

Mamre Road Data Centre Campus
SSD-92743706
706-752 Mamre Road, Kemps Creek
Water and Stormwater
Management Plan

Plan Project Management

25/11/2025

25-1282

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1. Introduction

This Water and Stormwater Management Plan (WSMP) has been prepared by AT&L on behalf of Plan Project Management in support of a State Significant Development Application ([SSD-92743706](#)) for the proposed development of the **Mamre Road Data Centre Campus** located at 706-752 and 754-786 Mamre Road, 1-23 Aldington Road, Bakers Lane and portions of Mamre Road and Aldington Road, Kemps Creek (the Site).

1.1. Site Description

The Site for the proposed development, 706-752 Mamre Road, Kemps Creek (Lot 10 DP 1280592), constitutes the main development site with areas across shared boundaries to the east and south (described below) utilised to facilitate roadworks and bulk earthworks:

- Gibb Group site to the east known as 1-22 Bakers Lane, Kemps Creek (Lot 40 DP 708347).
- GPT Group site to the south known as 754 Mamre Road, Kemps Creek (Ancillary works (roadworks and bulk earthworks) will also be undertaken on adjoining properties to the south (Lot 180 DP 1290397).

Additionally, power supply lead-in from Sydney-West Substation is proposed as part of the development, which traverses through multiple landholdings.



Figure 1: Site Area (imagery source: nearmap, 10 October 2025)

1.2. Project Description

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.

- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

1.3. Supporting Documentation

The following documentation is referred to throughout and should be read in conjunction with this report:

- a) Civil Drawings (AT&L)
- b) Civil Infrastructure (AT&L, October 2025)
- c) Earthworks Strategy Report (AT&L, October 2025)
- d) Erosion and Sediment Control Plan (AT&L, October 2025)
- e) Landscape Design package
- f) Geotechnical Investigation Report (PSM, October 2025)

2. Compliance with SEARs

This report responds to the NSW Planning Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Housing and Infrastructure (DPHI) on 30 September 2025. **Table 1** below summarises all key water and stormwater management related issues in the SEARs and how they have been addressed in this report.

Table 1: Planning Secretary's Environmental Assessment Requirements addressed in this report

Key Issue listed in the SEARs	Response
Water Management	
<i>An integrated water management strategy, including:</i>	NB: refer to Groundwater Assessment by PSM for description and assessment of groundwater conditions and potential groundwater impacts.
a detailed site water balance for the development, supported by an overview of its water demands and a breakdown of water supplies, measures to minimise water use and any water licensing requirements.	A site water balance including summary of water demand, sources of supply and measures to minimise water use are outlined in Section 4.3. The proposed development will not require any water licensing.
a description of groundwater and surface water conditions and all works/activities that may intercept, extract, use, divert or receive surface water and/or groundwater (both temporary and permanent).	A description of existing surface water conditions is presented in Section 3. A description of the interim stormwater management measures that will be incorporated into the proposed development to satisfy stormwater quality and runoff volume controls is outlined in Section 7. These measures will include temporary stormwater retention for local reuse across undeveloped portions of the site.
an assessment of potential surface and groundwater impacts (both quality and quantity) associated with the development, including potential impacts on watercourses, riparian areas, groundwater, and groundwater-dependent communities nearby in accordance with relevant EPA guidelines and the Department of Climate Change, Energy, the Environment and Water - Water Group (DCCEEW-Water) Groundwater Toolkit.	Assessment of surface water impacts (quality and quantity) against the DCP controls for stormwater quality, quantity and runoff volume is presented in Section 8.
details of any surface or groundwater mitigation, management and monitoring activities and methodologies.	Surface water mitigation and management measures are incorporated into the site stormwater management strategy, which is summarised in Section 7. Maintenance and monitoring requirements are outlined in Section 9.
a Stormwater Management Plan prepared in accordance with the Technical Guidance, the 'MUSIC modelling toolkit for Wianamatta–South Creek' and the MRP DCP, which includes:	This WSMP has been prepared in accordance with the Technical guidance, the MUSIC Modelling Toolkit and the Mamre Road Precinct DCP.

Key Issue listed in the SEARs	Response
▶ <i>details of the proposed stormwater/wastewater drainage design, including the capacity of any on-site detention system(s), on-site sewage management and measures to treat, reuse or dispose of water</i>	Details of the proposed stormwater drainage that will service the development of the Mamre Road Data Centre Campus are outlined in Section 5. The proposed capacity of on-site detention tanks to service the development are outlined in Section
▶ <i>evidence of completing a feasibility process with Sydney Water to ascertain servicing needs and resolve design requirements relating to the regional stormwater scheme</i>	A copy of the Feasibility Letter received from Sydney Water in May 2025 is included in Appendix A.
▶ <i>details of how the proposed on-site system will connect to Sydney Water's regional stormwater system, including details of any interim solution and delivery of the 20-metre-wide naturalised trunk drainage channel along the site's north-eastern boundary</i>	Details of the connection of the site to Sydney Water's planned regional stormwater infrastructure are presented in Section 7.1. Details of the planned naturalised trunk drainage channel are presented in Section 5.3 and on drawings CIV-02110 to CIV-02112 inclusive (refer to Appendix B).
▶ <i>where water and drainage infrastructure works are required that would be handed over to the local council, or other drainage or water authority (i.e. Sydney Water), provide full hydraulic details and detailed plans and specification of proposed works that have been prepared in consultation with, and comply with the relevant standards, the local council or other drainage or water authority.</i>	Design criteria for stormwater drainage infrastructure within the public domain (road reserve) are outlined in Section 5.1.
■ <i>details of provisions for supplying potable water and disposal of wastewater including any agreements entered into with relevant authorities such as Sydney Water and Penrith City Council.</i>	Refer to the Infrastructure Delivery Strategy Report prepared by AT&L (November 2025) for details of water supply and wastewater servicing strategies to service the proposed development.

3. Site Description and Pre-Development Site Conditions

3.1. Location

The Site is located in the suburb of Kemps Creek, within the Penrith Local Government Area (LGA) and approximately 13 km south-east of the Penrith CBD and 7 km north-east of the under-construction Western Sydney Airport. The total area of the Site is approximately 52 hectares.

The Site is currently characterised as rural land and comprises a single residential dwelling and some farm dams.

In June 2020, the site was rezoned *IN1 – General Industrial* under the *State Environmental Planning Policy (Western Sydney Employment Area) 2009*. The site is also located in the Mamre Road Precinct and is therefore subject to controls outlined in the *Mamre Road Precinct Development Control Plan 2021*.

3.2. Waterways and Vegetation

Based on large-scale topographic mapping (1:25,000 from NSW SIX Maps), there is one mapped hydroline that runs from south-west to north-east across the north-eastern portion of the site, refer to **Figure 2**.

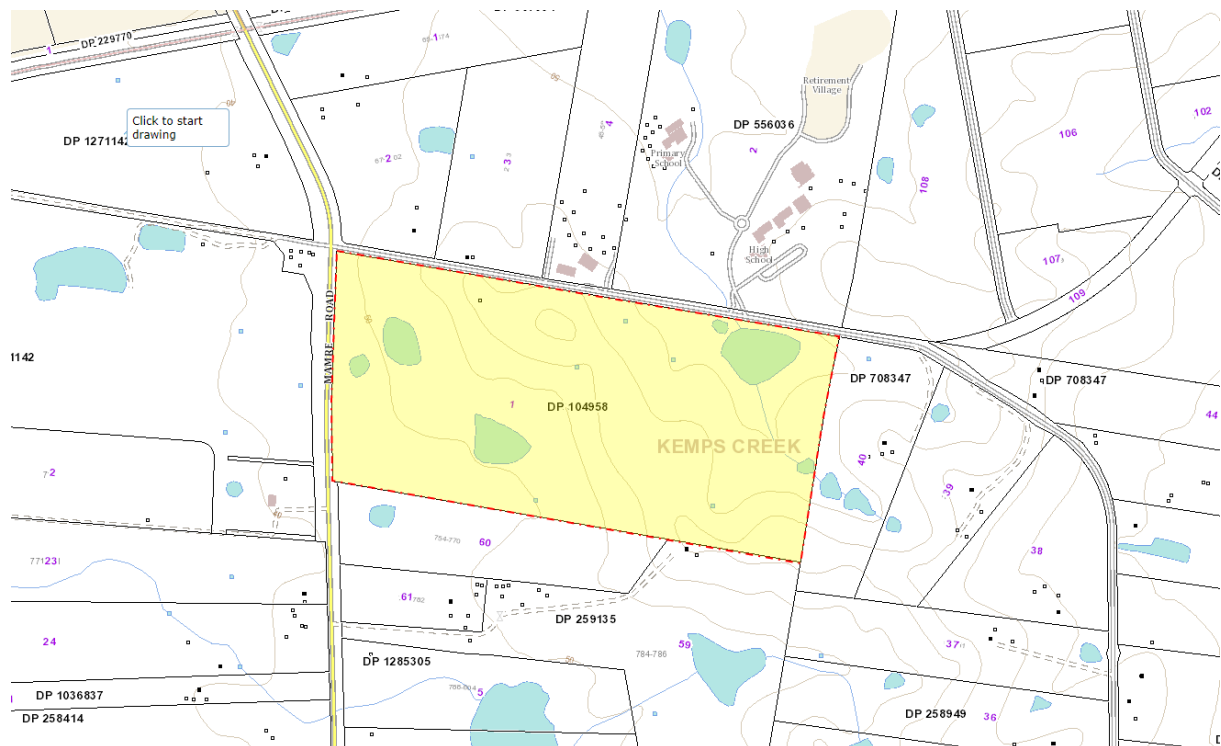


Figure 2: Topographic mapping showing drainage lines in the vicinity of the Site (Source: NSW SIX Maps)

The *Mamre Road Precinct Waterway Assessment* (CTEnvironmental, April 2020), contained in the *Mamre Road Flood, Riparian Corridor, and Integrated Water Cycle Management Strategy* (Sydney Water, October 2020) presents the extents of waterways in the Mamre Road Precinct that have been the subject of a desktop review and field assessment to confirm the presence of mapped and unmapped waterways. An extract of mapping indicating the extents of waterways in the Mamre Road Precinct is presented as **Figure 3**. This shows an unnamed tributary of South Creek within the site.

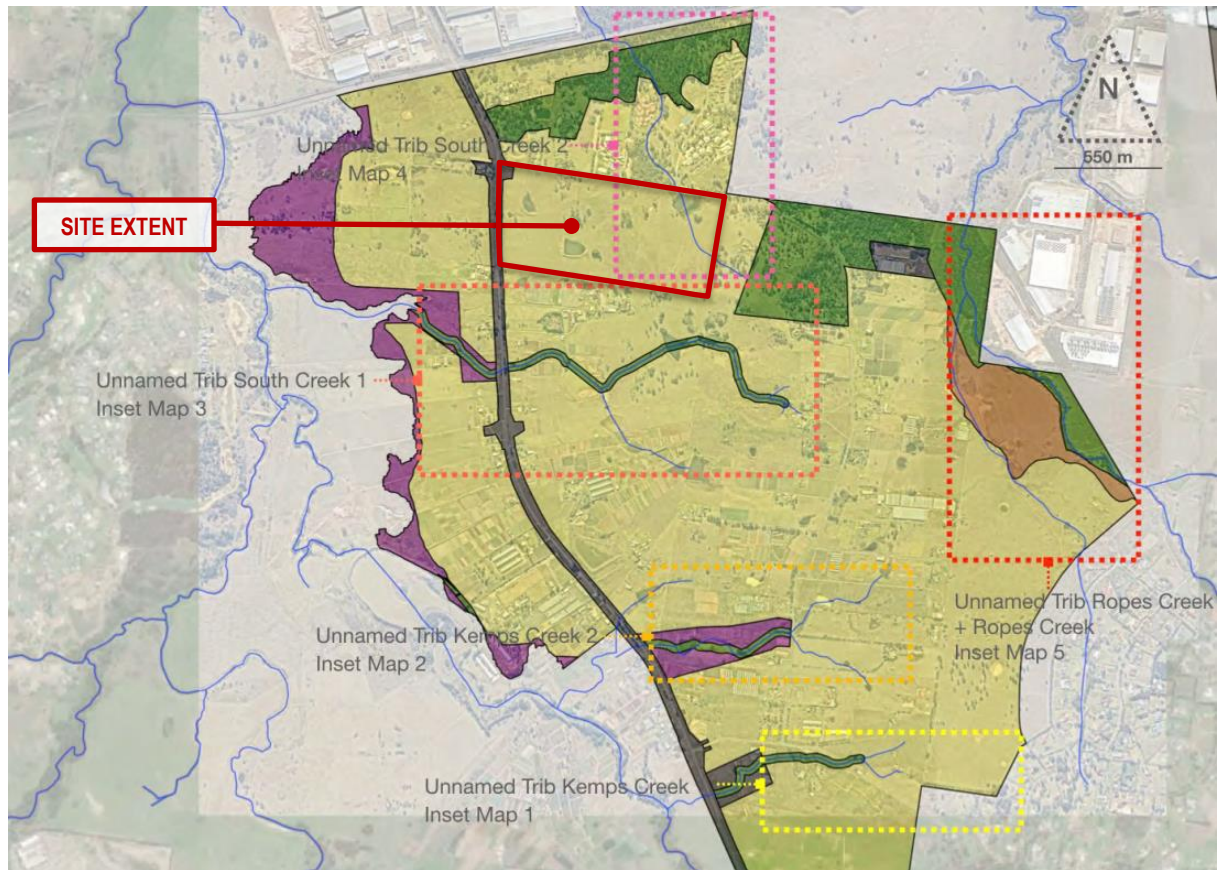


Figure 3: Extract of waterway mapping (CTEnvironmental, April 2020)

Results of the inspection of the unnamed tributary of South Creek are described in the *Mamre Road Precinct Waterway Assessment* (CTEnvironmental, April 2020), and are summarised below:

- Field inspection validated the presence of a 1st order watercourse within the site.
- The section of the watercourse within the Site has been modified to a series of farm dams with overland flow paths providing links across a broad and shallow drainage depression.
- Fringing and emerging wetland vegetation and large native trees were present around all farm dams.

The extent of the field validated top of bank and ground-truthed flow path is reproduced below as **Figure 4**. It is noted that the top of bank and the vegetated riparian buffer zone is limited to the section of watercourse downstream (north) of the Site.

