailed design.

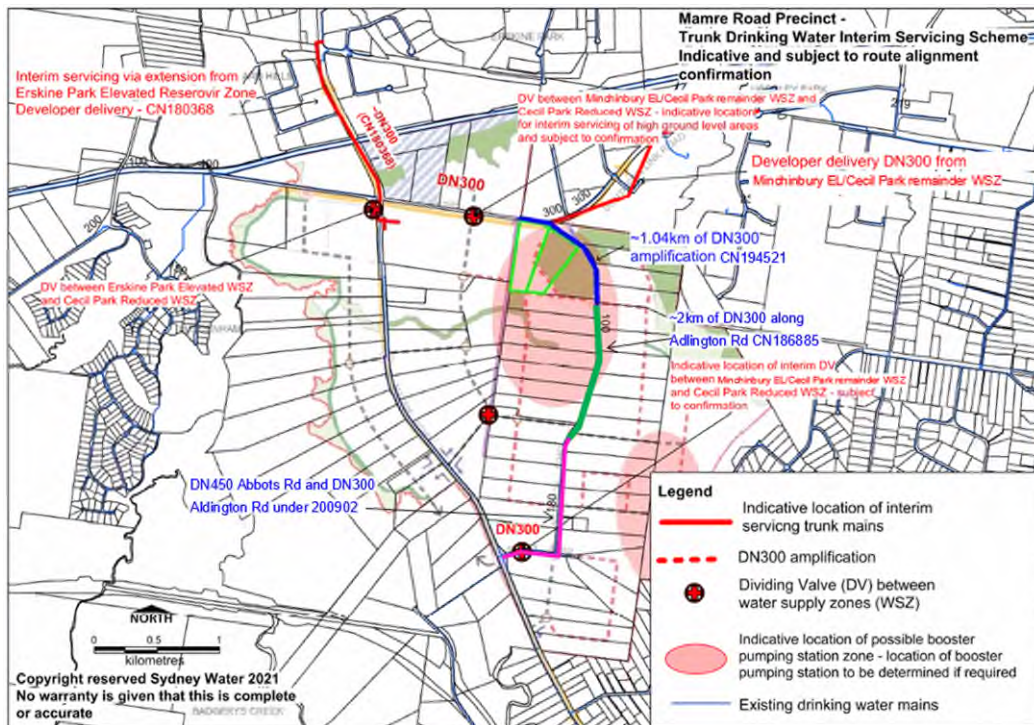


Figure 1. Immediate servicing map.

Wastewater Servicing

There are currently no wastewater services available in this area.

The proposed development is within the proposed SP1222 catchment which will transfer flows to the Upper South Creek (USC) Advanced Water Recycling Centre (AWRC) – refer to Figure 2 below.

To service this area, Sydney Water plans to deliver trunk wastewater services by 2027 to transfer flow to the USC AWRC. This is subject to funding approval.

This development is included in the ESR IOP which is expected to be commissioned by Q3 2024.

