# Mamre Road Precinct Integrated Stormwater Development Servicing Plan

Final

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# 1 Executive Summary

This Development Servicing Plan (DSP) is for the Mamre Road Integrated Stormwater Scheme and incorporates all charges relating to the integrated stormwater management and recycled water service. It sets out assumptions used to estimate the proposed price for connecting a new development to the Integrated Stormwater System, through Infrastructure Contribution charges. The Infrastructure Contribution for Mamre Road Integrated Stormwater Scheme includes land acquisition and associated costs, and a range of infrastructure and assets for stormwater capture (such as stormwater basins and trunk drainage channels), stormwater harvesting and treatment, distribution of recycled stormwater to developments via a third pipe network and a scheme resilience connection to recycled wastewater sourced from the Upper South Creek Advanced Water Recycling Centre. Other Infrastructure Contributions may be payable depending on what services each development requires, for example, drinking water and wastewater.

In March 2022, the then Department of Planning and Environment (DPE) (now The NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW)) determined that a regionally managed integrated approach to the delivery of recycled water and stormwater services was the best value for money way to achieve the Western Parkland City vision. Sydney Water was subsequently appointed as the Regional Stormwater Authority for the Aerotropolis Initial Precincts, as well as the Mamre Road Precinct (together referred to as the Aerotropolis Precincts). At the same time, Sydney Water's ability to levy Infrastructure Contributions (ICs) from developers for stormwater servicing (as Councils currently do) was instated to support delivery of this service.

A key objective of the Regional Stormwater Authority is to achieve the NSW Government waterway health objectives and targets by meeting the stormwater flow and water quality targets for stormwater set out in the Mamre Road Development Control Plan.The estimated price for new stormwater connections has been calculated using the method set by Independent Pricing and Regulatory Tribunal (IPART) in their 2018 Determination. This document describes inputs that are specific to the Mamre Road precinct DSP area. For the Mamre Road precinct, the Regional Integrated Stormwater system includes natural water channels, wetlands and storage ponds where stormwater will be harvested as well as treatment and reticulation assets so the recycled stormwater can be used to irrigate parks, flush toilets and create a cooler, greener urban precinct. An integrated system is the most efficient way to protect the health of downstream waterways and maximise the amount of developable land in the precinct.

Using current estimates, the Infrastructure Contribution for the Mamre Road integrated stormwater DSP area is $92,070 ($2024-25) per Equivalent Tenement (ET), which, for this precinct, equates to $877,200 per developable hectare. This includes estimated reductions in cost detailed in IPART's

efficiency review report published on 12 December 2024. This rate matches the IPART deemed efficient cost of around $850,000 per developable hectare ($FY2024) for the scheme which has been escalated using the NSW Treasury guideline rates for cost escalation.[1]

Future Infrastructure Contributions will be inflated annually in line with the March on March Consumer Price Index (CPI) All Groups 8 capital cities as set out in IPART's 2018 Determination.

Table 1-1 sets out the estimated maximum prices that would be levied on new developments for stormwater services in the Mamre Road precinct DSP area from the date a final stormwater scheme DSP is registered with IPART, until the DSP is reviewed and replaced.

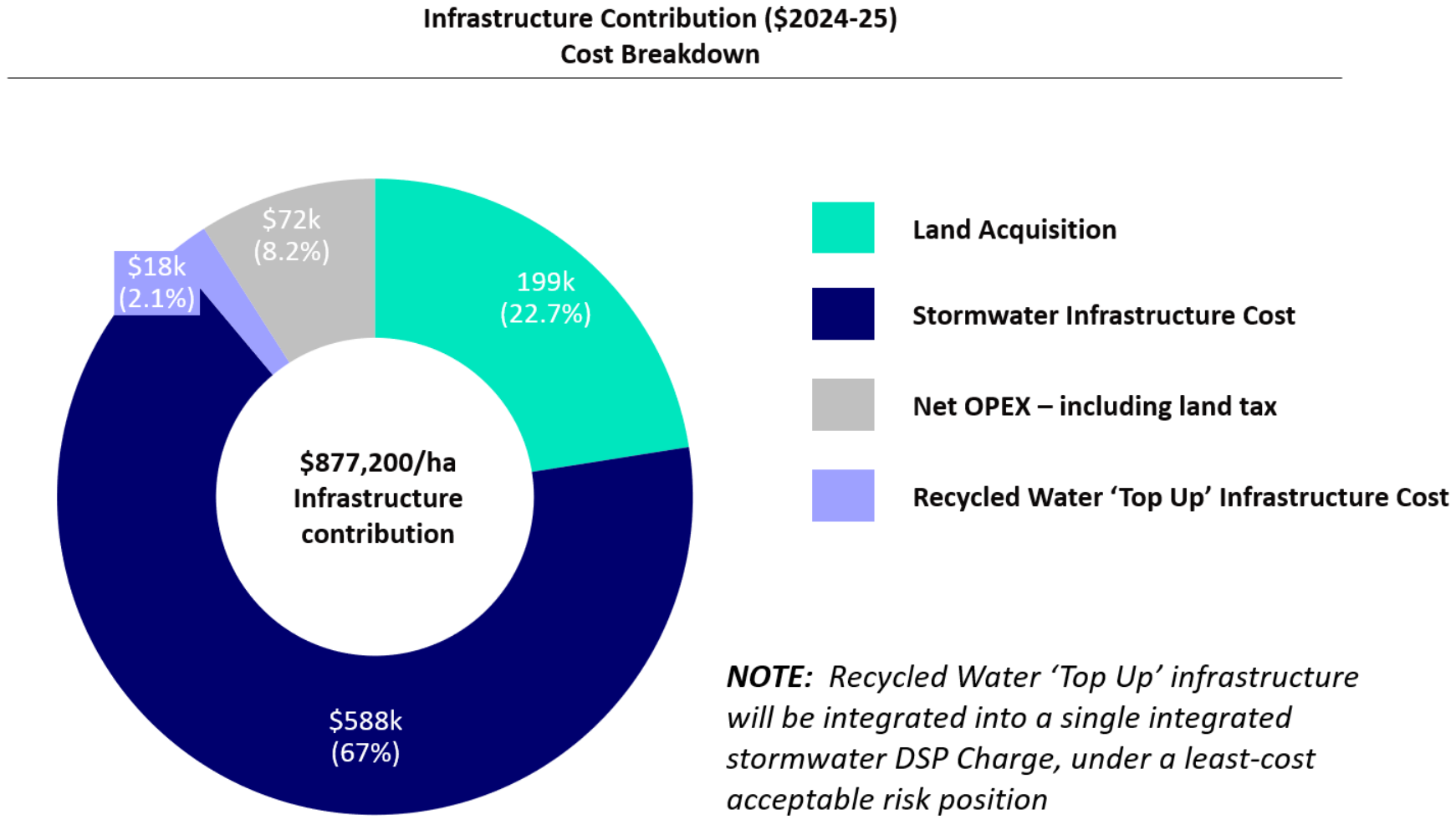
Table 1-1 Estimated Integrated Stormwater infrastructure contribution prices for this DSP area (FY 2024-25)

| | |
|---|---|
| Estimated Maximum price calculated under the 2018 Determination ($/ET) | **$92,070** |
| Estimated Maximum price calculated under the 2018 Determination ($/developable hectare) | $877,200 |

Note: the price is also adjusted each financial year based on changes in the Consumer Price Index (CPI)

[1] NSW Government 2024-25 Guidelines SCI/SBI and Business Plans (Supplementary Appendix: Forecasting Assumptions), 18 December 2023. In this case, the applicable **planning forecast escalation** is a factor of 1.032. We note this is slightly lower than the March on March CPI All Groups 8 capital cities **price escalation** factor of 1.036 which would have applied if a DSP infrastructure contribution of $850,000 per hectare had been registered with IPART during 2023-24.

Figure 1-1 Components of the Infrastructure Contribution rate (refer to section 5 for calculation detail)




1. Net OPEX = OPEX – revenue. Land tax is included as an operational cost. There is $7.7k of revenue included in the net OPEX calculation.