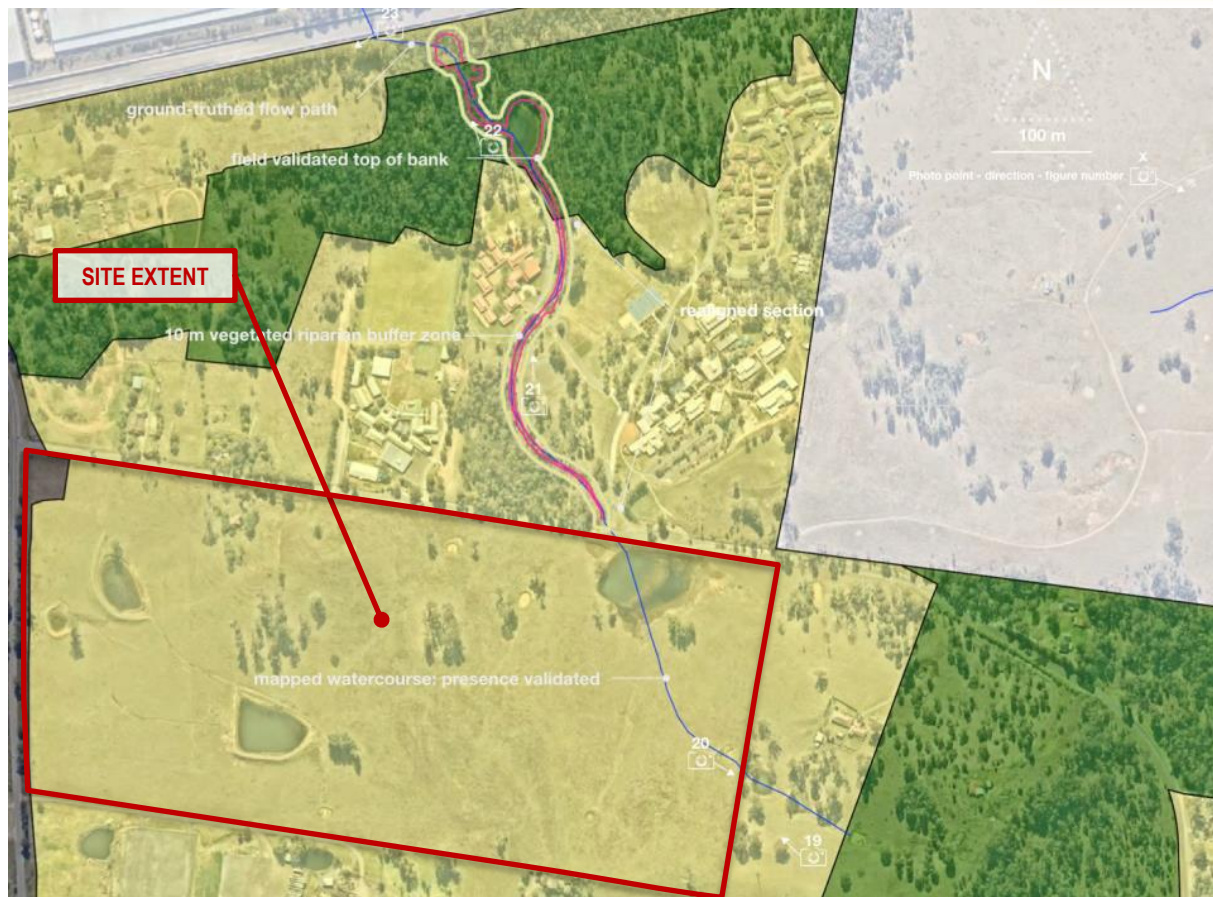


Figure 4: Field validated flow paths and watercourses within and downstream of the site

3.3. Existing Geology

Based on a preliminary geotechnical investigation undertaken by PSM (October 2025), it is understood that the Site is underlain by Bringelly Shale of the Wianamatta group which consists of shale, carbonaceous claystone, claystone, laminate, fine to medium grained lithic sandstone, rare coal and tuff.

A summary of the inferred subsurface conditions based on boreholes analysis undertaken by PSM is as follows:

- Topsoil (at surface) – sandy clay to clayey sand, low to medium plasticity
- Natural soil (up to 0.2m deep) – clay to sandy clay, low to medium plasticity
- Bedrock A (between 0.6m and 6.6m deep) – shale/sandstone, extremely to moderately weathered, very low to low strength.
- Bedrock B (between 3.1m and 10m deep) – shale/sandstone, moderately weathered, medium to high strength.

3.3.1. Salinity

Based on site investigations undertaken by PSM, consisting of six samples across the Site, soils were found to be either “non-saline” (four out of six samples) or “slightly saline” (two out of six samples).

3.3.2. Sodicty

The Exchangeable Sodium Percentages (ESPs) calculated from tests undertaken by PSM ranged from <0.1% to 18.8%, which indicates that the natural soil on the site is classified as “non-sodic” (<5% ESP) to “highly sodic” (>15% ESP).

3.4. Existing Topography and Catchments

The Site in its existing condition is characterised by undulating topography. A ridgeline runs across the site, generally aligned from south-east to north-west. The ground slope either side of the ridgeline is generally between 6% and 15%. Elsewhere across the site the ground slope is generally 2-3%. A slope analysis of the existing topography is presented in **Figure 5**.

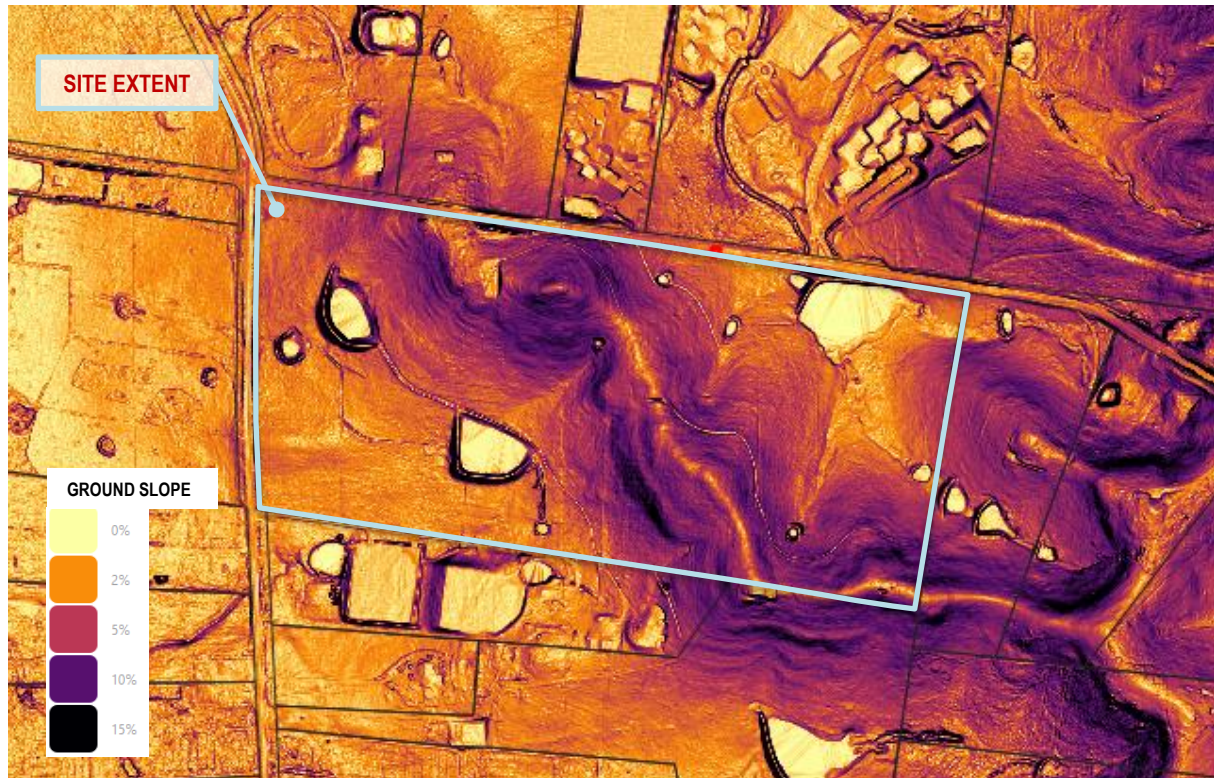


Figure 5: Slope analysis of existing site topography (based on NSW Government LiDAR data, 2019)

The highest ground elevation within the Site is approximately 85 mAHD adjacent to the south-eastern corner. The lowest ground elevation is approximately 42 mAHD at the south-western corner adjacent to Mamre Road. The lowest point adjacent to Bakers Lane is approximately 54 mAHD.

Most of the site in its existing condition is pervious, other than a single residential building and some access driveways.

Delineation of the internal drainage catchments and external catchments that drain through the Site is presented in **Figure 6**.



Figure 6: Catchment extents under existing conditions

A summary of the internal catchments under existing conditions is summarised in **Table 2**.

Table 2: Existing site stormwater discharge

Catchment ID	Approximate area (ha)	Discharges to:
CATCHMENT 1	19.938	Northern boundary culvert under Bakers Lane
CATCHMENT 2	2.873	North-western boundary culvert under Mamre Road
CATCHMENT 3	8.385	Western boundary culvert under Mamre Road
CATCHMENT 4	19.472	South-western boundary through Lot 61 DP259135
CATCHMENT 5	0.196	Southern Boundary through Lot 5 DP259135
CATCHMENT 6	1.388	Northern boundary culvert under Bakers Lane
CATCHMENT EXT-A	8.370	Catchment 6 / Northern boundary
CATCHMENT EXT-B	8.761	Catchment 1 / Eastern Boundary

The external catchment to the east of the site is approximately 17.1 hectares and drains towards the north-eastern corner of the site, adjacent to Bakers Lane. The majority of this catchment is contained within the proposed Gibb Group Development at 1-51 Aldington Road ([SSD-74784709](#)).

There is currently no formal trunk stormwater infrastructure within the site. Visual inspection on site indicates that there are no formal creeks or waterways, more so localised depressions occurring naturally in the undulating nature of the site.

3.5. Trunk Drainage Paths

The *Mamre Road Precinct DCP* includes indicative locations of trunk drainage infrastructure across the precinct, refer to **Figure 7**. The indicative trunk drainage line within the site is located at the northern boundary of proposed Lot 1 and extends towards the east along the northern boundary of 21 Aldington Road within the Gibb Group Development. The nature and extent of trunk stormwater drainage at the interface between the two development sites will be subject to coordination at the detailed design phase.

The geometry of the channel will be subject to ongoing coordination with Sydney Water, the Gibb Group development and WSP design for the future Southern Link Road.

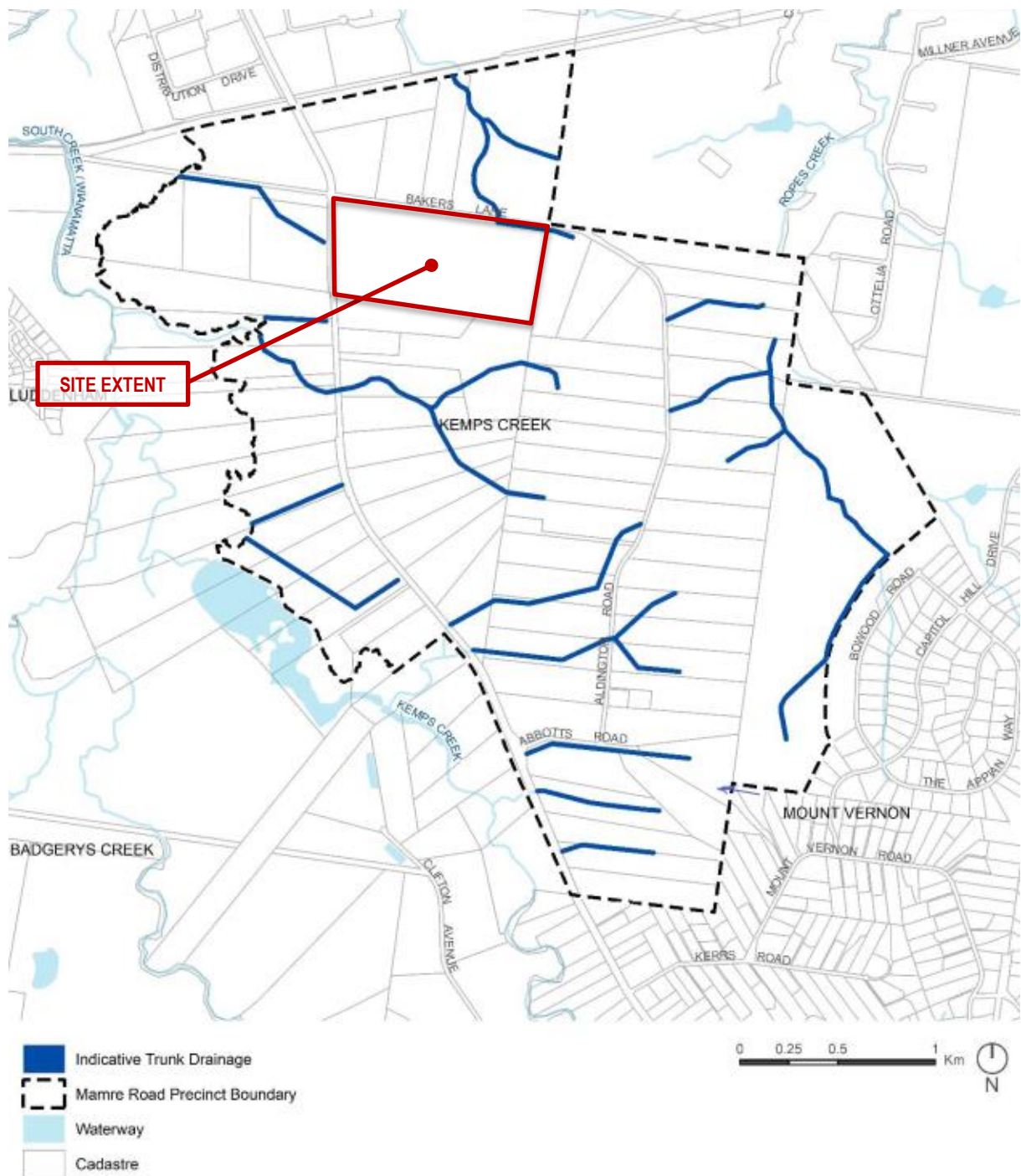


Figure 7: Trunk Drainage Infrastructure identified in the Mamre Road Precinct DCP

4. Proposed Development

4.1. Scope of SSDA

The site is proposed for development under a State Significant Development Application (SSDA) as a data centre campus comprising:

- Approximately 26 shells across four-storeys data centre buildings (4x four shells and 2x five shells), including six technical office buildings, plus a campus office.
- Incoming and internal electrical substations and associated infrastructure
- Site preparation, including earthworks, stormwater, sewer, roads, and associated infrastructure.

4.2. Post-Development Catchment Extents

A post-development catchment plan based on the proposed site development and site grading is presented in **Figure 8**.