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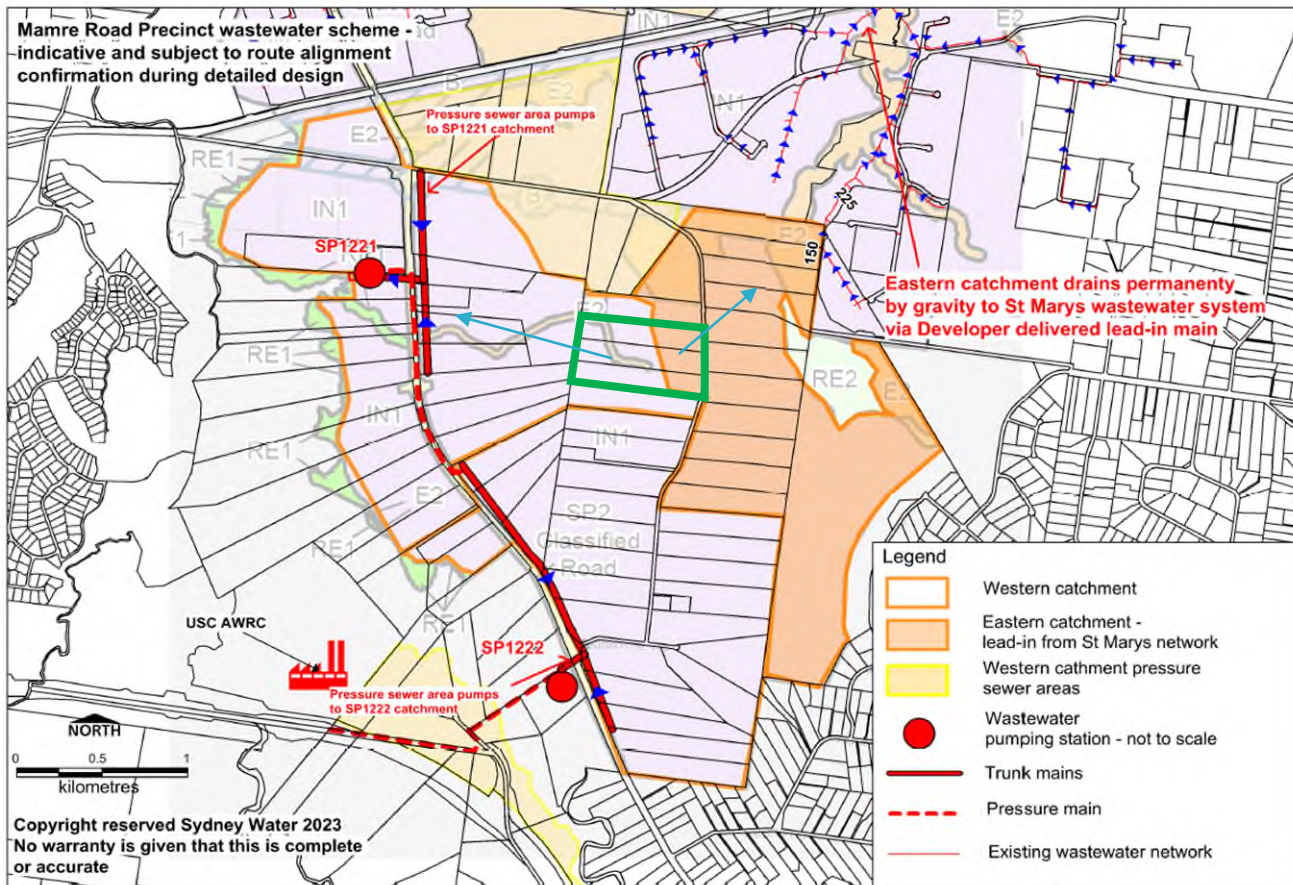


Figure 2. Mamre Road Precinct wastewater scheme map

Recycled Water Servicing

Recycled water for non-drinking water uses will be provided in the Mamre Road Precinct and will be primarily sourced from treated Stormwater and supplemented from AWRC or the Drinking Water system, as recommended by the Sub-Regional Planning Study.

Sydney Water confirms the requirement for recycled water mains and connections as per the scheme plan shown below (Figure 3) for the Mamre Road Precinct. The requirements will include that each lot must have a frontage to a recycled water main that is the right size and can be used for connection of the lot to the recycled water main.

In addition to the above, the Mamre Road recycled water reticulation network will initially be supplied by the adjacent potable water reticulation network. This arrangement will remain until the supply of treated stormwater and/or recycled wastewater from AWRC is established. Once the stormwater and recycled water supply is established, the connections between the potable water and recycled water networks will need to be decommissioned. The developer must clearly show the locations of any cross connections between the potable water network and recycled water network on the design plans which need to be reviewed by Sydney Water. The developer must also provide to Sydney Water the finished surface levels.

The indicative proposed recycled water mains for the Mamre Road Precinct are shown in Figure 3.