# 2 Introduction

## 2.1 Infrastructure Contributions and Development Servicing Plans

This Development Servicing Plan (DSP) provides the details of the infrastructure, costs and revenues associated with the proposed Integrated Stormwater Scheme for the Mamre Road precinct. These costs and revenues are then used to calculate the contributions required to deliver these works under the methodology set out by our independent regulator, IPART in their 2018 Determination. The works include stormwater and recycled water services for development to be delivered as part of the Mamre Road Regional Integrated Stormwater Scheme.

Sydney Water's principles for our Stormwater Schemes are that we strive for contributions to be: Certain, Consistent, Efficient, Transparent and Simple. The Principles are available at https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html.

DSPs must include all capital and operating costs as well as expected future revenue associated with the scheme. Costs include land acquisition, infrastructure design and delivery, operations and maintenance, taxation. Revenue includes connected customer stormwater service and recycled water usage charges. The scheme will capture, harvest, treat and reuse stormwater through a recycled water network in order to meet development related waterway health requirements at least cost to the community.

This plan has been exhibited in accordance with exhibition and consultation requirements of the 2018 IPART determination on "Maximum prices for connecting, or upgrading a connection, to a water supply, sewerage, or drainage system. This document was exhibited from 8 January to 20 February 2025, with fourteen submissions received during consultation. Submissions were in the form of email and feedback via social media posts has also been considered. A number of key issues were identified including proposed costs impacts on development feasibility, clarity of scheme design, ongoing stakeholder engagement, environmental considerations, concern about overdevelopment and timing of land acquisition. There were no issues identified which, when considered, required updates to this document. All issues will be carried into the project delivery phase to ensure stakeholder concerns are managed throughout the program lifecycle.

## 2.2 Who pays the Infrastructure Contribution?

As a condition of development consent, the proponent must obtain a Section 73 Compliance Certificate from Sydney Water confirming that satisfactory arrangements for the provision of water-related services to a development have been made. To identify and confirm the necessary arrangements, the proponent must submit to Sydney Water an application for a Section 73 Compliance Certificate.

Upon receiving an application, Sydney Water will investigate the impact a proposed development is likely to have on its systems. Sydney Water will then issue a Notice of Requirements (NoR) under Section 74 of the *Sydney Water Act*, setting out any conditions that must be met (eg, details of works that must be constructed so that services will be available to the development and estimated contributions payable). Infrastructure contributions are payable for all developments that require a Section 73 Certificate and must be paid by the proponent of the development before the Certificate can be issued.

We will assess the impact on the system of any subdivisions at the time of Section 73 application to determine the infrastructure contribution payable for that subdivision. The amount payable will depend on the specific characteristics of the subdivision including potential impact of subsequent permissible development.

For this DSP area, Sydney Water accepted Infrastructure Contribution securities (via a bonding arrangement) ahead of DSP registration to support early development through timely issue of Section 73 Certificates. This arrangement only applied to a small number of cases from 1 January 2024 until the date of DSP registration.

From the date of registration of this plan, all Mamre Road integrated stormwater infrastructure contributions become payable within 30 days from the day the infrastructure contribution invoice is raised:

- For the cases who have already received Section 73 certificates under a bonding arrangement, invoices will be issued as soon as practicable after the DSP registration date.
- For all other development, invoices will be issued prior to release of a Section 73 certificate. The invoice must be paid prior to Section 73 release.

## 2.3 Integrated Stormwater Servicing

This plan details the servicing for development in the precinct to ensure public safety and to mitigate the impact of development on the environment. This includes the regional servicing of trunk drainage, basins, wetlands and other stormwater treatment and distribution infrastructure.

## 2.4 How do I apply the charge to my development?

The infrastructure contribution price is the amount that must be paid by one equivalent tenement (ET). IPART's 2018 determination defines one ET as being equal to the annual total demand of an average detached, single residential dwelling[2]. For the regional integrated stormwater scheme, demand on the system is proportional to land area, regardless of property type because the benefit provided by the system is equal across the catchment, so all properties will pay a contribution in proportion to the developable area of their property.

The total infrastructure contribution payable by any given development equals the base price in the DSP area multiplied by the number ETs for that development. In this catchment area, for stormwater, one ET equals about 0.105 hectare. If Sydney Water receives a Section 73 application for a development and assess that it is located on one hectare of developable land, the development would be for 9.528 ETs (9.528 times the size and demand for a single ET of 0.105 hectare). The estimated base price in the DSP area is $92,070 per ET, so in this example the development would be required to pay $877,200 per development hectare ($92,070 per ET x 9.528 ETs).

For more detail on the calculation of developable area, please refer to Sydney Water's website on "Aerotropolis stormwater development requirements" at https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html .

[2] IPART did not specify a value for 'average demand' in their 2020 retail price determination, we must assume a value when calculating the contribution price for a DSP area. Our approach to estimating average demand is set out in methodology Appendix 7.2 of this report.

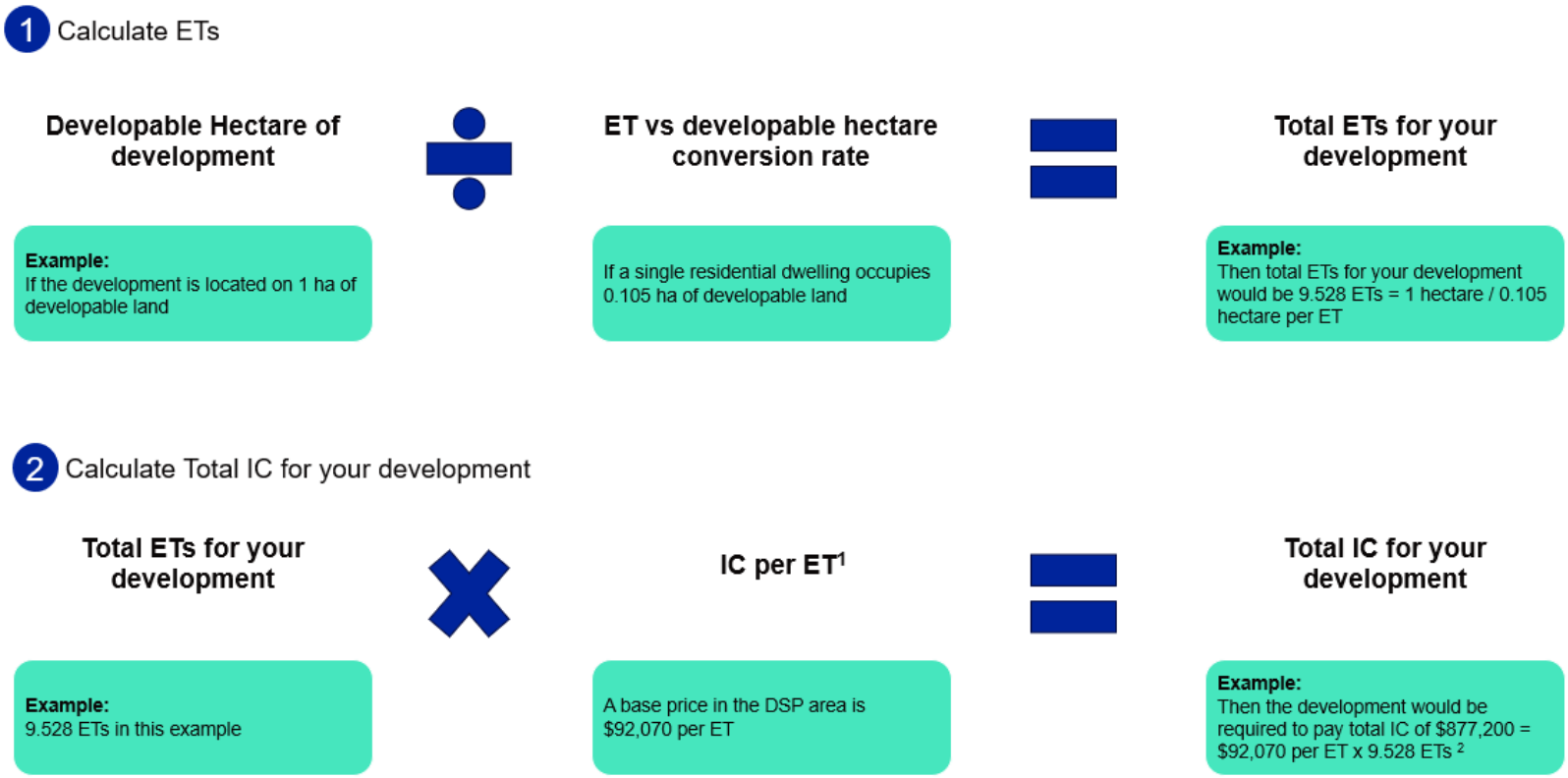



Figure 2-1 Total Infrastructure Contribution (IC) calculation example

We work out the number of ETs in a development based on information supplied to us during the Section 73 process. For non-residential developments, the number of ETs will be assessed based on the expected volumetric demand from the land use (eg, use of drinking water, discharge