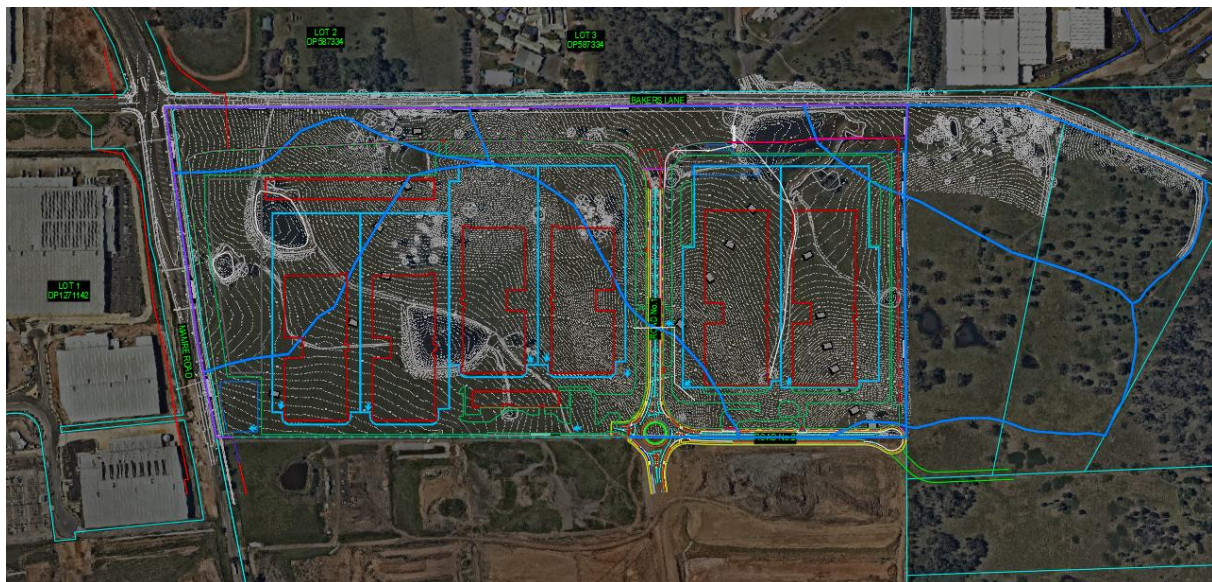


Figure 8: Catchment extents under proposed conditions

Under the proposed development conditions, the site is proposed to drain as follows:

- Road 1 and Road 2 will drain towards the eastern point of discharge at Bakers Lane.
- Parcels 5 and 6 (east of Road 1) will drain towards a stormwater line that will run under Road 1 and into the western part of the Data Centre Campus. These two parcels will discharge into an OSD tank situated to the east of the proposed CASH Building (OSD EAST).
- Parcels 3 and 4 and part of the Campus ring road will also discharge to the OSD East tank.
- The outlet from the OSD EAST tank will drain in a westerly direction towards the ultimate point of discharge at the south-western corner of the site.
- Parcels 1 and 2, as well as the Campus Substation and Statcom, will discharge towards the OSD West tank, to be located at the south-western corner of the site.

Based on the proposed site grading, there will be two (2) main points of surface water discharge from the site:

- Across the northern boundary of the site adjacent to proposed Lot 1 towards the existing culvert at Bakers Lane.
- At the south-western corner of the site towards the verge on the eastern side of Mamre Road.

4.3. Water Sources and Demands

4.3.1. Water Requirements

The site water requirements can be generally categorised into three:

1. Domestic water supply to meet demands typical of IN1 zoned land, including:
 - ▶ Amenities within the COSH Building (primarily kitchens and bathrooms).
 - ▶ Landscape irrigation.
2. Mechanical water supply for cooling towers within the data centre parcels.
3. Fire water supply to sprinklers and hydrants.

The water demand for cooling the data halls is entirely governed by the type of heat rejection technology adopted, which in turn is largely influenced by the availability of a secure water supply. A “dry” data centre requires no water for heat rejection, whereas a “wet” system requires a significant continuous water supply and on-site water storage to maintain operation in the event of a loss of water supply.

A summary of the general water requirements for various types of heat rejection are summarised in **Table 3**.

Table 3: Water requirements for various heat rejection options

Type	Design Philosophy	Water Demand	Heat Rejection	Notes
Dry	Zero water available for heat rejection use in any circumstances	Facility operations supply only (amenities, landscape irrigation)	Air cooled chillers	No requirement for critical water storage or pumping infrastructure
Minimum Water Use at Extreme Ambient Conditions	Minimal water use. Water is only used on extreme temperature days or hot days when power failure occurs.	Typical estimated water use for each DC building: ■ 10.3 ML during peak month (January) ■ 22.4 ML average use over a year	Air cooled chillers	Sizing of water storage, pipework and pumping based on average rate of water flow to each piece of equipment.
Wet	Utilise recycled water available to site. Heat rejection systems and electrical systems designed to operate with recycled water available and maintainable critical water storage, pumping and distribution.	Typical estimated water use for each DC building: ■ 253.1 ML during peak month (January) ■ 2,261 ML average use over a year	High density cooling (evaporative or water-cooled chillers)	Will only be utilised if recycled water is available to site. Reduces energy use and GHG emissions. Increased density and more effective land/site utilisation. 24 hours peak water storage required.

Several cooling technologies have been investigated in the design development for the Mamre Road Data Centre Campus, resulting in two likely rooftop solutions. Air-cooled chillers (ACCs) are currently proposed for this application to address the most extreme condition of insufficient secure supply of industrial water.

An alternative scheme for Water Cooled Chillers (WCCs) Coupled with Hybrid Dry Coolers (HDCs) have been considered to leverage higher efficiency equipment capable of using ambient weather to provide indirect free cooling. This alternative scheme (not proposed under this application) would be subject to final agreement of outcomes with stakeholders and confirmation of the availability of a secure water supply.

Further details of the proposed and potential alternative cooling technologies are documented in the *Mamre Road Data Centre Campus; Plant and Equipment Systems Report* (Aurecon, December 2025)

4.3.2. Water Sources

The primary source of water to the Mamre Road Data Centre Campus will be Sydney Water's potable water reticulation network. Details of existing and proposed infrastructure that will be required to service the estate is presented in the Civil Infrastructure Report (AT&L, October 2025).

A "third-pipe" reticulated recycled water network will supply non-potable water throughout the Mamre Road Precinct. Non-potable water will be supplied from two sources:

- Stormwater harvested within precinct-wide wetlands / ponds, to be delivered and operated by Sydney Water as part of a regional stormwater management scheme.
- Recycled water from the planned Upper South Creek Advanced Recycled Water Centre.

4.3.3. Water Use Minimisation

Sydney Water provides a wide range of advice and guidance relating to water use minimisation and water efficiency. The following water use minimisation principles will apply to the Mamre Road Data Centre Campus:

- **Avoid using water** where possible, such as sweeping hard surfaces instead of washing them.
- **Reduce water use** by installing water-efficient appliances and equipment (e.g., toilets, urinals, shower heads).
- **Reuse water** from manufacturing or cooling processes to toilet flushing, landscape irrigation and dust suppression.
- **Implement best-practice cooling technologies**, such as direct-to-chip cooling or immersion cooling.

5. Stormwater Drainage

5.1. Stormwater Drainage Design Criteria

Design criteria and requirements for the proposed site stormwater management are outlined in the following documents:

- AS 3500.3 – Plumbing and drainage – Stormwater drainage
- Commonwealth of Australia (Geoscience Australia), *Australian Rainfall and Runoff: A guide to flood estimation*, 2019.
- NSW Department of Planning, Industry and Environment (DPIE), *Mamre Road Precinct Development Control Plan 2021*.
- NSW Department of Planning, Industry and Environment (DPIE), *MUSIC Modelling Toolkit – Wianamatta*, 2 August 2021.
- Penrith City Council, *Design Guidelines for Engineering Works for Subdivisions and Developments*, as amended 20 November 2013.
- Penrith City Council, *Water Sensitive Urban Design (WSUD) Policy*, December 2013.
- Penrith City Council, *WSUD Technical Guidelines*, Version 4 – October 2020.

An extract of the prescriptive controls is summarised in **Table 4**.

Table 4: General stormwater drainage design criteria

Stormwater Component	Design Criteria
Hydrology	■ Time of concentration values 5 minutes (minimum) and 20 minutes (maximum). ■ Design Storm events: 50% AEP, 20% AEP, 10% AEP, 5% AEP, 2% AEP and 1% AEP.
Minor and Major System	■ Minor system: 5% AEP conveyed by way of pit and pipe drainage. ■ Major system: 1% AEP conveyed by way of pit and pipe drainage and overland flow.
Pipes	■ Minimum pipe diameter size on roads: 375mm ■ Minimum pipe grade: 1% (desirable), 0.5% (absolute minimum) ■ Minimum pipe cover: 450mm (grassed area), 600mm (under carriageway) ■ Where minimum cover cannot be achieved due to physical constraints the pipe class shall be suitably increased. ■ All pipes in trafficable areas will be Reinforced Concrete Pipes (RCP) or Fibre Reinforced Cement (FRC) equivalent. ■ Pipes discharging to an overland flow path shall adopt a minimum tailwater level equivalent to respective overland flow level. ■ A hydraulic grade line HGL design method shall be adopted for all road pipe drainage design.
Pits	■ Minimum pit freeboard: 150mm from HGL to surface level in the minor event. ■ Where trapped low points are unavoidable and potential for flooding private property is a concern, an overland flow path capable of carrying the total 1% AEP storm event has been provided. Alternatively, the pipe and inlet system has been upgraded to accommodate the 1% AEP storm event. ■ Maximum pit spacing: 75 metre intervals. ■ Blockage factors of 20% and 50% shall be adopted for on-grade and sag pits respectively.

Stormwater Component	Design Criteria
Gutter flow widths	- Maximum flow width: 2.5m - Bypass from any pit on grade shall not exceed 15% of the total flow at the pit.
Overland flow paths	Velocity x depth product shall not exceed 0.4 m²/s for all storms up to and including the 1% AEP event.

5.2. Proposed Site Stormwater Drainage

The proposed stormwater drainage network within the Mamre Road Data Centre Campus has been designed to safely convey major and minor flows prior to discharging to neighbouring properties to the north of Bakers Lane and west of Mamre Road. The following criteria have been adopted for the proposed drainage system:

- Estate road stormwater drainage:
 - ▶ Major system (pit and pipe network, overland flow paths and channels): 1% AEP
 - ▶ Minor system (pit and pipe network): minimum 5% AEP and increased where required to address major system design requirements.
- Data Centre Campus stormwater drainage:
 - ▶ Major and minor system drainage: capture and convey peak flows up to and including the 1% AEP design storm event to ensure the safe operation of the Campus and to mitigate risks associated with local flooding within the site.

5.3. Trunk Drainage Infrastructure

The *Mamre Road Precinct Stormwater Scheme Plan* (May 2025) includes locations of trunk drainage infrastructure across the precinct, refer to **Figure 9**. The trunk drainage line within the site is located at the northern boundary of proposed Lot 1 and extends towards the east along the northern boundary of 21 Aldington Road within the Gibb Group Development. The nature and extent of trunk stormwater drainage at the interface between the two development sites will be subject to coordination at the detailed design phase.

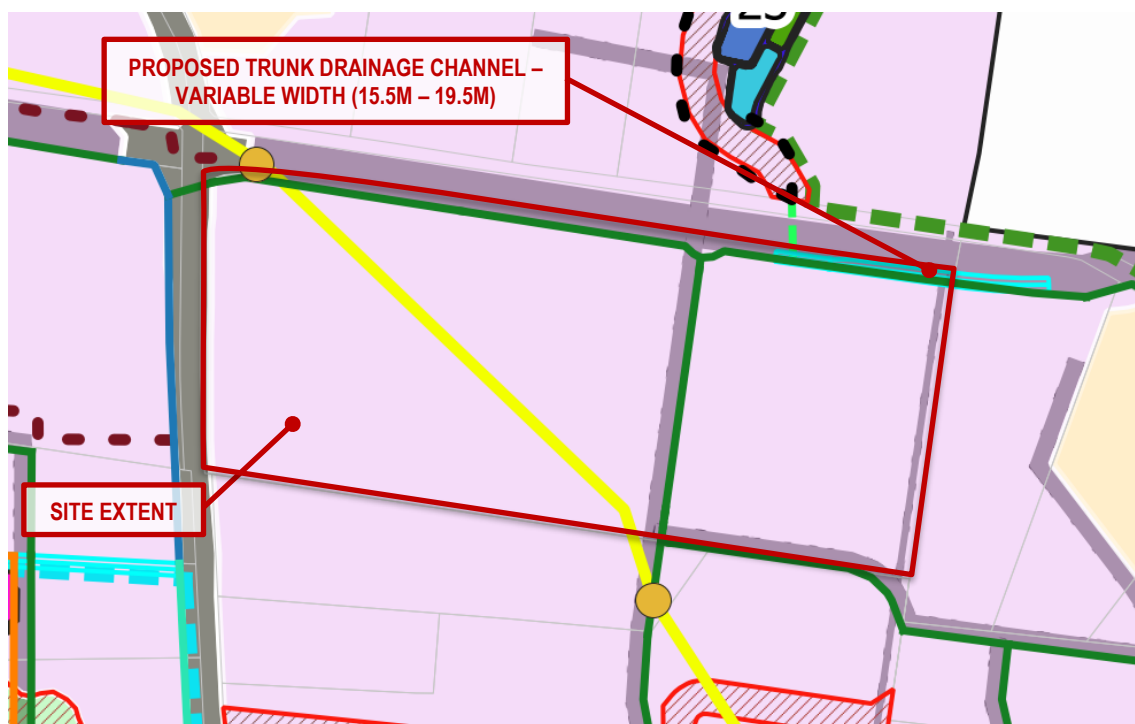


Figure 9: Trunk Drainage Infrastructure identified in the Mamre Road Precinct Integrated Stormwater Scheme Plan (Sydney Water, May 2025)

Concept design drawings of the proposed trunk drainage channel are included in **Appendix B**. Preliminary channel design parameters, peak flows and indicative flow depths from DRAINS model outputs are presented in **Table 5**.

Table 5: Preliminary trunk drainage channel design parameters

Channel east	
Inflow characteristics	Flow from proposed Aldington Road, which will capture and convey the upstream catchment east of the site
Low flow channel	To contain peak flow up to the 50% AEP design event
High flow channel	To contain peak flow up to the 1% AEP design event, with sufficient freeboard (minimum 0.5m) to surrounding development to satisfy development controls
50% AEP peak flow	0.676 m ³ /s
1% AEP peak flow	3.16 m ³ /s

Further design and coordination with the project landscape designer and ecologist will be undertaken to develop other design parameters for the proposed trunk drainage channel, including:

- Channel planform (including low flow channel sinuosity and meander)
- Depth variability (in the form of pools and riffles)
- Channel bed grade control structures (e.g., rock chutes or ramps)
- Bank stabilisation
- Ecological values (e.g., habitat structures, vegetation types and variety)
- Social values (e.g., amenity, community connection)

6. Stormwater Targets

The Mamre Road Precinct DCP establishes the construction and operational phase stormwater quality and quantity (flow) targets for the Site. This Water and Stormwater Management Plan addresses operational phase targets only. Construction phase targets are addressed in an Erosion and Sediment Control Plan for the Site.

For the operational phase targets there are two options available for stormwater quality and two options available for stormwater flow.

Stormwater quality targets for Option 1 (annual load reduction) and Option 2 (allowable loads) are summarised in **Table 6**.