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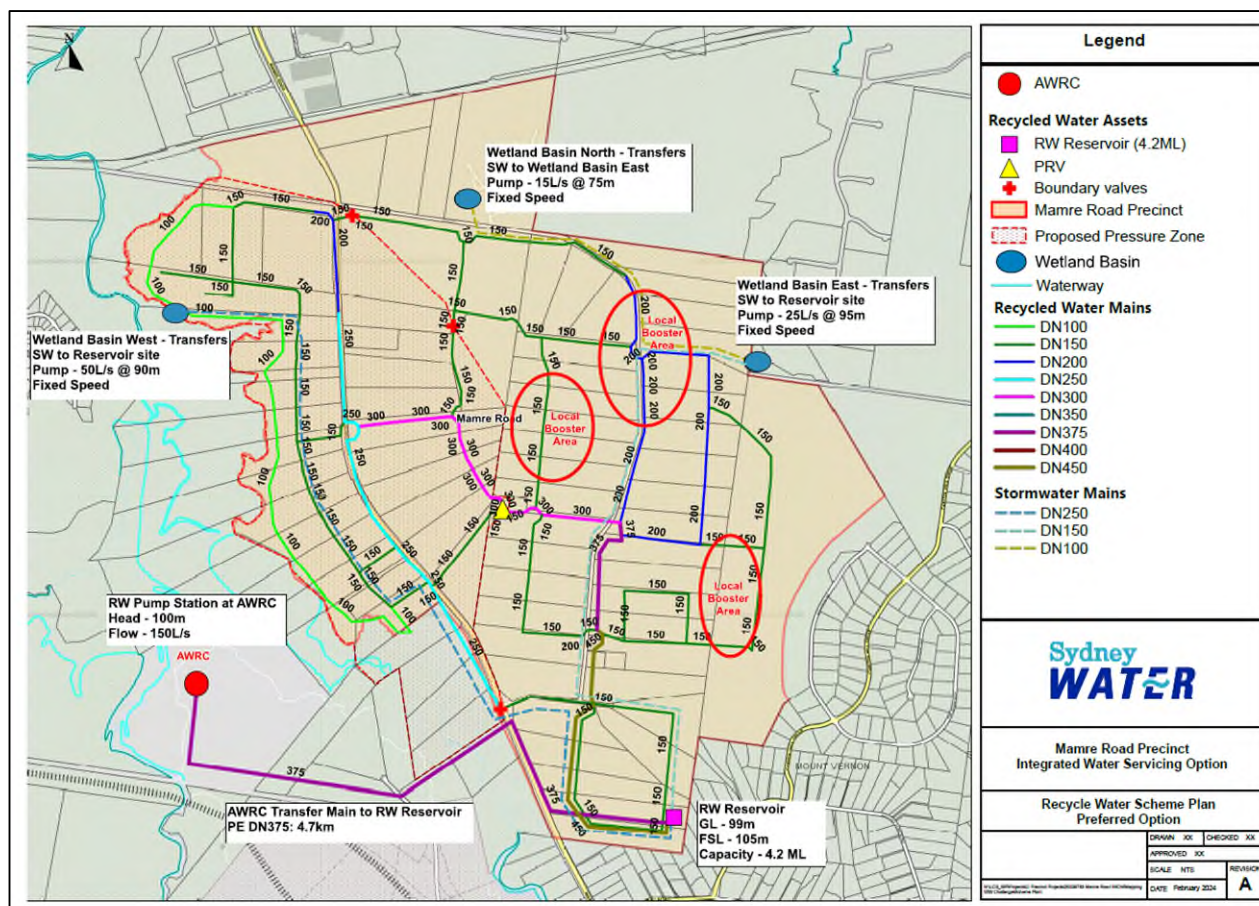


Figure 3. Indicative Proposed Recycled Water Mains

Stormwater

Sydney Water cannot endorse this application until the request for further information has been met. Attachment 1 provides full details on what information will be required.

The DPHI is advised to defer the approval of this SSD and re-refer this application to Sydney Water for review once stormwater concerns have been addressed.

Should the Department require any further information in regard to general servicing and the referral, please contact the Growth Planning Team via urbangrowth@sydneywater.com.au. Should the proponent require specific stormwater inquiries they should contact John Molteno via westernsydney@sydneywater.com.au.

Yours sincerely,

Kristine Leitch
Commercial Growth Manager

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Attachment 1 – Detailed stormwater requirements

Adherence to Waterway Health targets (DCP) and the Sydney Water Stormwater Scheme Plan

1. Sydney Water acknowledge the inclusion of temporary stormwater quality and volume management infrastructure. This infrastructure would not be required once the development is connected to the regional scheme infrastructure, at which point any temporary stormwater management infrastructure would be expected to be decommissioned/disconnected, including rainwater harvesting tanks, and the development must connect to the purple pipe recycled water reticulation system.
2. For Sydney Water to accept connection to the regional stormwater scheme the development must demonstrate that the following will be implemented:
 - The documentation must clearly demonstrate that the mandatory 15% pervious area has been provided for the ultimate state of development.
 - Adequately sized and SQIDEP approved gross pollutant traps must be installed across the development.
 - Passively irrigated street trees are to be installed on all roads within the development. The street trees act as a stormwater retention device and will assist the regional stormwater infrastructure strategy but also help achieve government canopy targets and urban cooling. Street trees are to be delivered under Council's guidance and nominally spaced at 8m centres.

Trunk Drainage

1. Location of the trunk drainage has been moved to the northern boundary of the lot which is a deviation from the published Stormwater Scheme Plan. As a consequence, a skewed culvert is required under Mamre Road to connect with the sedimentation basin 17 and to avoid space conflict with the sewage pumping station. In principle agreement to the realignment was provided in Sydney Water's letter dated 28 August 2023 also requiring a number of conditions to be met.
2. Written in principle agreement is required from TfNSW regarding the potential realignment of the channel and culverts. This has not been provided.
3. Written in principle agreement is required from Transgrid regarding the potential realignment of the channel within the Transgrid easement. This has not been provided.