of wastewater, and, for stormwater, rainfall runoff during storm events, which is proportional to the developable area of the property). For the Mamre Road precinct, the developable land use types - primarily industrial - were used to estimate a total perviousness for the precinct and an estimated per hectare contribution to the precinct's total runoff. Sydney Water uses the same definition of net developable area used to calculate Special Infrastructure Contributions, this is set out in the Environmental Planning and Assessment (Special Infrastructure Contributions) Determination 2022. Sydney Water's approach is also explained in the Mamre Road and Aerotropolis Integrated Stormwater and Recycled Water: Net Developable Area Fact Sheet. Only the categories of land defined as net developable area attract an infrastructure contribution. This means that although the Mamre Precinct is 1020 hectares, as there are only 754.6 hectares of net developable area, the total incremental costs are divided by 754.6 hectares.

Charging on a net developable area basis allows for distribution of Infrastructure Contributions in proportion to the impact on the integrated stormwater system. This means ETs also reflect the average perviousness across all land use types in the precinct which were estimated using planning benchmarks. The conversion factor between ETs and net developable hectares for the precinct reflects the assumption that one ET has a net developable area of 0.105 hectares. The use of ETs or net developable hectares as the denominator has no effect on the total charge for each development as the contribution remains directly proportional to net developable area of that development.

The contribution price set out in this DSP will apply to all developments requiring a new stormwater connection, where a Section 73 Compliance Certificate is required.

Development may also require a drinking water and wastewater infrastructure contribution to be paid[3]. The method to calculate drinking water and wastewater infrastructure contributions is similar but not identical to how stormwater contributions are calculated. For more details, please see the *How we apply IPART's pricing method* document on the Sydney Water Talk website[4] at https://www.sydneywatertalk.com.au/84904/widgets/403934/documents/257990.

## 2.5 Land to which the plan applies:

This Development Servicing Plan outlines Sydney Water's policy regarding the application of Section 74 of the Sydney Water Act (1994) in relation to the provision of stormwater infrastructure to service the impact of development within the Kemps Creek (Mamre) Catchment SWMAP0075-SW_102, Ropes Creek (Mamre) Catchment SWMAP0076-SW_103 and the Wianamatta South Creek (Mamre) Catchment SWMAP0074-SW_101. These three declared catchments cover the area known as the Mamre Road precinct and can be viewed here:

https://legislation.nsw.gov.au/view/html/inforce/current/sl-2012-0292/maps. The boundary of the DSP is also shown in

[3] Unlike stormwater contributions, drinking water and wastewater contributions will be gradually phased in from 1 July 2024.
[4] These documents also outline that unlike stormwater and recycled water contributions, water and wastewater contributions will be gradually phased in from 1 July 2024.

Figure 4-1.

## 2.6 Integrated Stormwater Principles and Framework

To service Mamre Road precinct, a stormwater scheme was detailed identifying infrastructure and land to be owned and/or managed by Sydney Water consistent with the Stormwater Management Framework[5]. A draft of this framework and principles was publicly exhibited to government agencies, councils, development industry, landholders, first nations representatives and the general public in June-July 2022 before being finalised with two major elements:

- The 16 Stormwater Scheme Principles identified in the Stormwater Management Framework (listed in section 7.2.6)
- The Preliminary Drainage Management and Delivery arrangements by Asset as identified in the Stormwater Management Framework

In accordance with Principle 5, the Mamre Road Precinct Integrated Stormwater scheme details infrastructure to service development that will achieve the minimum standards efficiently in terms of cost and performance, while protecting cultural, environmental, and other waterway values. Enhancement works (recreation improvement works e.g., shelters, lighting and BBQs) beyond the required minimum standards undertaken by developers and/or local Council will not be funded by the DSP.

## 2.7 Public Purpose

The Mamre Road Precinct Integrated Stormwater Scheme provides assets and services for the benefit of the public, mitigating the impact, and facilitating the benefits, of development to meet NSW Government requirements and community expectations. It has been prepared in accordance with the requirements of:

- The State Environmental Planning Policy (Industry and Employment) 2021
- Mamre Road Precinct Development Control Plan 2021. Particularly in relation to requirements within section 2.4 including controls 1-2 regarding meeting stormwater quality and flow targets on behalf of development sites, controls 10-15 regarding naturalised drainage outcomes and control 9 regarding harvested water purple pipe scheme to meet above mentioned targets.
- The Recognise Country: Guidelines for Development in the Aerotropolis
- Review of water sensitive urban design strategies for Wianamatta-South Creek. NSW Department of Planning and Environment 2022

[5] *Stormwater Management Framework for Aerotropolis and Mamre Road Precincts. December 2022.*

- Technical Guidance for achieving Wianamatta South Creek stormwater management targets. NSW Department of Planning and Environment 2022
- South Creek Floodplain Risk Management Plan. Penrith City Council
- Consultation outcomes from stakeholders undertaken by Sydney Water from 2022.

By meeting the requirements and directions of these documents the stormwater scheme provides a range of benefit to the future community allowing development to progress with flood resilient and safe urban amenity, improvement of waterway health and protection of the environment.

## 2.8 Design parameters and assets

The drainage networks in the precincts will be managed in a collaborative partnership between Sydney Water and Penrith City Council. Sydney Water manages drainage and stormwater infrastructure for catchments greater than 15Ha, Penrith City Council manages minor and road drainage as well as set planning controls for flood plain risk as per the NSW Flood Risk Management Manual (2023). Waterways and drainage lines in the precincts are key to recognising Country, providing amenity and recreation outcomes, ensuring health and public safety, as well as achieving ecological waterway health goals.

Co-ordinated drainage management via the integrated water cycle management approach is in line with the NSW Government's Greater Sydney Water Strategy and the waterway health objectives and targets for the Wianamatta Catchment (DPE 2022). This is principally documented in the Mamre Road Precinct Integrated Stormwater Scheme that was finalised in December 2023 and can be found on Sydney Water's website https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html and is available on the Sydney Water Aerotropolis Stormwater webpage at https://www.sydneywatertalk.com.au/aerostormwater. The associated developer charge spreadsheet outlines the categories of costs that have been identified for Mamre Road:

- Land including stamp duty: the land acquisition cost and associated stamp duty for areas identified for purchase.
- Land Tax: Land tax is liable for the area of land acquired.
- Planning: Initial work establishing the Stormwater Scheme.
- Distribution Assets: Reservoir, pipes, pumps and boosters etc.
- Construction Management: temporary site facilities, erosion and sediment control, pre and post construction survey and inspections. Traffic management. Construction signage. Geotechnical supervision etc.
- Concept Design: Asset based concept designs.