Table 6: Operational phase stormwater quality targets – Options 1 and 2

Parameter	Option 1 Target (reduction in mean annual load from unmitigated development)	Option 2 Target (allowable mean annual load from development)
Gross pollutants (anthropogenic litter >5mm and coarse sediment >1mm)	90%	< 16 kg/ha/yr
Total suspended solids (TSS)	90%	< 80 kg/ha/yr
Total phosphorus (TP)	80%	< 0.3 kg/ha/yr
Total nitrogen (TN)	65%	< 3.5 kg/ha/yr

Stormwater quantity (flow) targets for Option 1 (mean annual runoff volume) and Option 2 (flow percentiles) are summarised in **Table 7**.

Table 7: Operational phase stormwater quantity (flow) targets – Options 1 and 2

Parameter	Option 1 Target (MARV)	Option 2 Target (flow percentiles)
Mean annual runoff volume (MARV)	≤ 2 ML/ha/yr at the point of discharge to the local waterway	n/a
95%ile flow (L/ha/day at the point of discharge to the local waterway)	n/a	3000 – 15000
90%ile flow (L/ha/day at the point of discharge to the local waterway)	1000 – 5000	1000 – 5000
75%ile flow (L/ha/day at the point of discharge to the local waterway)	n/a	100 – 1000
50%ile flow (L/ha/day at the point of discharge to the local waterway)	5 – 100	5 – 100
10%ile flow (L/ha/day at the point of discharge to the local waterway)	0	n/a
Cease to flow	n/a	Between 10% to 30% of the time

7. Water Sensitive Urban Design Strategy

This Water Sensitive Urban Design (WSUD) Strategy for SSD-30628110 incorporates a series of stormwater management measures to address stormwater quality, quantity (peak flow attenuation) and flow volume. This Strategy should be read in conjunction with the following documents:

- Sydney Water, [Stormwater Management Framework for Aerotropolis and Mamre Road Precincts](#), December 2022.
- Sydney Water, Mamre Road Precinct Stormwater Scheme Plan (May 2025)

7.1. Mamre Road Precinct Stormwater Scheme Plan

The Mamre Road Precinct Stormwater Scheme Plan (SSP) presents indicative regional trunk drainage infrastructure proposed by Sydney Water in the Mamre Road Precinct (refer to **Figure 9**). The SSP was developed in line with NSW Government planning requirements and includes measures that would ensure development in the precinct complies with the waterway health targets outlined in the *Mamre Road Precinct DCP*.

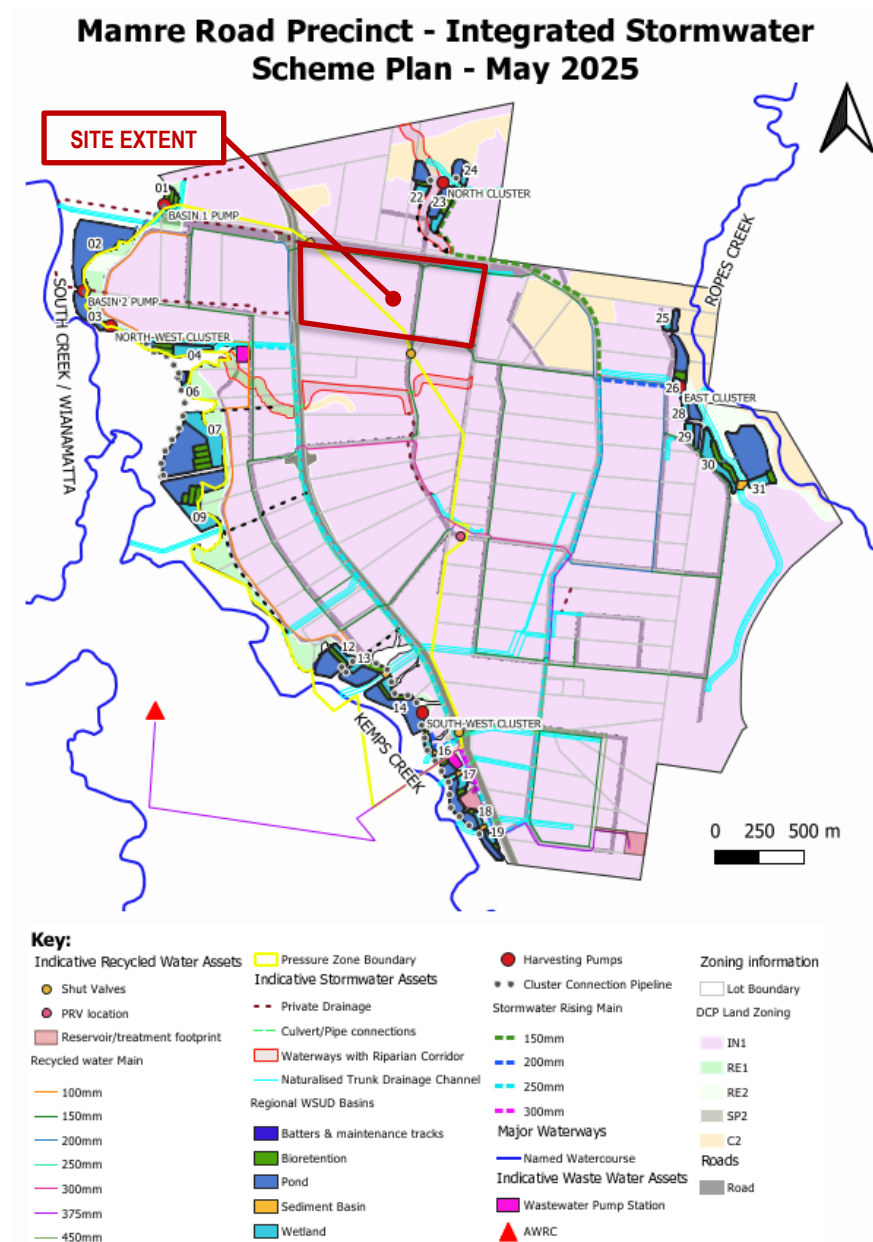


Figure 10: Mamre Road Precinct Stormwater Scheme Plan (Sydney Water, May 2025)

The Mamre Road Precinct SSP incorporates the following components:

- Naturalised channels and rehabilitated streams for stormwater flow conveyance
- Wetlands and storage ponds for harvesting and treatment of stormwater
- Gross pollutant traps (GPTs) to protect the treatment infrastructure from major litter and other pollutant loads
- A recycled water distribution network that will include gravity and pressure mains as well as pumps, a treatment plant and a reservoir for reticulation.

The Mamre Road Precinct SSP shows a naturalised channel along a portion of the northern boundary of the Site, nominally within the extent of proposed Parcels E and F. The proposed channel would have a variable width of between 15.5 metres and 19.5 metres and would drain from east to west towards the low point at Bakers Lane and ultimately through the unnamed tributary of South Creek. As outlined in **Section 5.3**, further design coordination will be required with Sydney Water and the developer of the adjacent Gibb Group Site to establish channel design parameters. In particular, hydrological and hydraulic modelling of channel flow will need to be undertaken to simulate post-development conditions for a range of design storm events, noting the proposed final landform and catchment delineation will be significantly different to the existing landform.

Ultimately, the Site is planned to discharge to stormwater management measures presented on the SSP, namely:

- Wetland / Storage Pond 23 to the north of the Site
- Wetland / Storage Pond 04 to the west of the Site

Due to the complexity of the delivery of wetland / storage pond 23 on land that is currently occupied by the Emmaus Catholic College and Trinity Catholic Primary School, discussions are ongoing with Sydney Water to amend the SSP to allow the entirety of the Mamre Road Data Centre Campus to drain towards Mamre Road and ultimately be managed by Wetland / Bio-Retention Basin 04 (located on the Yiribana Logistics Estate West site) and Storage Pond 3 (located on The Yards site). The ultimate stormwater management strategy that will service the Mamre Road Data Centre Campus has been developed on the assumption that the SSP will be amended to drain the entirety of the site towards Mamre Road.

7.2. Strategy Overview

The water management strategy that will service the Mamre Road Data Centre Campus will be staged in line with the proposed development staging. An outline of the proposed stormwater management measures is presented in **Table 8**.

- Phases 1 to 4 inclusive will incorporate a series of interim stormwater management measures in advance of the delivery of and connection to Sydney Water's planned regional stormwater infrastructure as described in **Section 7.1**. The stormwater management measures that are described herein refer to those that will service development of the site up to and including Phase 4.
- Development of the site beyond Phase 4 will rely on the delivery of and connection to Sydney Water's regional stormwater infrastructure.

Table 8: Summary of progressive measures to address stormwater quality and runoff volume targets

Development Phase	GPT	OSD	Stormwater retention for irrigation	Regional Stormwater Scheme Infrastructure
Phase 1 - Parcel A - Campus Electrical Substation - Statcom - Central Operation and Support Hub (COSH) Building + carpark - Secured site entry of roundabout at Road 1 / Road 2 - Bulk earthworks across Parcels A, B, C and D	Atlan Vortceptor (or similar SQIDEP verified product) adjacent to south-western point of discharge at Mamre Road	Western OSD Tank Eastern OSD Tank	Interim arrangement of OSD tanks to incorporate at least 6,000 m ³ of stormwater retention volume. Low flow bypass from interim stormwater retention = 260 l/s to temporary irrigation area on eastern portion of the site.	No regional stormwater infrastructure required to service development up to Phase 4.
Phase 2 Parcel B	As above	As above		
Phase 3 Parcel C	As above	As above		
Phase 4 Parcel D	As above	As above		
Phase 5 - Parcel E - Road 2 to temporary cul-de-sac adjacent to eastern boundary of the site	As above + Atlan Vortceptor (or similar SQIDEP verified product) adjacent to northern point of discharge at future Southern Link Road	As above	Interim stormwater retention and irrigation to be removed upon connection to Sydney Water regional stormwater infrastructure.	Ultimate connection to Wetland / Bio-retention Basin 4 (located within Yiribana West) and Pond 3 (located west of The Yards).
Phase 6 - Parcel F - Road 1 to temporary cul-de-sac near intersection of future Southern Link Road	As above	As above		

7.3. Proposed Stormwater Management Measures

To satisfy stormwater quality, quantity and runoff volume controls up to Phase 4 of the development, a series of quantity and quality control measures are proposed to be adopted within the site. A general description of the proposed stormwater treatment train components is presented in the following sections. A Stormwater Management Plan showing the proposed stormwater management measures is included in **Appendix C**.

7.3.1. Gross pollutant traps

Consistent with the requirements of Sydney Water's *Stormwater Scheme Infrastructure Design Guideline* (DRAFT, August 2024), the proposed treatment train will consist of gross pollutant traps (GPTs) just upstream of the point of discharge from the Mamre Road Data Centre Campus to the estate-wide stormwater drainage system. GPTs will capture litter, debris and coarse sediment, as well as some oils and greases.

A high-flow bypass for the GPTs would nominally be equivalent to the 4 EY (3-month ARI) peak flow rate discharging to the GPT. Design flows for the GPTs and their final configuration will be confirmed at the detailed design phase.

7.3.2. On-site stormwater detention

Surface water runoff from the Mamre Road Data Centre Campus will be collected via a campus-wide stormwater drainage network, which will connect to on-site stormwater detention (OSD) tanks. For the post-development scenario, the design intent is to demonstrate a solution where post-development peak flow rates at the points of discharge at Bakers Lane and Mamre Road are no greater than pre-development peak flow rates.

A summary of the key OSD tank parameters is presented in **Table 9**.

Table 9: Key OSD tank parameters

OSD Tank	Contributing Catchment Area (ha)	Peak 1% AEP Inflow (m ³ /s) ^(A)	Peak 1% AEP Outflow (m ³ /s) ^(A)	Peak 1% AEP Storage Volume (m ³)
OSD East	27.2	13.8	1.3	14,600
OSD West	15.4	8.6	1.5	7,150

(A) Based on results of high-level DRAINS modelling, subject to review and refinement at detailed design once on-lot drainage layout is confirmed.

7.3.3. Interim stormwater retention for local irrigation

To satisfy the stormwater runoff volume controls in advance of connection to regional stormwater scheme infrastructure, interim stormwater retention within the site is proposed to capture and store surface water runoff for local irrigation. It is proposed that one or both of the OSD tanks on the western portion of the site be configured in a manner that allows part of their total volume to be utilised for retention.

General parameters for the proposed stormwater retention and irrigation are summarised in **Table 10**. This arrangement would support development up to and including Phase 4, being the full development of the western portion of the site between Mamre Road and proposed Road 1. As outlined in **Section 7.2**, further development of the Mamre Road Data Centre Campus (Phase 5 and beyond) would rely on connection to Sydney Water's regional stormwater scheme infrastructure.

Table 10: Adopted stormwater retention and irrigation parameters

Parameter	Interim Stormwater Retention Tank
Location:	OSD Tank West
Inflow from:	Parcels A, B, C and D Remainder of western portion of the site, including COSH and Statcom Buildings and Substation
Outflow to:	Point of discharge at south-western corner of the site to Mamre Road
Surface area (m2)	3,600
Permanent pool volume (m3)	6,000
Irrigation area (ha)	12
Annual irrigation demand ^[1] (kL/yr)	72,000 (assuming application 12 hectares of undeveloped land across Parcels E and F)

[1] applied as Monthly Pattern defined in the MUSIC Modelling Toolkit – Wianamatta

The proposed stormwater retention and irrigation arrangement is intended to be an interim measure and would ultimately be superseded by Sydney Water's regional stormwater infrastructure.

Interim irrigation systems would need to incorporate a series of measures to demonstrate ongoing compliance with the stormwater flow controls and to mitigate potential risks associated with stormwater harvesting and reuse. The design and operation of these systems will comply with the principles and guidance outlined in the [Australian Guidelines for Water Recycling: Managing Health and Environmental Risks \(Phase 2\); Stormwater harvesting and reuse](#) (Australian Government, 2009). As a minimum it is expected that the system will incorporate the following:

- A pump system to transfer water from the pond to the irrigation area, and potentially a small holding tank to store water upstream of irrigation infrastructure
- Stormwater treatment, including filtration and UV disinfection
- A multi-channel irrigation controller including inputs for flow meters, moisture sensors and weather stations would be implemented to control, monitor and record irrigation system operation. It is expected that the controller would be a readily available "off-the-shelf" product and would be implemented and operated by the Proponent.

7.4. Transition to Regional Stormwater Scheme

Once the regional stormwater management infrastructure that forms part of the Mamre Road Precinct Stormwater Scheme Plan is in place, some of the interim measures that make up the stormwater management strategy within the Mamre Road Data Centre Campus will need to be decommissioned. A summary of the general decommissioning requirements is presented in **Table 11**.

Table 11: Decommissioning requirements for interim stormwater management measures

Element	Decommissioning requirement
GPTs	Will continue to be operated and maintained post-completion of the regional stormwater scheme.
OSD Tanks	Will continue to be operated and maintained post-completion of the regional stormwater scheme.
Interim stormwater retention and local irrigation	- Once regional scheme infrastructure is place, the OSD tank(s) would be configured to their ultimate arrangement to remove any retention component. - Interim irrigation system will be removed.