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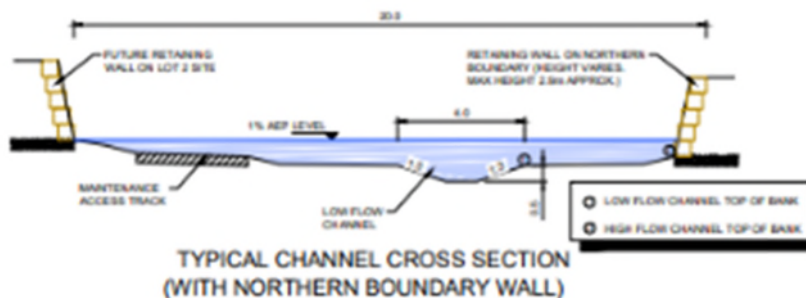
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- a. This will require co-ordination and timing between the construction of the channel and the new culvert to ensure that flows from the channel are safely conveyed to the creek west of Mamre Road. An interim solution may be required with possible consideration of utilising connection to the old culvert. This will need to be confirmed with TfNSW.
- b. The culvert will ideally be constructed with fabricated bends to improve hydraulic efficiency and provide better alignment on the western side of Mamre Road.
- c. The realignment of the channel may adversely impact the property on the western side of Mamre Road. All discharges shall be controlled to maintain the status quo until the stormwater treatment basins are built.

Channel sizing

1. The SW in principle letter of agreement references the realignment of the channel but makes no mention of a reduction in channel width from 25m as shown in the Stormwater Scheme Plan.
2. The channel as shown in the sketch below will have flows impacting the base of the retaining walls. This is considered a potential point of failure and should be designed to align with the Design Guidelines - "This system will have sufficient capacity to capture and convey flows up to or exceeding the 1% AEP"



3. "the peak 1% AEP are at a maximum of 7.4m³/s at the Mamre Road end". According to the design guideline, the channel should therefore be 25m wide.
 - a. 20m corridor 2 – 4.5 m³/s
 - b. 25m corridor 4 – 11 m³/s
 - c. 30m corridor 11 – 20 m³/s
4. Review statement in Attachment B section 29

Item No	SW Requirements:	ESR Comment:
29	Sydney Water modelling indicates the peak 1% AEP as 4.3 m ³ /s at the upstream end of the channel and 5.1 m ³ /s at the Mamre Road culverts. Unless modelling indicates higher flowrates, these values shall be used as the peak flows for channel design.	AT&L hydrologic modelling (Ref AT&L Stormwater Management Strategy Report: R009-02-20-748 confirms that 1% AEP post development flows are 4.9 m ³ /s at the upstream end of the channel and 6.5 m ³ /s at the Mamre Road culverts. For DA design purposes the more conservative pre-development 1% AEP flow rate at Mamre Road of 7.4 m ³ /s has been adopted in the design of the trunk drainage channel.

- a. Catchment boundaries to be provided overlaying existing natural catchments with design catchments in shape or CAD files to understand the gap with SW evaluation.
- b. Modelling parameters to be aligned with Design guidelines.
- c. Retaining wall at the border of the property (north) should be replaced with a batter (1 in 4) to avoid impacting the neighbouring lot.
- d. Demonstrate that low flow invert channel conveys 12 EY.
- e. Demonstrate water level at PMF, 5% AEP and 20% AEP
- f. Provide retaining wall longsection on channel longsection to show wall to invert and maintenance track relationship.
- g. Please provide the dimensioning of the different elements of the trunk drainage: access road, riparian edge, upper bank and lower bank.

3. Plot PMF level against the retaining wall.
4. Retaining walls need to be certified by structural engineer: stability and resilience to flooding up to the PMF need to be engineered.
5. Sydney Water will NOT own and maintain the retaining wall along the trunk drainage channel that is adjacent and supporting the development site and the neighbouring lot. As such should be clear of the 1% AEP trunk flows.
6. At the downstream end of the channel the retaining wall is also blocking flows from undeveloped property to the north. This shall be designed to ensure there is no adverse stormwater flow impact to this property.

Flood Impact Assessments

1. The hydrology base model should adopt the same loss model as the adopted Wianamatta South Creek model.
2. The undeveloped case 50% AEP flood model shall be mapped to confirm upstream and downstream inflow and outflow points. These points shall be used to assess if the proposed development is maintaining status quo for developed flows. Peak flows shall be extracted at these points for comparison to developed flows.
3. An impervious percentage of 90% was quoted in the modelling, this is contrary to the controls in the DCP requiring a maximum of 85% for a development site.
4. Mapping shows flood level increases on downstream properties post development. This is not acceptable and will require either written acceptance from the downstream property owner or additional attenuation of flows leaving the developed site.
5. The hydrological parameter shown in the flood report are inconsistent with those shown in Sydney Water's Design Guideline. With regard to this, please tabulate the parameters utilised in the hydrologic modelling for the site and justify any differences. This shall include full consistent catchment mapping, adopted loss rates, flowpath lengths and locations and adopted rainfall information. This can be provided as a spreadsheet of the input data for the XP-Rafts model with appropriate sketches.