- Detailed design: Designs used for construction.
- Trunk Drainage: Earth works, rock stabilisation as required and revegetation.
- Diversions and wetland inlets: Headwalls, small weirs and pipes that divert water into the wetlands.
- GPTs and access: Gross pollutant traps and maintenance access driveways/paths.
- Wetlands ponds and outlets: The bulk of wetland/pond construction including earthworks, vegetation, pipes, pits, rockwork etc.
- Disposal of excess spoil: Allowance for removal of excess spoil (that can't be reused on site) offsite to landfill.
- Stormwater collection mains: Pipes that collect stormwater for harvesting from all ponds.
- Stormwater pumps and rising mains: Pumps and pipes to take harvested water to the final treatment facility.
- Stormwater treatment: Final treatment to ensure required water quality for non-potable uses including storage, filtration, UV and chlorination.

## 2.9 Relationship to other Agencies' Contribution Charges

The Sydney Water Regional Integrated Stormwater Infrastructure Contribution applies in conjunction with two other relevant infrastructure contributions:

- Local infrastructure contributions (LIC) levied in accordance with Section 7.11 and 7.12 of the *NSW Environmental Planning and Assessment Act 1979* (EP&A Act). These contributions are levied by the relevant local council and cover local infrastructure and amenity provisions such as local roads and public open space. Stormwater infrastructure would typically be covered by a LIC in areas where Council is the stormwater authority. For Mamre Road – where Sydney Water is the Regional Stormwater Authority, stormwater infrastructure is covered by Sydney Water's DSP and is not included in Penrith City Council's LIC.
- Special Infrastructure Contributions (SIC) levied by the State in accordance with Section 7.24 of the EP&A Act. The SIC covers the delivery or augmentation of regional infrastructure and amenity provisions such as regional transport infrastructure, affordable housing and biodiversity conservation. Water services (including stormwater) are explicitly excluded from the SIC under the EP&A Act.

The NSW Department of Planning, Housing and Infrastructure (DHPI) has oversight of both the SIC and the LIC to ensure that there is no overlap between the two charges. Sydney Water, DPHI and Penrith City Council have also worked together to reconcile developer charges across the three contributions to ensure there is no duplication.

# 3 Other issues considered in preparing this plan

## 3.1 Application of IPART deemed efficient scheme costs

Sydney Water has prepared costs based on the current level of scheme design and independent cost estimation advice. Sydney Water's currently estimated costs are higher than those deemed efficient by IPART's Mamre Road Stormwater Scheme Review. Sydney Water will continue to refine the real costs of the scheme as design and delivery progresses in partnership with developers. To ensure that the DSP represents only costs deemed efficient by IPART, an efficiency factor has been applied to the capital and operating costs included in the infrastructure contribution calculation.

Sydney Water has calculated the Infrastructure Contribution for integrated stormwater servicing in the Mamre Road precinct as:

**$877,200 per developable hectare (FY2025)**

This rate matches the IPART deemed efficient cost of $850,000 per developable hectare ($FY2024) for the scheme escalated to the appropriate financial year for collection. Infrastructure Contributions charges are inflated annually in line with the Consumer Price Index (CPI).

Sydney Water is committing to driving efficiencies during project delivery and has worked with IPART on the most meaningful way to present these. IPART has provided an updated template model which allows for a "Future efficiency adjustment to the maximum price". As the efficiency adjustment is to be applied to the total costs included in the infrastructure contribution, this allows Sydney Water flexibility in driving efficiencies across all infrastructure.

The efficiency adjustment that Sydney Water has applied to our current estimates to achieve the deemed efficient maximum price is 22.83%

The costs for delivery, land acquisition and operation of individual assets is subject to variation as costs estimates mature. No individual asset cost represents an amount reimbursable to delivery partners. The real costs of asset delivery will be determined through appropriate procurement processes.

# 4 Mamre Road IWCM Development Servicing Plan area

## 4.1 Systems covered by this DSP

The boundary of this DSP area (

Figure 4-1) covers only one regional integrated stormwater system which is proposed to service the Mamre Road Precinct.

On 25 March 2022, the NSW Government announced the appointment of Sydney Water as the Regional Stormwater Authority for the Western Sydney Aerotropolis, including the Mamre Road Precinct. This means Sydney Water is responsible for delivering, managing and maintaining the regional stormwater network along with our drinking water, wastewater and recycled water networks.

The systems covered in this DSP include all those identified in the Mamre Road Precinct Stormwater Scheme Plan including assets identified for the distribution of harvested stormwater to the precinct.

The area covered by the proposed regional integrated stormwater system is approximately 1020.7 hectares, which includes 754.63 hectares of developable land. The definition of developable land is available at https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html . The DSP area has been zoned predominately for industrial purposes (IN1), aiming to meet industrial demand in Western Sydney. As a result, population growth is not anticipated in the area due to focus on industrial development, with the Integrated Stormwater Scheme focusing on servicing demand from the industrial precinct.

The Integrated Stormwater Scheme Plan for the Mamre Rd Precinct has been published, and can be found on Sydney Water's website https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html The Scheme Plan is a conceptual layout of infrastructure, sizing and location that will be delivered within the Precinct.