8. Performance Assessment

8.1. Hydrological and Hydraulic Modelling

DRAINS modelling software has been used to calculate the Hydraulic Grade Line (HGL) of the proposed estate-wide stormwater network, including pits, pipes, overland flow paths and detention basins. DRAINS is a software package used for designing and analysing urban stormwater drainage systems and catchments. It is widely accepted by Council's across NSW as the basis for stormwater design and has been confirmed by Penrith City Council as the preferred stormwater software analysis package.

A summary of the key hydrological and hydraulic design parameters adopted in DRAINS to develop a major and minor system drainage design for the proposed development are as follows:

- Rainfall intensities have been adopted using the Bureau of Meteorology Design Rainfall Data System (2016).
- Hydrological input parameters:
 - ▶ Paved (impervious) area depression storage: 1 mm
 - ▶ Grassed (pervious) area depression storage: 5 mm
 - ▶ Soil Type: 3
- Times of concentration for each sub catchment have been determined using the friend's equation.
 - ▶ Minimum tc: 5 minutes
 - ▶ Maximum tc: 20 minutes
- Pit Loss coefficients have been calculated in accordance with the Missouri-Hare Charts as documented in the Queensland Urban Drainage Manual.
- Onsite detention methodology: Post development flows are to be less than Predevelopment site flows for a range of design storm events between and including the 50% AEP and 1% AEP.

8.2. Stormwater Quality and Flow Volume Modelling

8.2.1. MUSIC Model Parameters

The proposed stormwater treatment train has been modelled using the MUSICX software package (Version 1.50). The MUSIC model of the proposed stormwater management strategy has been created to simulate post-development mean annual loads, treatment train effectiveness and daily water balance to generate calculations of mean annual runoff volume (MARV) and flow percentiles. MUSIC model parameters including rainfall and evaporation, rainfall-runoff and source node pollutant generation are consistent with the parameters adopted in the *MUSIC Modelling Toolkit – Wianamatta* (NSW DPIE, 2021).

8.2.2. Scenario Modelling

A MUSIC model has been created to estimate post-development mean annual loads and runoff volumes under Phase 4, being the extent of development that is achievable in advance of delivery of regional stormwater scheme infrastructure.

Source nodes for each of the proposed lots have been adopted based on the proposed development layout developed by Greenbox Architecture. The MUSIC model layout of the phased development is presented in **Figure 11**.

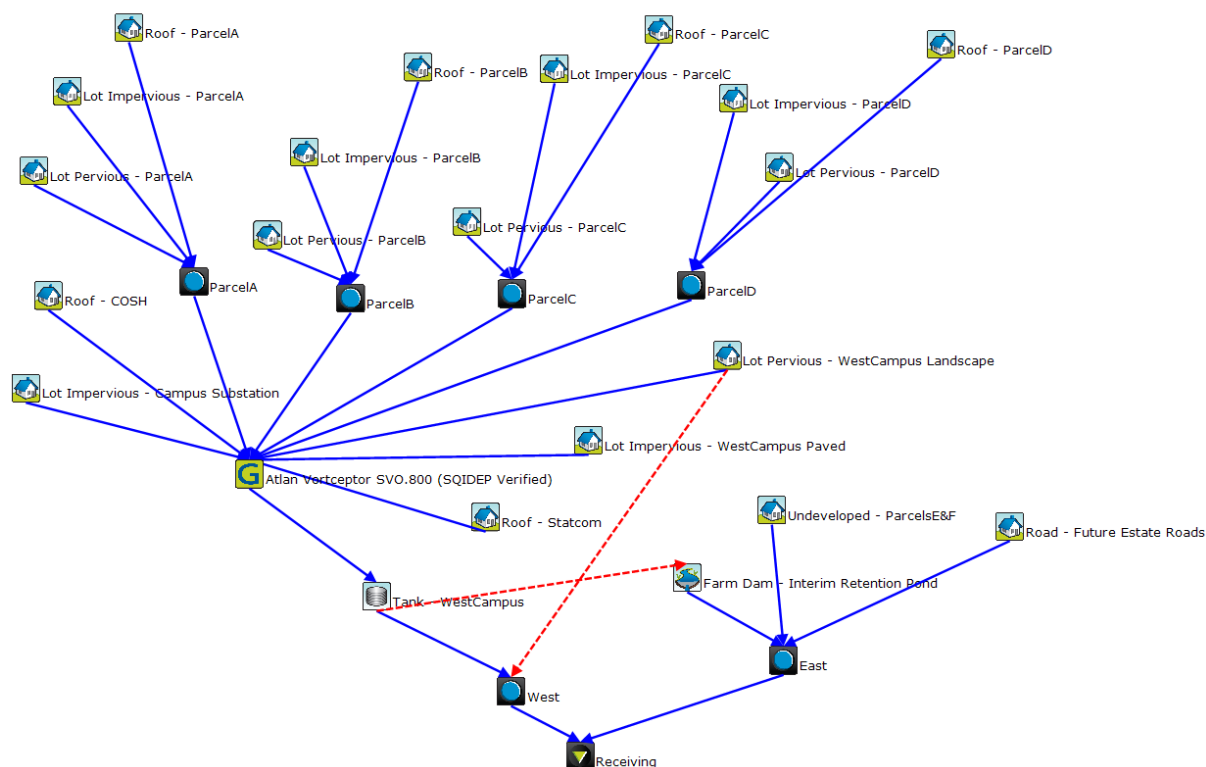


Figure 11: Post-development MUSIC model layout – Phase 4

The proposed land use breakdown for each of the catchments under the post-development scenario (Interim Arrangement only) is included in **Appendix D**. A plan depicting the catchment breakdown under the Interim Arrangement is included in **Appendix E**.

8.3. Performance against stormwater targets

8.3.1. Stormwater quality

MUSIC model results presented as mean annual load and percentage reduction (treatment train effectiveness) are presented in **Table 12** (for the western catchment to Mamre Road) and **Table 13** (for the eastern catchment to Bakers Lane).

Table 12: Summary of MUSIC modelling results against stormwater quality targets – Phase 4 (western catchment)

Parameter	Sources – Post-Development	Residual Load – Post-Development	Reduction (%)	Target Option 1 – annual load reduction	Residual load per unit area (kg/ha/yr)	Target Option 2 – allowable mean annual load
TSS (kg/yr)	34702	981	97.2	90	58.0	< 80kg/ha/yr
TP (kg/yr)	64.91	2.79	95.7	80	0.16	< 0.3kg/ha/yr
TN (kg/yr)	351.9	25.8	92.7	65	1.53	< 3.5kg/ha/yr
Gross Pollutants (kg/yr)	4122.8	0.0	100.0	90	0.00	< 16kg/ha/yr

NB: shaded cells indicate compliance against the operational phase water quality targets outlined in the MUSIC Modelling Toolkit – Wianamatta (NSW DPE, April 2022).

Table 13: Summary of MUSIC modelling results against stormwater quality targets – Phase 4 (eastern catchment)

Parameter	Sources – Post-Development	Residual Load – Post-Development	Reduction (%)	Target Option 1 – annual load reduction	Residual load per unit area (kg/ha/yr)	Target Option 2 – allowable mean annual load
TSS (kg/yr)	34702	981	97.2	90	58.0	< 80kg/ha/yr
TP (kg/yr)	64.91	2.79	95.7	80	0.16	< 0.3kg/ha/yr
TN (kg/yr)	351.9	25.8	92.7	65	1.53	< 3.5kg/ha/yr
Gross Pollutants (kg/yr)	4122.8	0.0	100.0	90	0.00	< 16kg/ha/yr

NB: shaded cells indicate compliance against the operational phase water quality targets outlined in the MUSIC Modelling Toolkit – Wianamatta (NSW DPE, April 2022).

The MUSIC model results presented above demonstrate that the proposed interim campus-wide stormwater management measures would satisfy the Option 1 (pollutant reduction) targets at the western point of discharge and the Option 2 (allowable mean annual load) targets at the eastern point of discharge.

8.3.2. Stormwater quantity (peak flow attenuation)

Eastern catchment towards Bakers Lane

Table 14 presents the pre-development and post development flow rates, generated by hydrologic and hydraulic modelling in DRAINS, for a range of events between and including the 50% AEP and 1% AEP design storm events at the Bakers Lane discharge point from the site.

Table 14: Pre-development and post-development peak flow rates from the proposed development – Bakers Lane outlet

Design Storm Event	Pre-Development Peak Flow Rate (m ³ /s)	Post-Development Peak Flow Rate (m ³ /s)
	Bakers Lane outlet	Bakers Lane outlet
50% AEP	1.23	0.60
5% AEP	3.72	1.80
1% AEP	6.24	3.00

The DRAINS model results demonstrate that the post-development peak flow rates would be less than or equal to pre-development peak flow rates for a range of storm events between (and including) the 50% AEP and 1% AEP design events. Therefore, the stormwater drainage system and detention tanks as proposed would satisfy the development controls relating to stormwater quantity management.

Western catchment towards Mamre Road

Table 15 presents the pre-development and post development flow rates, generated by hydrologic and hydraulic modelling in DRAINS, for a range of events between and including the 50% AEP and 1% AEP design storm events at the Mamre Road discharge point from the site.

Table 15: Pre-development and post-development peak flow rates from the proposed development – Mamre Road outlet

Design Storm Event	Pre-Development Peak Flow Rate (m ³ /s)	Post-Development Peak Flow Rate (m ³ /s)
	Mamre Road outlet	Mamre Road outlet
50% AEP	1.04	1.03
5% AEP	3.22	2.30
1% AEP	5.73	2.84

The results presented above demonstrate that the proposed stormwater management measures will satisfy the stormwater quantity management objectives for the Site.

8.3.3. Stormwater runoff volume

MUSIC model results demonstrating performance of the proposed stormwater management measures at the western and eastern discharge points under Phase 4 development conditions are presented below in **Table 16** and **Table 17** respectively.

Table 16: Summary of MUSIC model results against stormwater runoff volume targets – Phase 4 (western catchment)

Parameter	Result	DCP Target	Complies with DCP target	
			DCP Option 1 (MARV approach)	DCP Option 2 (Flow Duration Curve approach)
Mean annual runoff volume (ML/ha/yr)	1.98	2.0	✓	n/a
95%ile flow (L/ha/day)	25776	3000 to 15000	n/a	✓
90%ile flow (L/ha/day)	1952	1000 to 5000	✓	✓
75%ile flow (L/ha/day)	55	100 to 1000	n/a	×
50%ile flow (L/ha/day)	6.2	5 to 100	✓	✓
10%ile flow (L/ha/day)	0	0	✓	n/a
Cease to flow	21.3	10% to 30%	n/a	✓

Table 17: Summary of MUSIC model results against stormwater runoff volume targets – Phase 4 (eastern catchment)

Parameter	Result	DCP Target	Complies with DCP target	
			DCP Option 1 (MARV approach)	DCP Option 2 (Flow Duration Curve approach)
Mean annual runoff volume (ML/ha/yr)	1.18	2.0	✓	n/a
95%ile flow (L/ha/day)	2209	3000 to 15000	n/a	×
90%ile flow (L/ha/day)	833	1000 to 5000	×	×
75%ile flow (L/ha/day)	196.3	100 to 1000	n/a	✓
50%ile flow (L/ha/day)	24.0	5 to 100	✓	✓
10%ile flow (L/ha/day)	0.0	0	✓	n/a
Cease to flow	16.6	10% to 30%	n/a	✓

The resultant flow duration curves are presented in **Figure 12**.

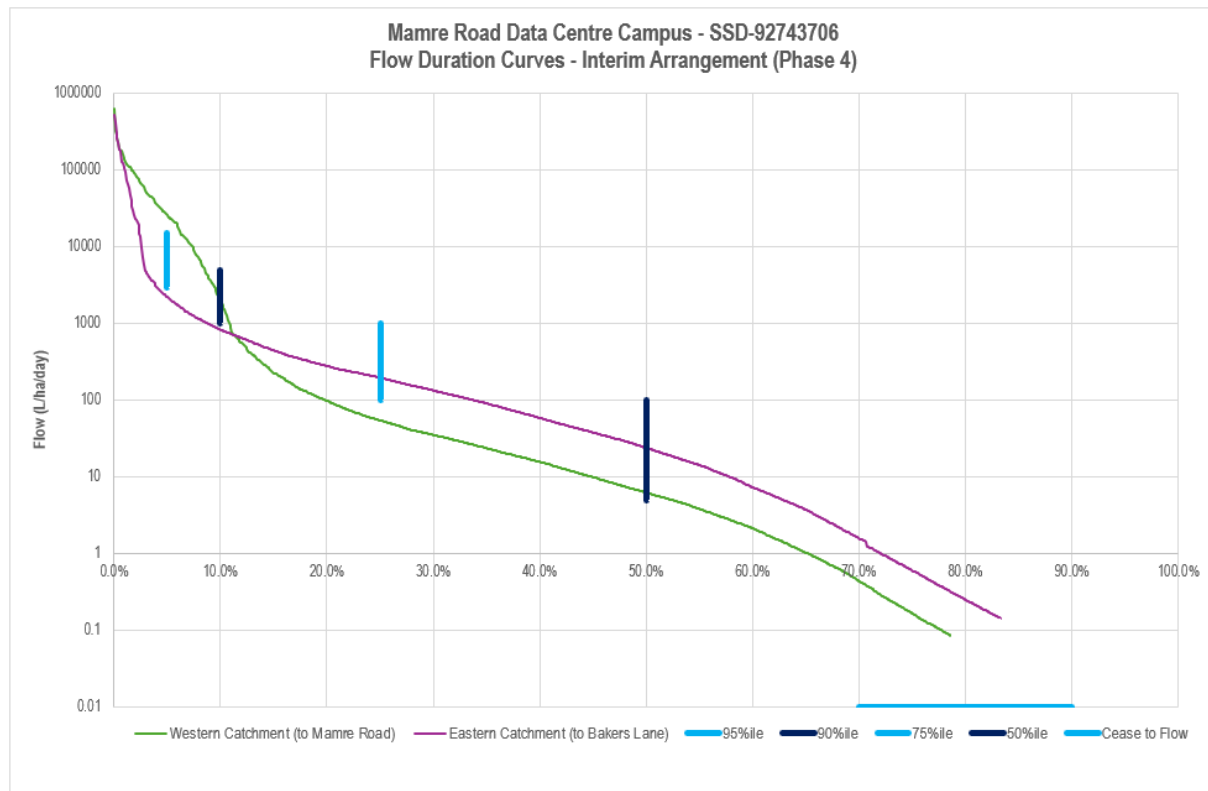


Figure 12: Flow duration curve for the proposed stormwater management measures (Interim Arrangement)

The results presented above demonstrate the proposed stormwater management measures that will be implemented across the site satisfy the Option 1 and Option 2 DCP stormwater runoff volume targets for the site at the western point of discharge. The results at the eastern point of discharge reflect the undeveloped condition of that part of the site under Phase 4 conditions.

The results of MUSIC modelling for the proposed interim arrangement represents the site under Phase 4 developed conditions, without planned regional stormwater management measures in place (refer to **Section 7.2** for overview of the stormwater management measures at each of the various phases of development).

Based on the Mamre Road Precinct SSP, future wetlands, bio-retention systems and harvesting ponds west of Mamre Road will ultimately service the site and will satisfy the waterway health objectives and controls adopted in the Mamre Road Precinct DCP.

9. Maintenance and Operations

All proposed interim water management measures within the Mamre Road Data Centre Campus would be managed and maintained by the proponent. An Inspection and Maintenance Plan will be prepared and lodged with the construction certificate for the subdivision works once final design details and the extent and layout of all proposed water management measures is confirmed.

It is anticipated that the Inspection and Maintenance Plan would be prepared using current best practice guidance such as *Water sensitive urban design inspection and maintenance guidelines* (Penrith City Council, 2022) and would describe:

- Each of the functional components of each water management measure
- Expertise required to inspect, maintain and (where necessary) repair or replace components
- Minimum required frequency of inspection, repair or replacement activities
- Inspection and maintenance forms that list all necessary activities and contain a record of activities completed.

Campus-wide measures such as rainwater tanks and GPTs will be managed and maintained by the Proponent, with inspection and maintenance requirements consistent with those described above.

The planned regional stormwater management scheme, which would incorporate measures to manage stormwater quality and volume across the Mamre Road Precinct, would be managed and maintained by Sydney Water.

Appendix A – Feasibility Letter from Sydney Water

Case number **223420**

June 10, 2025

[REDACTED]
c/ - AT&L AND ASSOCIATES PTY LTD

Feasibility Letter

Developer: [REDACTED]
Your WSC's reference: 25-1282
Development: Lot 10 DP1280592
706-752 MAMRE RD, St Marys
Development description: Data Centre across approximately 43 hectares, including up to six (6) four storey data centre parcels
Your application date: May 14, 2025

Dear Applicant

This Feasibility Letter (Letter) is a guide only. It provides general information about what our requirements could be if you applied to us for a Section 73 Certificate (Certificate) for your proposed development. **The information is accurate at the date of this letter only.**

We have not allocated any system capacity to your proposed development. This letter only provides an indication of our systems' capacities and our possible requirements as they exist at the date of this letter. Where there is system capacity identified, it may have been fully utilised by the time you obtain a Development Consent. Our requirements for any future Development Consent may differ significantly to what is identified in this letter. These changes may arise because:

- you change your proposed development e.g. the development description or the plan/site layout
- you decide to do your development in stages then you must submit a new application (and pay another application fee) for each stage
- the demand on our system(s) has changed.

If you obtain Development Consent for that development from your consent authority (this is usually your local Council) they will require you to apply to us for a Section 73 Certificate (Certificate). You will need to submit a new application (and pay another application fee) to us for that Certificate by using your current or another Water Servicing Coordinator (WSC).

We'll then send you either a:

- Notice of Requirements (Notice) and Developer Works Deed (Deed)
Or
 - Certificate.
-
- These documents will be the definitive statement of our requirements.

No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from us and to the extent that it is able, we limit the liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.

To get your Certificate in the future you'll need to do the following things. You can also find about our process at [Plumbing, building & developing on our website](#).

1. Get Development Consent from a consent authority for your development proposal.

2. Engage a Water Servicing Coordinator

You'll need to engage your current or another Water Servicing Coordinator (WSC) to manage the design and construction of works that you must provide, at your cost to service your **development**.

You'll find a list of WSC's at [Listed providers on our website](#).

Your WSC will be your point of contact with us. They'll answer questions about our process and any developer charges you might have to pay. They can give you a quote or information about costs for services, works and our costs.

As of the date of this advice, it is anticipated that no Sydney Water Construction works are required. Your WSC can advise you about this.

3. Drinking water, recycled water and sewer works

3.1 Drinking water

Your development must have a frontage to a water main that is the right size and can be used for connection.

We've assessed your application and found that:

The proposed development is located within Cecil Park Water Supply Zone.

The existing drinking water system has **very limited capacity** to serve the proposed development and may require trunk network upgrades. However, proposed demands and staging can be taken into account in Sydney Water's broader planning and delivery of upgrades to service ongoing development in this region.

The applicant is advised to continue to engage with Sydney Water (through the Growth & Development account manager) in understanding and progressing

appropriate next steps to investigate viability of servicing solutions collaboratively.

This would be linked to the broader data centres servicing initiative as well as the WSAGA / SWGA servicing strategy review and options work. While this development presents a servicing challenge on its own, this is a high growth area (including potential for other data centres) with limited system capacity and the broader context needs to be considered in developing a holistic servicing solution.

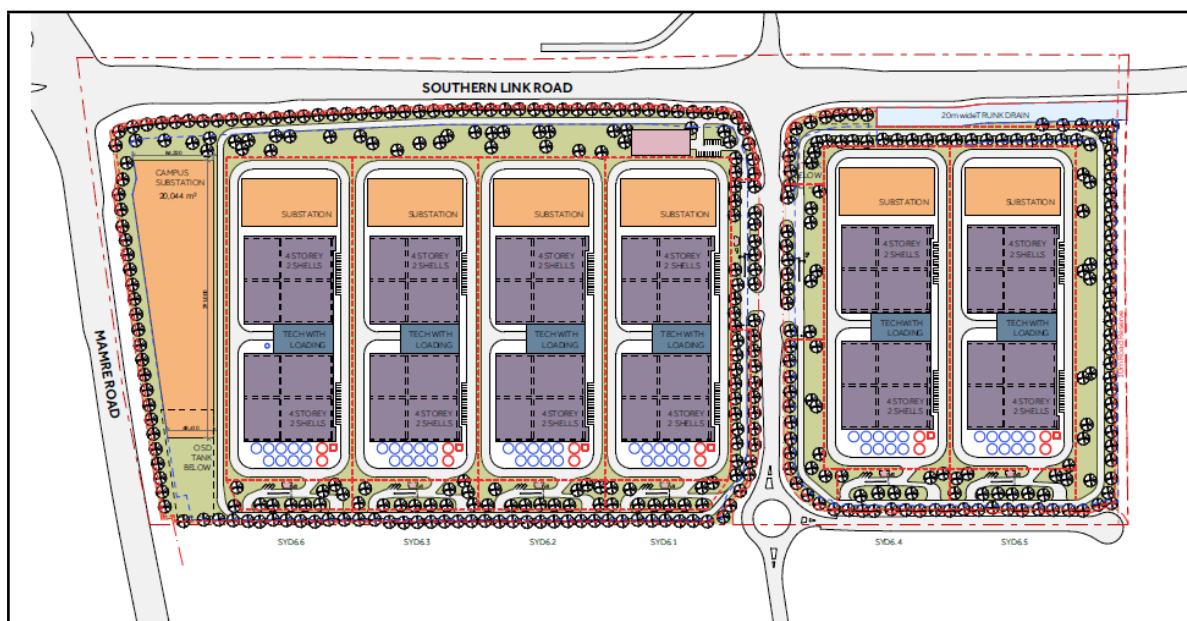


Figure 1 Proposed Development Plan

- A service connection and property service must be provided for your development off the drinking water main.
- They must comply with the standards for Dual Water Reticulation Systems talked about in section 3.2.1 below.

3.2 Recycled water

Your development must have a frontage to a recycled water main that is the right size and can be used for connection.

We've assessed your application and found that:

Recycled water and stormwater are a likely part of a water supply solution for this site. The Mamre Road recycled water scheme is designed to supply customers located within the Mamre Road precinct (to the west of your site). This would source recycled water from the Upper South Creek Advanced Water Recycling Centre (AWRC) and stormwater from the regional stormwater scheme.

These non-potable schemes may have some capacity to service customers outside of the Mamre Rd precinct but this hasn't been assessed in detail. This non-potable scheme is anticipated to be available from 2028 onwards.

Opportunities to service this site from the AWRC and/or through stormwater recycling could potentially be viable longer term either on their own or with supplementary sources and appropriate on-site infrastructure to manage peak demand events. However, further investigation would be required to understand the source, transfer system, cost and the financial viability of this supply.

The applicant is advised to continue to engage with Sydney Water (through the Growth & Development account manager) in understanding and progressing appropriate next steps to investigate viability of servicing solutions collaboratively. This would be linked to the broader data centres servicing initiative as well as the WSAGA / SWGA servicing strategy review and options work. While this development presents a servicing challenge on its own, this is a high growth area (including potential for other data centres) with limited system capacity and the broader context needs to be considered in developing a holistic servicing solution.

- A service connection and property service must be provided for your development off the drinking water main.
- They must comply with the standards for Dual Water Reticulation Systems talked about in section 3.2.1 below.

3.2.1 Our standards for dual water reticulation

Your development is in an area where both drinking and recycled water systems are available. The drinking and recycled water works required above must comply with the standards for Dual Water Reticulation Systems that are set down in the Water Supply Code of Australia (Sydney Water Edition) (the Code).

These standards require that service connections and property services be provided for both drinking and recycled water for your development. The installation of these services must either be carried out or supervised by a licensed plumber. It must meet the:

- Administrative requirements of the Plumbing Code of Australia; and
- Technical requirements of the Dual Water Drawings Set within the Code.

3.3 Sewer

Your development must have a sewer main that is the right size and can be used for connection. That sewer must also have a connection point within your development's boundaries.

We've assessed your application and found that:

The development lies in the natural catchment of SP1221 and St Marys wastewater system, however, the capacity of SP1221 and associated network infrastructure were not designed to handle such a large flow.

The servicing strategy for the data centres in Mamre development precinct is currently under review, due to known existing system capacity constraints. We envisage this review will be completed by the late 2026.

Servicing of this area would require the delivery of significant trunk assets that may take some time to deliver. Development before this time may require a commercial agreement and developer delivered assets and/or controlled discharge from the site.

The applicant is advised to continue to engage with Sydney Water (through the Growth & Development account manager) in understanding and progressing appropriate next steps to investigate viability of servicing solutions collaboratively.

This case will be reassessed during S73 application and system capacity and servicing requirements can be provided as part of a Section 73 response.

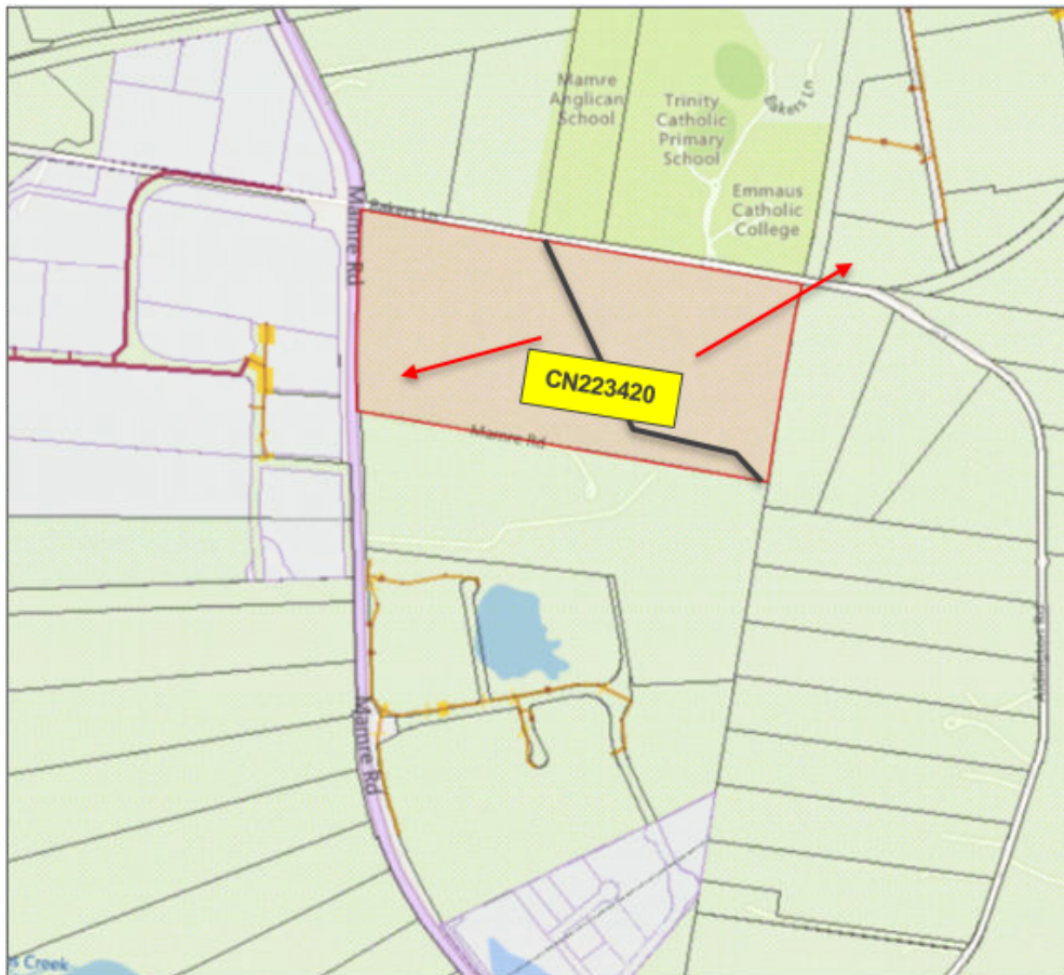


Figure 2 Development site and sewer network

Trade Wastewater Requirements

Due to the size and scope of the proposed development, Sydney Water is unable to provide a detailed feasibility assessment for trade wastewater discharge at this stage. The applicant must submit a formal trade waste application, which will be reviewed in accordance with Sydney Water's acceptance criteria. Any approval to discharge will be subject to a comprehensive assessment of the discharge volume and quality and their potential impact on the wastewater network and receiving treatment plant.

4. Stormwater Requirements

We understand this feasibility application is to determine if site will be suitable for a data centre.

The site must respond to the relevant stormwater requirements in the Mamre Road Development Control Plan.

The proposed regional stormwater scheme (with treated wastewater and potable water backup) has limited capacity to harvest and treat stormwater required to meet the proposed water demands for the data centres. However, proposed demands and staging can be considered in Sydney Water's broader planning study to service Data Centres.

Opportunities to service this site from the AWRC and/or through stormwater recycling could potentially be viable longer term either on their own or with supplementary sources and appropriate on-site infrastructure to manage peak demand events. However, further investigation would be required to understand the source, transfer system, cost and the financial viability of this supply.

The proponent must ensure the estate stormwater strategy that forms a part of the previous DA/SSDA approval for 706-752 Mamre Road are to be updated to reflect any changes that occur as part of the data centre development.

The applicant is advised to continue to engage with Sydney Water (through their Account Manager) in understanding and progressing appropriate next steps to investigate viability of servicing solutions collaboratively. Sydney Water is keen to work with the developer and WSC to undertake a modelling exercise to determine the infrastructure needs to service the development with stormwater/recycled water from the regional stormwater scheme.