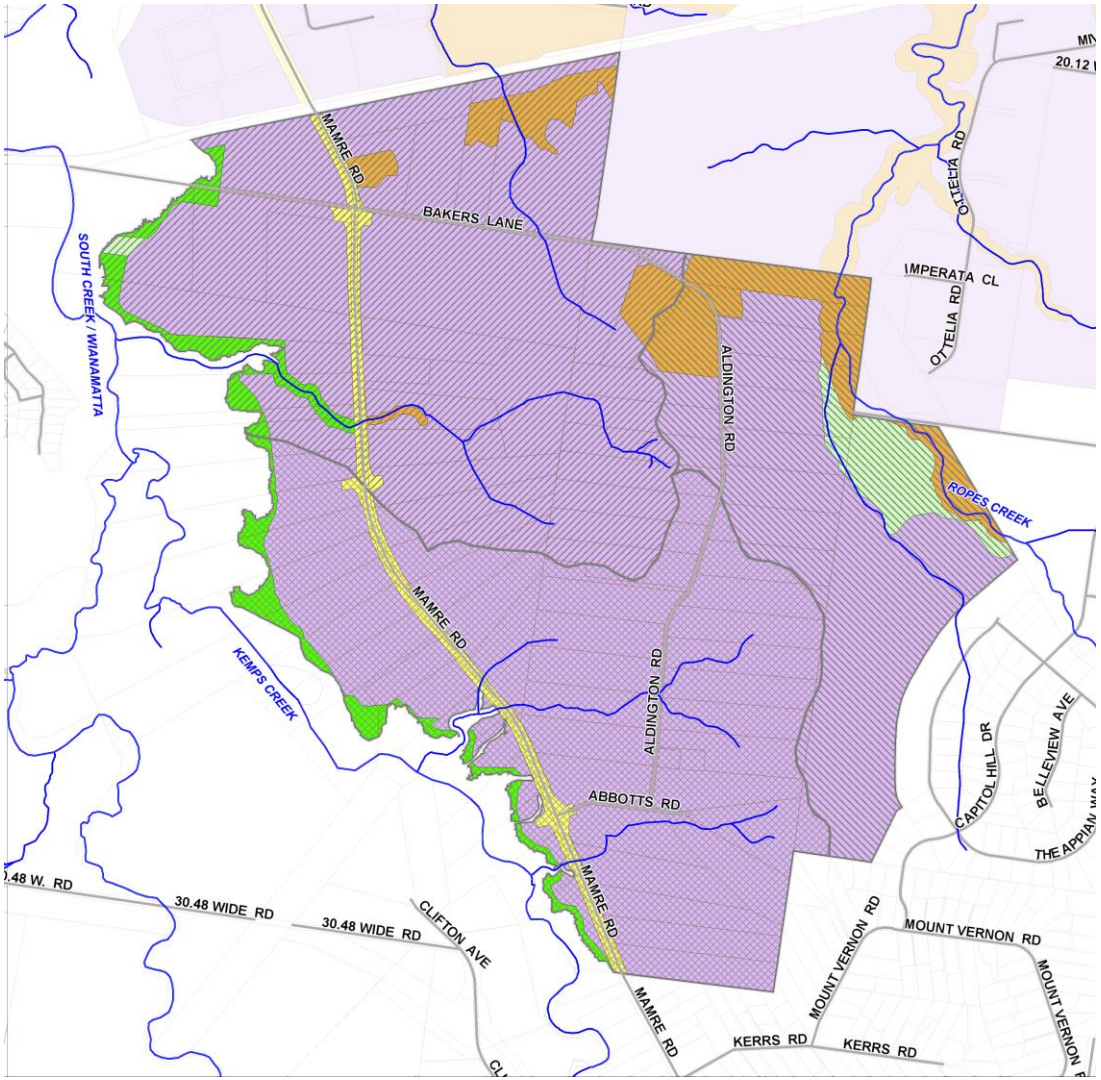



Figure 4-1 Mamre Road Stormwater Development Servicing Plan Area

## 4.2 Future development in the DSP area

To calculate a stormwater infrastructure contribution price for Mamre Road area, the forecast of future investment in new infrastructure and assets reflects the expected timing of development. The forecast is based on the DPHI growth forecast, Sydney Water growth intelligence data and consultation with developers. All growth is non-residential. Asset capacity is typically delivered in large blocks, so development can sometimes continue to connect to a system for many years beyond the investment horizon. In this case, in line with our developer delivered model, we have forecast assets to be delivered in sequence with development. This means that the system will be largely complete once all development has occurred in 2035, with only renewal and operating costs forecast beyond this time (see Figures 4-2,Figure 4-3 and Table 2).

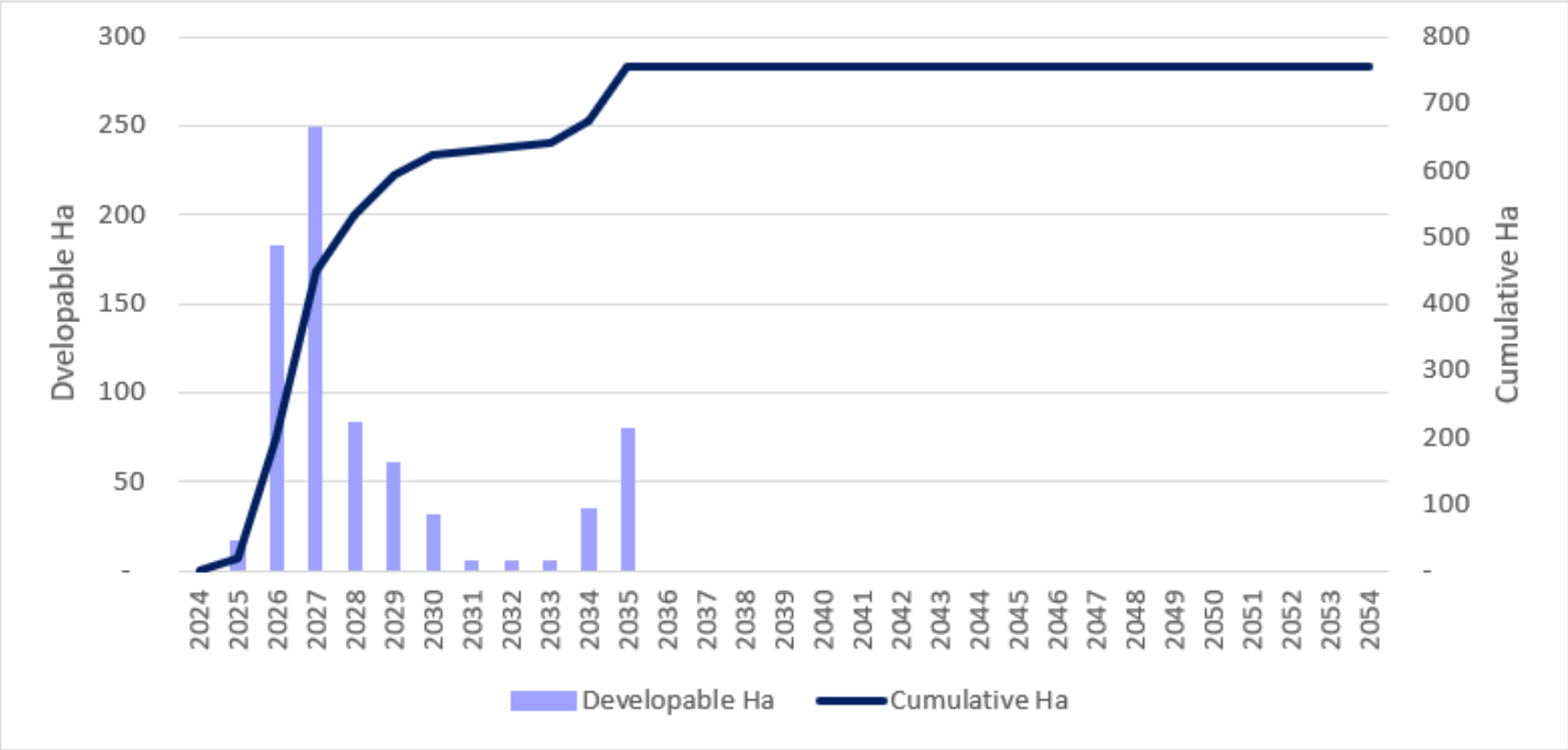



Figure 4-2 Estimated future Development (developable hectares) in the Mamre Rd Stormwater DSP Area

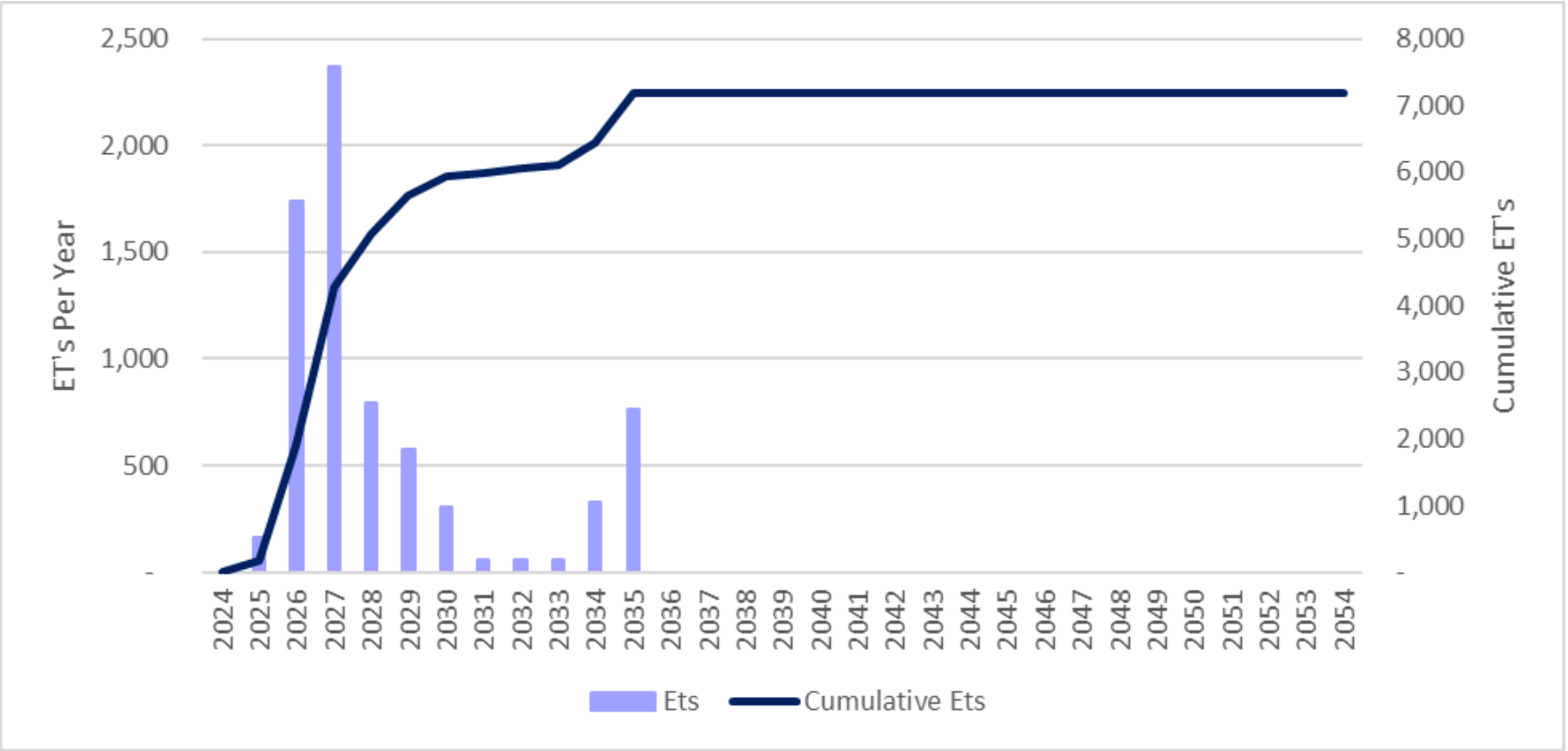



Figure 4-3 Estimated future Development in Equivalent Tenements in the Mamre Rd Stormwater DSP Area