4.1 Stormwater Infrastructure Contributions (IC)

The proposed development will be serviced by Sydney Water's integrated regional stormwater infrastructure and an infrastructure contribution will be applicable proposed development.

The [DSP for Mamre Road Precinct](#) is now registered. The DSP will outline Infrastructure Contributions to be paid to Sydney Water for the provision of implementation of the Integrated stormwater scheme to achieve both stormwater conveyance and stormwater quality and flow reduction infrastructure, including recycled water, to the Precinct.

When you've completed all other requirements under the final Notice, Sydney Water will issue an invoice for your Infrastructure Contribution calculated in accordance with the DSP. You must pay this invoice before the S73 Certificate can be issued.

Please see below the estimated Infrastructure Charge for this development

Developable Area Ha	Rate per HA (2024-25)	Total
43.472	\$ 877,200	\$38,133,638.4

Note

- IC for this development is indicative only and will be verified at the S73 application.
- IC has been estimated based on the estimated Integrated Stormwater Infrastructure Contribution prices for the FY2024-25. This price will be adjusted each financial year based on changes in the Consumer Price Index (CPI). If the S73 application is made in the next FY, this price (FY24-25) is not applicable.
- Net Developable Area considered in estimating the IC is as follows. These areas will be verified at the S73 application.
 - ☐ Lots (IN1) – 42.244 Ha
 - ☐ Local Roads – 1.228 Ha
 - ☐ Total – 43.472 Ha



Figure 3 Net Developable Area

5. Ancillary adjustments

5.1 Asset adjustments

If any of our drinking water main, recycled water main, sewer or stormwater asset constructed or under construction is found, after the issue of this Notice, to require adjustment or deviation as a result of your development; then you'll need to do this work as well as any other works we have detailed above at your cost. The work must meet the conditions of this Notice and you'll need to complete it **before we can issue the Certificate**. We'll need to see the completed designs for the work, and we'll require you to lodge a security. The security will be refunded once the work is completed.

6. Infrastructure contributions

You will need to pay an infrastructure contribution towards the cost of each Sydney Water system that will serve your development.

The infrastructure contributions are calculated in accordance with the Development Servicing Plans registered with the Independent Pricing and Regulatory Tribunal (IPART) under the *Independent Pricing and Regulatory Tribunal Act*.

An estimate of your infrastructure contributions is shown in the table below. These amounts have the NSW Government-directed cap applied for the current financial year. **These amounts are subject to the NSW Government transition pathway and other factors and will change** – see Section 6.1 Price Changes for full details.

No payments can be accepted for these estimates. Should you obtain Development Approval for this proposal and apply for a Section 73 Certificate in the future, then we'll advise you of the applicable charges to your Development.

Development Servicing Plan (DSP)	Basis of Calculation	Charge (\$) for Applicable Period (6/6/25 - 6/30/25)
Greater Sydney Drinking Water	Other Flow 6220.8 @ \$850 per ET = \$12,296,930.23 based on Flow rates in paragraph below less Credit of \$0.0 for previous payment/use	\$12,296,930.23
Nepean River Wastewater	Other Flow 12441.6 @ \$4149.28per ET = \$135,851,794.86 based on Flow rates in paragraph below less Credit of \$0.0 for previous payment/use	\$135,851,794.86
DEVELOPER CHARGES TOTAL:		\$148,148,725.09

- The charges in the table, and our detailed requirements are based on your development needing an average day water demand of **6,220.8 kL** and an average day sewer discharge of **12,441.6 kL**.
- If the development generates a greater demand, you may have to pay more in charges, and we may need to revise the requirements. If you are going to sell the development, you have to explain the situation to prospective buyers as part of the requirements of Vendor Disclosure.**

6.1 Price changes

The infrastructure contribution you must pay may also change due to:

1. Changes to the Consumer Price Index (CPI). Our prices increase by CPI each financial year. CPI is the weighted average of the capital cities CPI for the 12 months to the end of the previous March.
2. The NSW Government-directed transition pathway for infrastructure contributions for drinking water and wastewater infrastructure:

Financial Year payment is made	Percentage of infrastructure contribution payable
1 July 2023 to 30 June 2024	Infrastructure contribution capped at 0% of the full price
1 July 2024 to 30 June 2025	Infrastructure contribution capped at 25% of the full price
1 July 2025 to 30 June 2026	Infrastructure contribution capped at 50% of the full price
1 July 2026 onwards	Full price payable

3. Any updates to our Development Servicing Plans (including prices). Our Development Servicing Plans must be updated every five years. The next updates will be introduced by 31 December 2028.

Your infrastructure contributions become payable once your WSC has submitted all Project Completion Packages under each Developer Works Deed to us confirming that the works required under the Notice are complete.

Other things you need to do

There might be other things you need to do that are NOT a requirement for the Certificate. These could be requirements set by us in the future because of the impact of your development on our assets. You must read them before you go any further.

Approval of your building plans

Please note that your building plans must be approved. This can be done on our Tap in™ system [Sydney Water Tap in](#)™ or call 13 20 92.

This is not a requirement of the Certificate, but the approval is needed because construction/building works may impact on our existing assets (e.g. water and sewer mains). In any case, these works **MUST NOT** commence until we have granted approval.

Your WSC can tell you about the approval process including:

- Possible requirements
- Their costs
- Timeframes.

We recommend that you apply for Building Plan Approval early as in some instances your WSC may need to refer your building plans to us for detailed review. You'll be required to pay us for the costs associated with the detailed review.

Note: You must obtain our written approval before you do any work on our systems. We'll take action to have work stopped on the site if you do not have that approval. We will apply Section 44 of the *Sydney Water Act 1994*.

Disused Sewerage Service Sealing

Please don't forget that you must pay to disconnect all disused private sewerage services and seal them at the point of connection to our sewer main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed drainer. The licensed drainer must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Soffit Requirements

Please be aware that floor levels must be able to meet our soffit requirements for property connection and drainage.

Fire Fighting

If your Development is within the Rouse Hill Development Area then your firefighting service must be drawn from the recycled water system.

For all other areas with recycled Water available, only Domestic supply is from the recycled system. The Fire Services from these areas is from the drinking water mains.

Definition of fire fighting systems is the responsibility of the developer and is not part of the Section 73 process. It is recommended that a consultant should advise the developer regarding the fire fighting flow of the development and the ability of our systems to provide that flow in an emergency. Our Operating Licence directs that our mains are only required to provide domestic supply at a minimum pressure of 15 m head.

A report supplying modelled pressures called the Statement of Available pressure can be purchased on-line through [Sydney Water Tap in](#)™ and may be of some assistance when defining the fire fighting system. The Statement of Available pressure may advise flow limits that relate to system capacity or diameter of the main and pressure limits according to pressure management initiatives. If mains are required for fire fighting purposes, the mains shall be arranged through the water main extension process and not the Section 73 process.

Large Water Service Connections (Dual Water)

A drinking water main and a recycled water main are available to serve your development. The size of your development means that you will need dual water connections larger than the standard domestic 20 mm size.

To get approval for your connection, you will need to lodge an application on our [Sydney Water Tap in](#)™. You, or your hydraulic consultant, may need to supply the following:

- a plan of the hydraulic layout
- a list of all the fixtures/fittings within the property
- a copy of the fireflow pressure inquiry issued by us
- a pump application form (if a pump is required)
- all pump details (if a pump is required).

You'll have to pay an application fee.

The service connection will need to meet with:

Administrative requirements of the Plumbing Code of Australia; and
Technical requirements of the Dual Water Drawings Set within the Code.

We don't consider whether a water main is adequate for fire fighting purposes for your development. We can't guarantee that this drinking/recycled water supply will meet firefighting requirements. You should seek specific advice about firefighting requirements, the Council/Private Certifier and your hydraulic consultant can help.

Disused Water Service Sealing

You must pay to disconnect all disused private water services and seal them at the point of connection to our water main. This work must meet our standards in the Plumbing Code of Australia (the Code) and be done by a licensed plumber. The licensed plumber must arrange for an inspection of the work by a NSW Fair Trading Plumbing Inspection Assurance Services (PIAS) officer. After that officer has looked at the work, the drainer can issue the Certificate of Compliance. The Code requires this.

Other fees and requirements

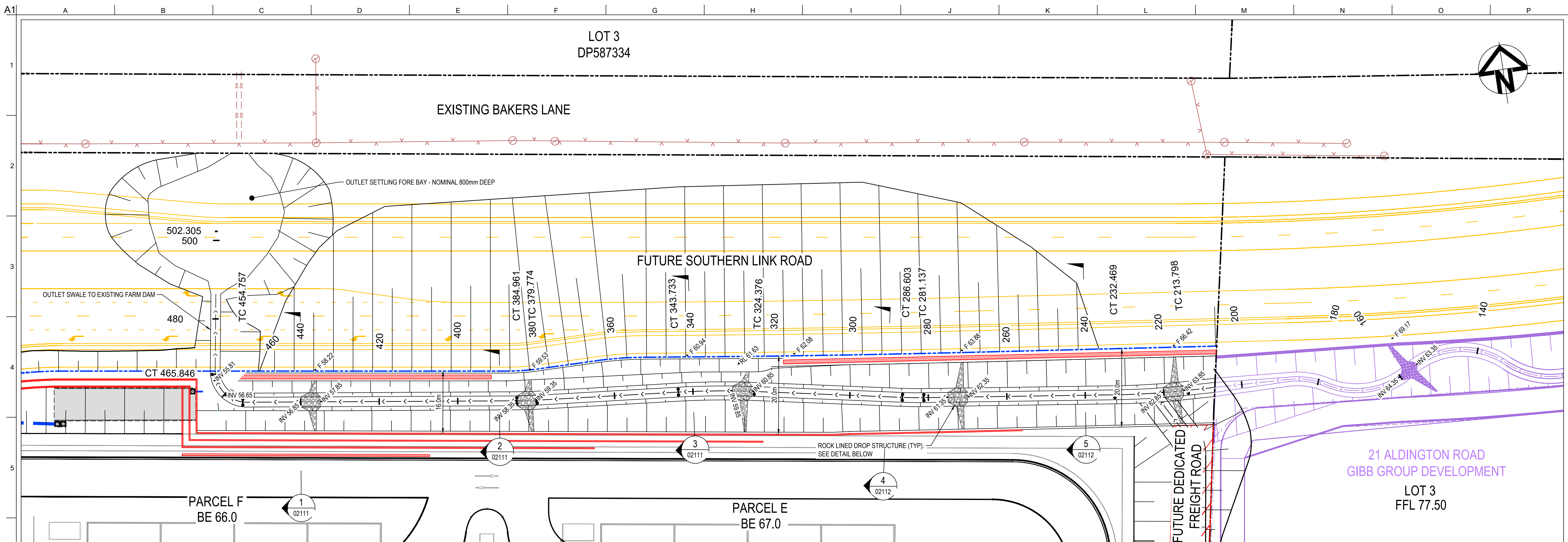
The requirements in this Advice Letter relate to your future Certificate application only. We may be involved with other aspects of your development and there may be other fees or requirements. These include:

- construction/building plan approval fees
- plumbing and drainage inspection costs
- the installation of backflow prevention devices
- trade waste requirements
- large water connections and
- council firefighting requirements. (It will help you to know what the firefighting requirements are for your development as soon as possible. Your hydraulic consultant can help you here)

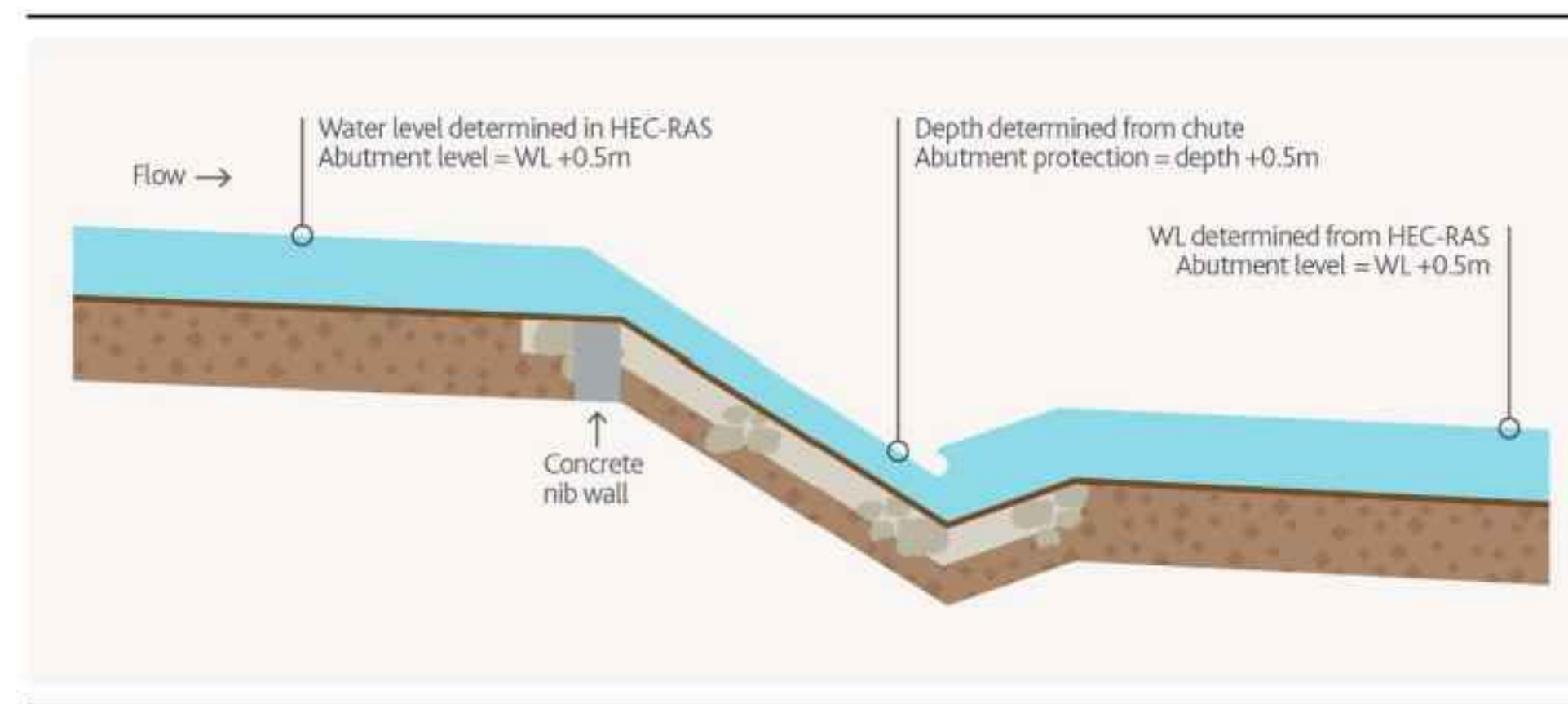
No warranties or assurances can be given about the suitability of this document or any of its provisions for any specific transaction. It does not constitute an approval from us and to the extent that it is able, we limit its liability to the reissue of this Letter or the return of your application fee. You should rely on your own independent professional advice.