Table 2 Estimated future Development in in the Mamre Rd Stormwater DSP Area

| | 2024-25 | 2025-26 | 2026-27 | 2027-28 | 2028-29 | 2029-30 | 2030-31 | 2031-32 | 2032-33 | 2033-34 | 2034-35 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **New development - NDA (hectares)** | 17 | 183 | 249 | 83 | 60 | 32 | 6 | 6 | 6 | 34 | 80 |
| **New development (ETs)** | 161 | 1,741 | 2,369 | 792 | 575 | 301 | 54 | 54 | 54 | 326 | 761 |

## 4.3 Future assets and land acquisition providing services to the DSP area

This section shows the total cost of future assets (Figure 4-4) to be constructed to provide services to new development. The table below is inclusive of capital asset renewal, hence the continued investment after the DSP area is fully developed. No capital renewal beyond 2054 (30-year DSP period) has been included to align with the 30-year assumption used for revenue and operating costs.

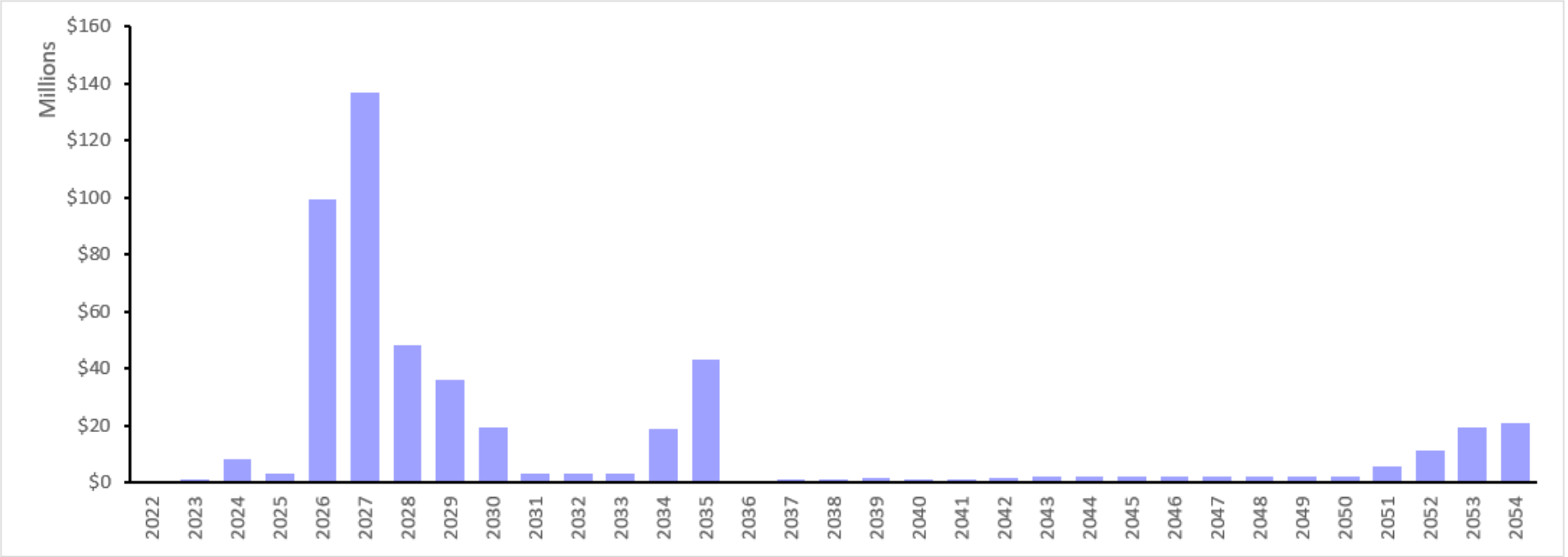



Figure 4-4 Estimated future Assets ($FY25) in the Mamre Road Stormwater DSP Area

NB. This graph indicates the asset value after the efficiency adjustment has been applied.

This section shows the total cost of land to be acquired (Figure 4-5) to provide services to new development. Sydney Water has adopted some key assumptions for land acquisition set out below (Table 4-6). These values are estimates based on information available to Sydney Water at the date of this document. The cost of land acquisition will be determined at the time of acquisition and in accordance with the Land Acquisitions (Just Terms Compensations) Act 1991. It may be that Sydney Water pays a different amount to that set out below as it subject to the individual outcomes of each landowner affected by the scheme, or changes to government policies, and other matters which may occur before acquisitions occur.  As a result, the assumptions in Table 4-6 may change over time.

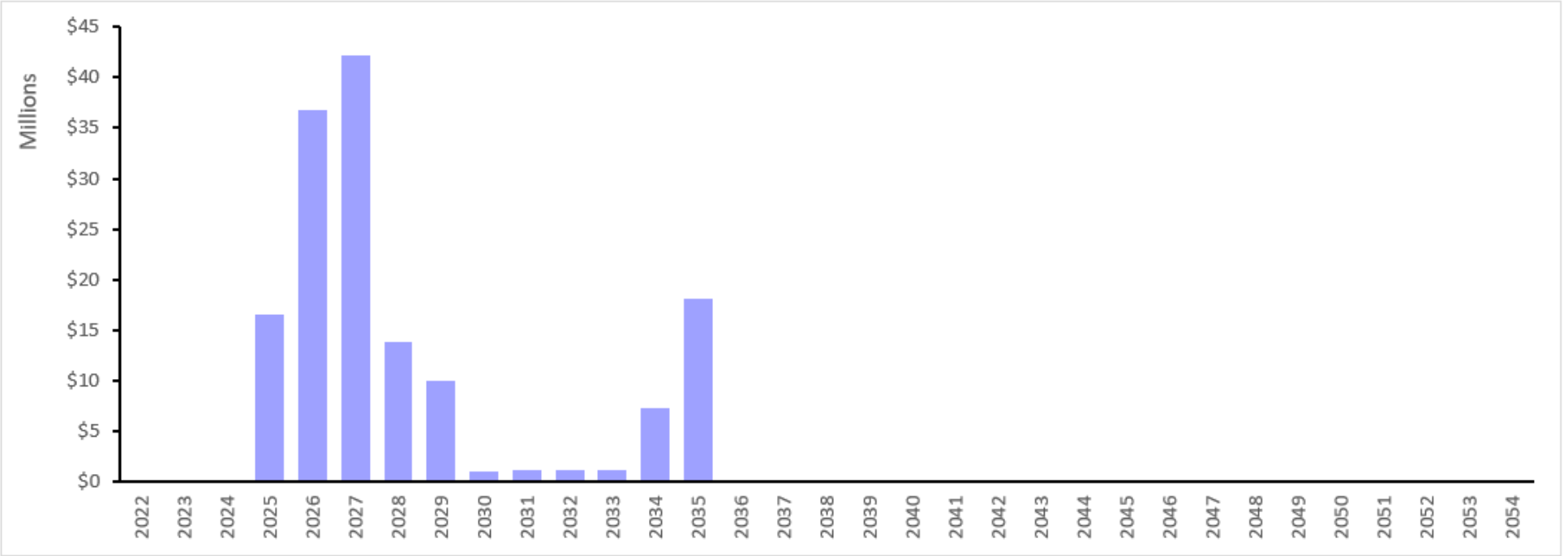



Figure 4-5 Estimated Future Land Acquisition ($FY25) in the Mamre Road stormwater DSP Area

NB. This graph indicates the land cost after the efficiency adjustment has been applied.

Table 4-6 Key land acquisition assumptions

| Key land acquisition assumptions | |
|---|---|
| **Acquisition area** | 66.30ha<br>- Developable land: 9.44ha<br>- Constrained land: 55.43ha<br>- Reservoir Land 1.42ha<br>(Estimated land before efficiency adjustment) |
| **Land price & growth rate** | |
| - Developable land<br>This rate is assumed to apply to land which is zoned IN1 or RE2 | Valuation: $650 per square metre<br>Growth Rate: CPI +4% |
| - Constrained land<br>This rate is assumed to apply to land which is zoned ENZ, C2 or RE1 | Valuation: $70 per square metre<br>Growth Rate: CPI +1.5% |
| **Land acquisition timing** | 86% of land is acquired within the first 10 years of development. Land acquisition timing is currently assumed to enable the rate of growth of development. |

# 5 Infrastructure contribution calculation

The main elements of IPART's pricing method are shown in Figure 5-1. The rest of this section presents the results of applying this method.

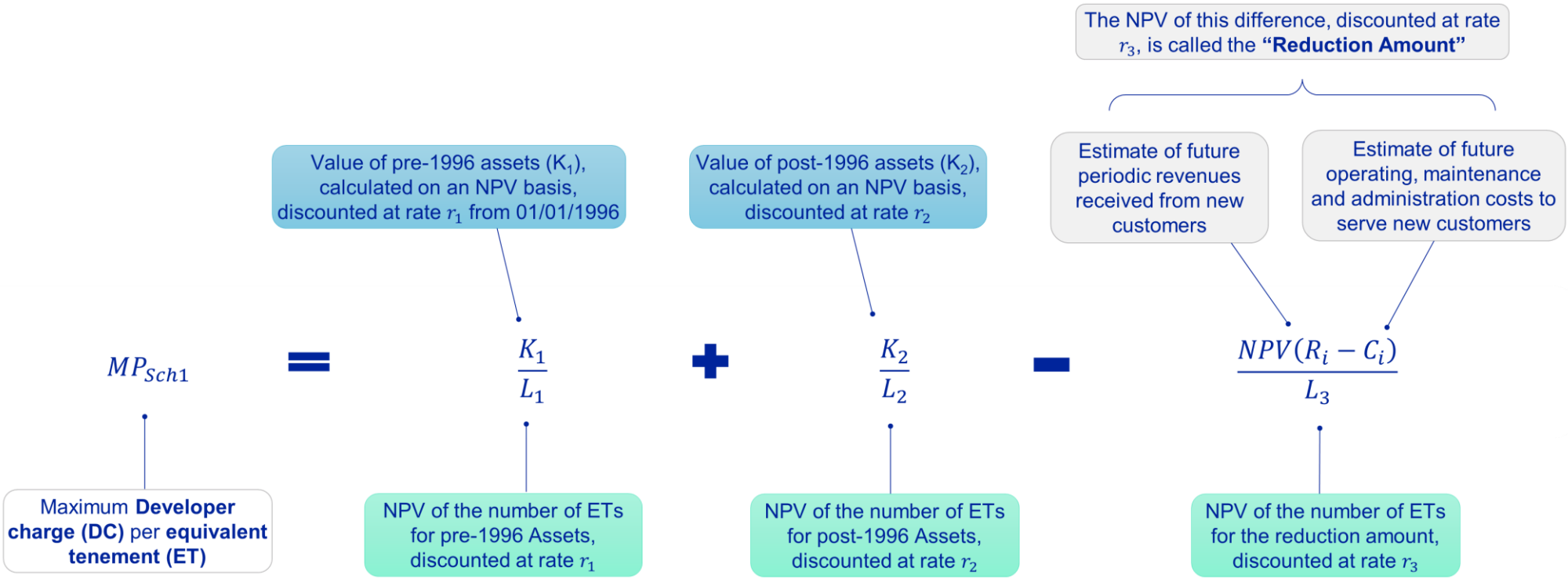



Figure 5-1 IPART's infrastructure contribution pricing method

**Note: for this DSP, one ET = 0.105 hectares, so, each hectare will be charged as 9.528 ETs.**

## 5.1 Key inputs for this DSP

This section sets out assumptions used in the calculation of the infrastructure contribution price. Further detail on the approach, including assumed retail prices and escalation rates, are set out in the methodology section (Appendix 7.2) of this document.

Table 5-1 Inputs to the infrastructure contribution calculation model

| Input parameter | Value |
|---|---|
| Base Year | 2024-25 |
| Real pre-tax discount rate for pre-1996 values (K1, L1) | 3.0% |
| Real pre-tax discount rate for post-1996 values (K2, L2, L3) | 4.2% |
| Relationship between hectares of developable land and equivalent tenements (ETs) | 9.528 ETs per hectare |

## 5.2 Infrastructure contribution price elements

Table 5-2 Charge for pre-1996 assets

| | |
|---|---|
| (A) Present value of pre-1996 assets ($K_1$) | $0 |
| (B) Present value of equivalent tenements ($L_1$) | 6,299 |
| (C) Capital charge for pre-1996 assets (A) / (B) | $0 |

Table 5-3 Charge for future assets

| | Un-commissioned | Commissioned |
|---|---|---|
| (A) Present value of post-1996 assets ($K_2$) | $522,295,610 | $9,864,442 |
| (B) Present value of equivalent tenements ($L_2$) | 6,299 | 6,299 |
| Capital charge for assets (A) / (B) | $82,919 / ET (which is $790,016 / developable hectare) | $1,566 / ET (which is $14,921 / developable hectare) |

Table 5-4 Net operating result

| | |
|---|---|
| (A) Present value of revenue (R) | $63,276,301 |
| (B) Present value of operating costs (C) | $111,051,011 |
| (C) Present value of ETs ($L_3$) | 6,299 |
| Net operating result (A) + (B) / (C) | -$7,585 / ET (which is -$72,263 / developable hectare) |

## 5.3 Total infrastructure contribution price

The following table shows the components of the infrastructure contribution calculation.

Table 5-5 Components of the infrastructure contribution price, $ per ET and per developable hectare ($2024-25)

| (A) Stormwater headworks | (B) Pre-1996 assets | (C) Post 1996 assets | (D) Net operating result | (A) + (B) + (C) – (D) Infrastructure contribution |
|---|---|---|---|---|
| $0 | $0 | $84,485 / ET<br>($804,936 / developable hectare) | -$7,585 / ET<br>(-$72,263 / developable hectare) | $92,070 / ET<br>($877,200 / developable hectare) |

The above negative net operating result is due to operating costs exceeding forecast revenue, as such, this result increases rather than decreases the contribution. See section 7.2.18 for more detail.

# 6 Asset Description

## 6.1 Stormwater Assets

The stormwater assets below are to provide:

- Stormwater conveyance - to collect and safely convey stormwater from catchments greater than 15ha in size to the regional basins and waterways.
- Stormwater treatment - to improve the quality of the stormwater to meets the Mamre Road Development Control Plan (DCP) requirements for water quality.
- Stormwater harvesting - to collect/harvest the treated stormwater to provide to the recycled water network to meet the DCP requirements for flow.

Due to the design of the integrated scheme, assets are required to service the whole precinct rather than a distinct group of equivalent tenements. Many of the assets will be delivered over multiple years as development occurs, so the commissioning year is spread across a range of years.

The below costs represent the total cost of delivering the asset which has been attributed to the Infrastructure Contribution calculation. This includes all costs of planning, construction and establishment and industry standard risk based contingencies.