END OF ADVICE

Appendix B – Trunk Drainage Channel Drawings

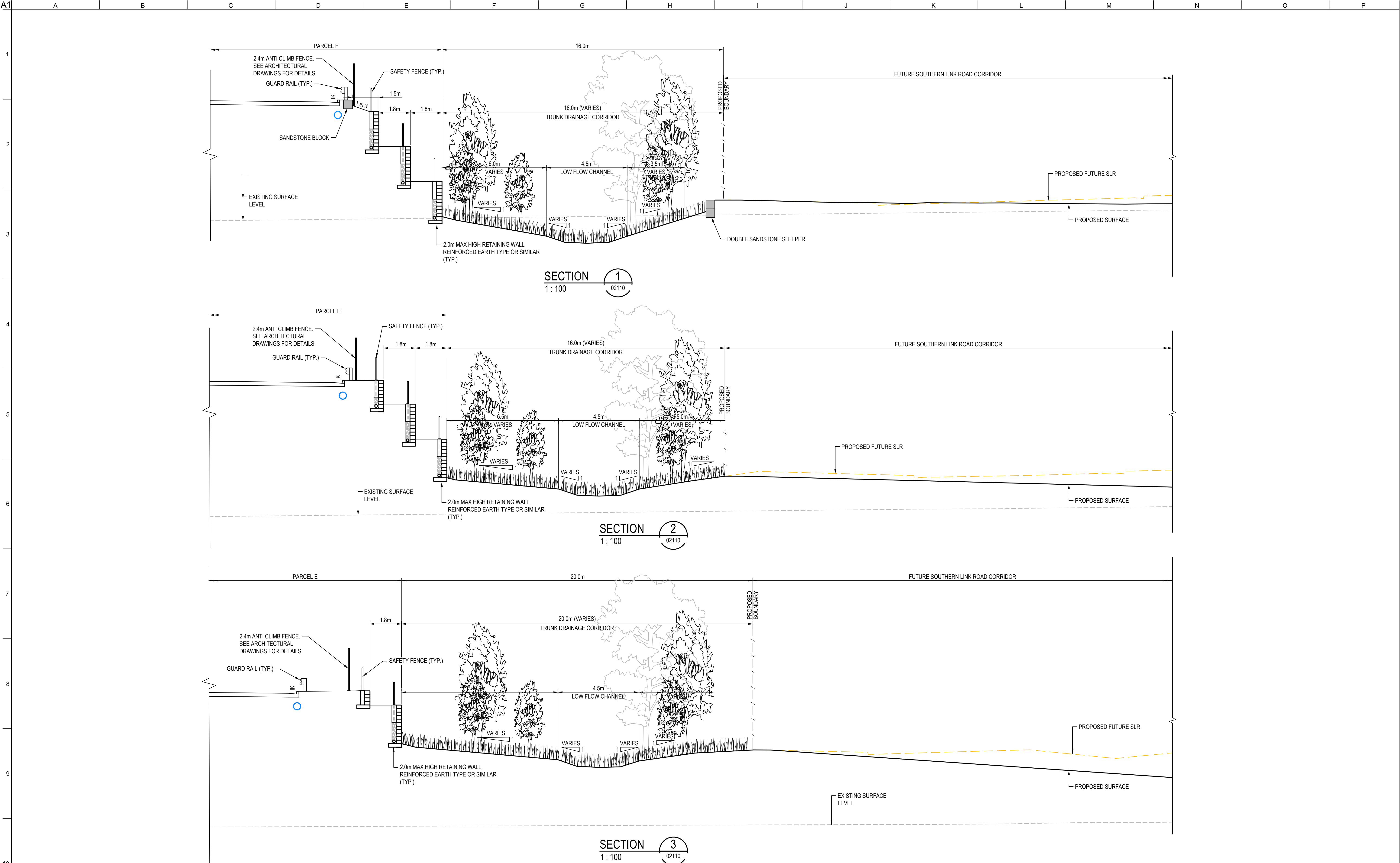


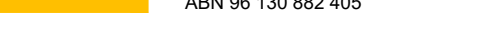
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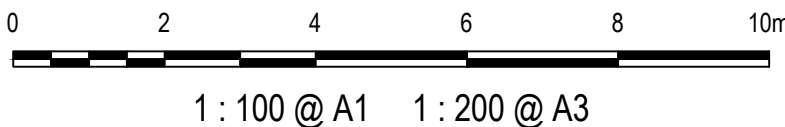


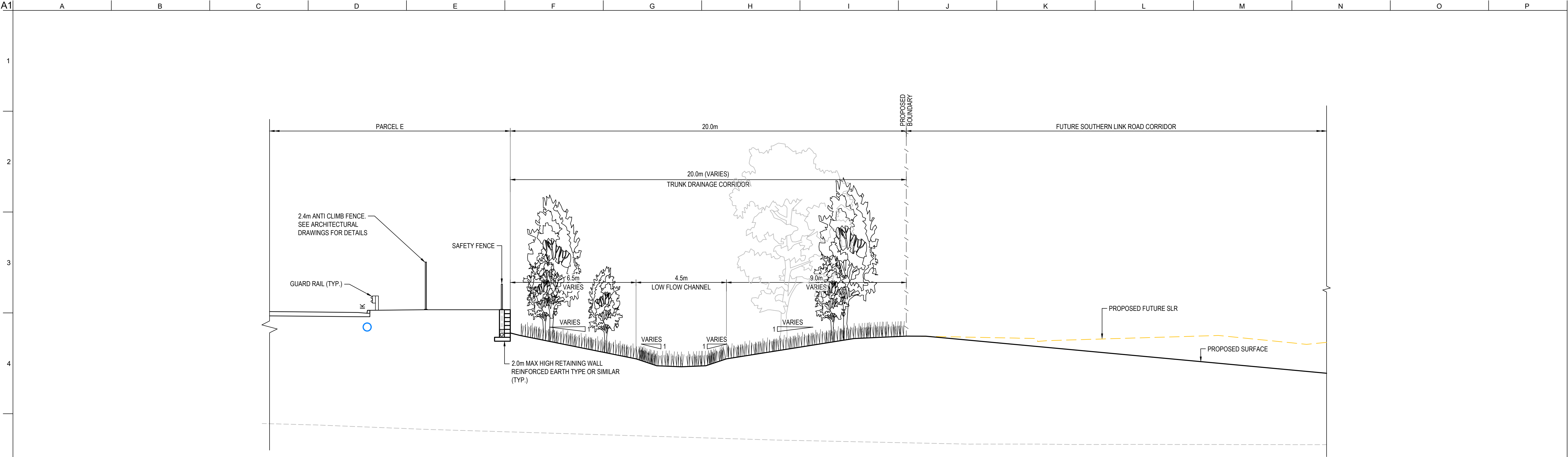
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(FROM MELBOURNE WATER CONSTRUCTED WATERWAYS DESIGN MANUAL)
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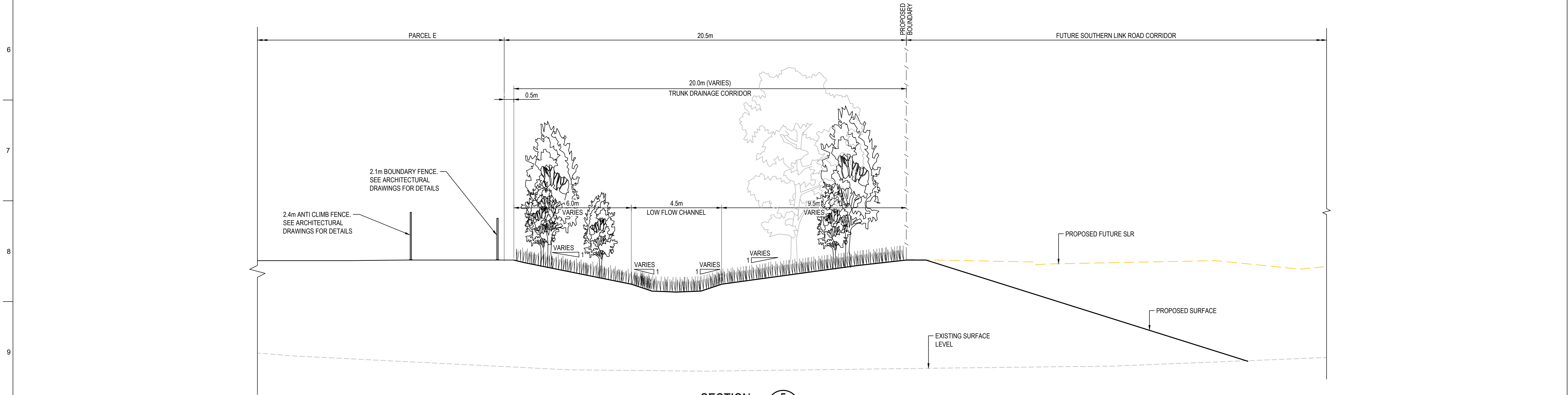


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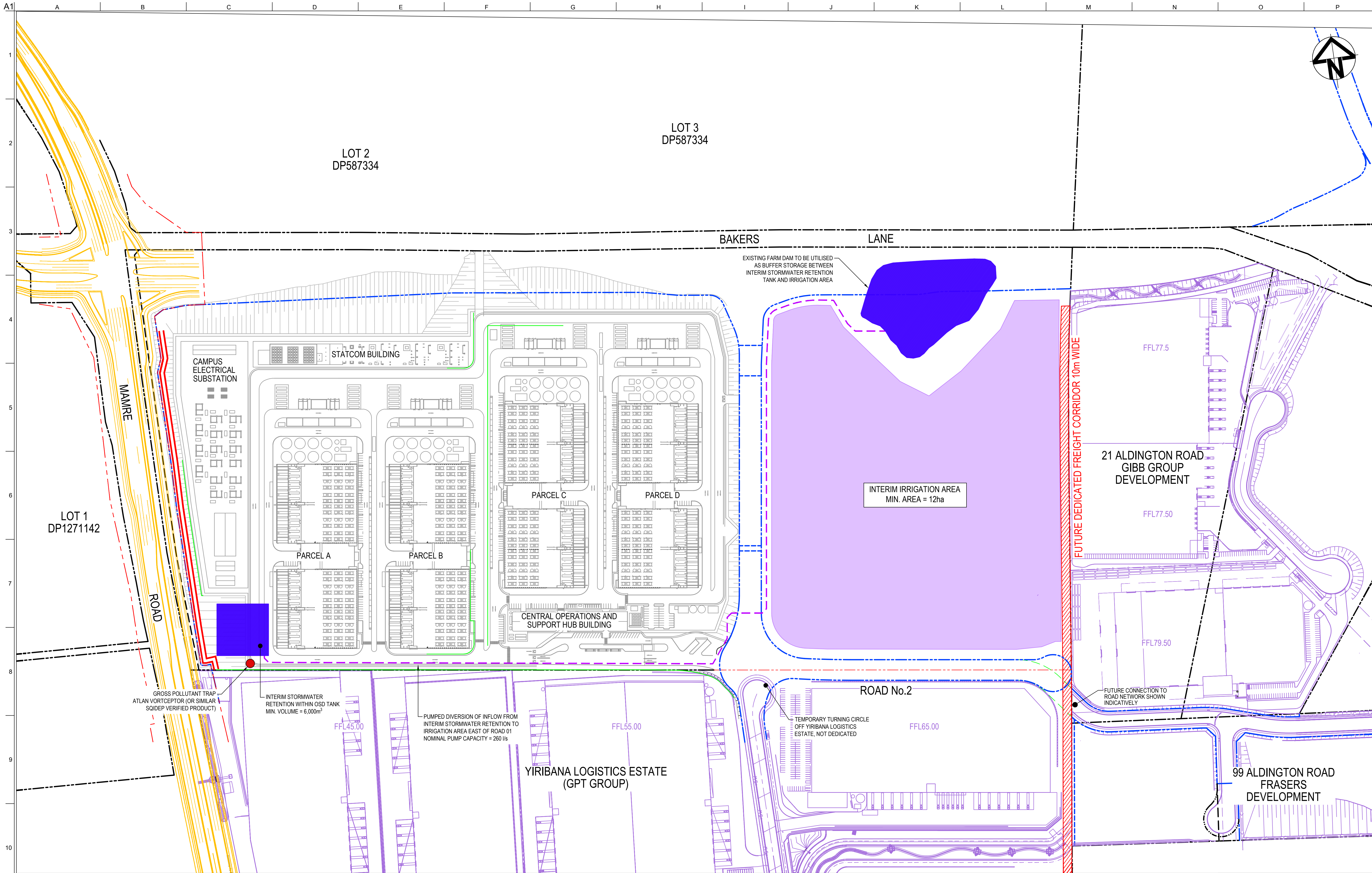


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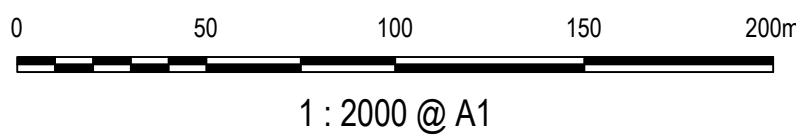
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Appendix C – Stormwater Management Plan (Interim Arrangement)

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Appendix D – Catchment and WSUD Parameters (Interim Arrangement)

Mamre Road Data Centre Campus - SSD-92743706

Catchments & WSUD Elements

Catchment ID	Total Area (ha)	Roof (ha) (100% impervious)	Paved (ha) (100% impervious)	Landscape (ha) (0% impervious)	Undeveloped (ha) (0% impervious)	Estate Road (ha) (85% impervious)
Eastern catchment (to Bakers Lane)						
Undeveloped Parcels E & F	15.203				15.203	
Future Estate Roads	1.702				1.702	
Sub-total - eastern catchment	16.905					
Western catchment (to Mamre Road)						
Parcel A	4.041	1.910	2.106	0.025		
Parcel B	4.073	1.910	2.138	0.025		
Parcel C	4.048	1.910	2.113	0.025		
Parcel D	3.978	1.910	2.043	0.025		
COSH	0.293	0.293				
Campus Substation	1.877		1.877			
Statcom	0.752	0.752				
West Campus	9.265		4.829	4.436		
Sub-total - western catchment	28.327					
TOTAL AREA	45.232					

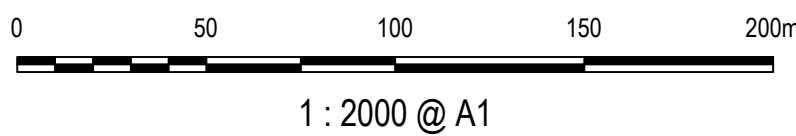
GPT	Interim Stormwater Retention	
	Volume (m³)	Annual Demand (irrigation of undeveloped land) (kL/year)
Atlan Vortceptor SVO.800	6000	72000

Appendix E – MUSIC Model Catchment Plan (Interim Arrangement)

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01	21-10-25	ISSUED FOR CLIENT REVIEW
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