**Asset Costs in Table 6-1 not to be used to estimate reimbursement outcomes for developer delivered assets.**

These costs do not reflect the complexity of constraints and optimisations that will be identified via the detailed design and in no way constitute an offer of reimbursement. Please refer to the Stormwater Developer Works Policy for details regarding the processes to estimate and undertake works on Sydney Water's behalf and the reimbursement agreement process. https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html

Table 6-1 Stormwater Asset Description

| No. | Component | Unit | Quantity | Rate | Total Cost (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|
| **Stormwater mains** | | | | | | | |
| **1.1** | 1m deep | m | 523 | $2,800.03 | $1,464,415.45 | Developer | 2024/25 - 2034/35 |
| **1.2** | 2m deep | m | 1,553 | $4,033.92 | $6,264,674.43 | Developer | 2024/25 - 2034/35 |
| **1.3** | 3m deep | m | 752 | $5,828.01 | $4,382,662.60 | Developer | 2024/25 - 2034/35 |
| **1.4** | 4m deep | m | 1,025 | $7,734.18 | $7,927,532.14 | Developer | 2024/25 - 2034/35 |
| **1.5** | 5m deep | m | 489 | $9,416.24 | $4,604,540.12 | Developer | 2024/25 - 2034/35 |
| **1.6** | 6m deep | m | 45 | $11,210.38 | $504,466.89 | Developer | 2024/25 - 2034/35 |
| | **Total Main** | m | **4,387** | **$5,732.46** | **$25,148,291.63** | | |
| **Stormwater pits** | | | | | | | |
| **1.7** | 1m deep | item | 3 | $16,960.40 | $50,881.21 | Developer | 2024/25 - 2034/35 |
| **1.8** | 2m deep | item | 31 | $19,155.83 | $593,830.70 | Developer | 2024/25 - 2034/35 |
| **1.9** | 3m deep | item | 25 | $21,351.26 | $533,781.39 | Developer | 2024/25 - 2034/35 |
| **1.10** | 4m deep | item | 24 | $23,546.68 | $565,120.38 | Developer | 2024/25 - 2034/35 |
| **1.11** | 5m deep | item | 17 | $25,742.11 | $437,615.85 | Developer | 2024/25 - 2034/35 |
| **1.12** | 6m deep | item | 14 | $27,937.54 | $391,125.50 | Developer | 2024/25 - 2034/35 |
| | **Total Pit** | | **114** | **$22,564.52** | **$2,572,355.03** | | |
| | **Total Main and Pit** | | | | **$27,720,646.66** | | |
| **Trunk drainage** | | | | | | | |
| **2.1** | 10m wide | m | 2,940 | $331.98 | $976,030.74 | Developer | 2024/25 – 2030/31 |
| **2.2** | 20m wide | m | 16,242 | $2,591.96 | $42,098,143.60 | Developer | 487x 2024/25 |
| | | | | | | | 6010x 2025/26 |
| | | | | | | | 5685x 2026/27 |
| | | | | | | | 1624x 2027/28 |
| | | | | | | | 650x 2028/29 |
| | | | | | | | 1787x 2034/35 |
| **2.3** | 25m wide | m | 4,975 | $3,173.48 | $15,787,182.78 | Developer | 896x 2025/26 |
| | | | | | | | 1244x 2026/27 |

| No. | Component | Unit | Quantity | Rate | Total Cost (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|
| | | | | | | | 746x 2027/28 |
| | | | | | | | 348x 2028/29 |
| | | | | | | | 249x 2029/30 |
| | | | | | | | 498x 2030/31 |
| | | | | | | | 249x 2032/33 |
| | | | | | | | 249x 2033/34 |
| | | | | | | | 498x 2034/35 |
| **2.4** | 30m wide | m | 1,400 | $3,527.53 | $4,940,223.19 | Developer | 140x 2025/26 |
| | | | | | | | 420x 2026/27 |
| | | | | | | | 70x 2027/28 |
| | | | | | | | 210x 2029/30 |
| | | | | | | | 210x 2031/32 |
| | | | | | | | 140x 2032/33 |
| | | | | | | | 140x 2033/34 |
| | | | | | | | 70x 2034/35 |
| **2.5** | 40m wide | m | 980 | $5,998.87 | $5,878,896.07 | Developer | 2025/26 – 2026/27 |
| | **Total** | | **26,537** | **$2,625.78** | **$69,680,476.38** | | |
| **Basins and wetlands** | | | | | | | |
| **5** | Basin 1 | m2 | 16,654 | $372.78 | $6,208,313.96 | SWC | 2027/28 – 2028/29 |
| **4.1** | Basin 2 | m2 | 59,635 | $207.08 | $12,349,262.60 | Developer | 2025/26 |
| **4.2** | Basin 3 | m2 | 22,271 | $235.37 | $5,241,822.23 | Developer | 2025/26 |
| **4.3** | Basin 4 | m2 | 61,245 | $132.61 | $8,121,994.17 | SWC or Developer | 2025/26 |
| **4.4** | Basin 6 | m2 | 7,459 | $347.59 | $2,592,659.71 | Developer | 2025/26 |
| **4.5** | Basin 7a | m2 | 27,794 | $432.50 | $12,020,813.20 | Developer | 2025/26 |
| **4.6** | Basin 7b | m2 | 59,293 | $214.74 | $12,732,610.32 | Developer | 2025/26 |
| **4.7** | Basin 9 | m2 | 66,336 | $278.55 | $18,477,985.77 | Developer | 2026/27 |
| **4.8** | Basin 12 | m2 | 31,752 | $260.25 | $8,263,513.29 | Developer | 2026/27 |
| **4.9** | Basin 13 | m2 | 27,542 | $263.81 | $7,265,819.52 | Developer | 2026/27 |

| No. | Component | Unit | Quantity | Rate | Total Cost (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|
| **4.10** | Basin 14 | m2 | 53,628 | $267.09 | $14,323,281.58 | Developer | 2026/27 |
| **4.11** | Basin 16 | m2 | 9445 | $320.64 | $3,028,414.59 | Developer | 2026/27 |
| **4.12** | Basin 17 | m2 | 21,237 | $263.77 | $5,601,608.51 | SWC or Developer | 2026/27 |
| **4.13** | Basin 18 | m2 | 9,713 | $343.68 | $3,338,166.63 | SWC or Developer | 2027/28 |
| **4.14** | Basin 19 | m2 | 13,216 | $307.10 | $4,058,625.23 | SWC or Developer | 2026/27 |
| **4.15** | Basin 22 | m2 | 17,564 | $321.34 | $5,643,960.87 | Developer | 2033/34- 2034/35 |
| **4.16** | Basin 23 | m2 | 27,354 | $284.07 | $7,770,413.81 | Developer | 2033/34- 2034/35 |
| **4.17** | Basin 24 | m2 | 12,575 | $318.43 | $4,004,253.99 | Developer | 2033/34- 2034/35 |
| **4.18** | Basin 25 | m2 | 8,385 | $294.34 | $2,468,001.95 | Developer | 2026/27 |
| **4.19** | Basin 26 | m2 | 25,383 | $248.83 | $6,316,023.33 | Developer | 2025/26 |
| **4.20** | Basin 28 | m2 | 14,696 | $304.23 | $4,470,994.78 | Developer | 2025/26 |
| **4.21** | Basin 29 | m2 | 10,786 | $278.33 | $3,002,111.52 | Developer | 2025/26 |
| **4.22** | Basin 30 | m2 | 33,720 | $384.28 | $12,958,078.25 | Developer | 2034/35 |
| **4.23** | Basin 31 | m2 | 61,875 | $202.91 | $12,554,819.74 | Developer | 2034/35 |
| | **Total** | | **699,558** | | **$182,813,549.53** | | |
| **Other** | | | | | | | |
| | Spoil | m3 | 800,000 | $110.99 | $88,793,130.71 | Developer | 2025/26 – 2034/35 |
| | Water quality monitoring | N/A | N/A | N/A | $1,808,683.20 | SWC or Developer | 2025/26 – 2034/35 |
| | 24 month maintenance | N/A | N/A | N/A | $1,808,683.20 | SWC or Developer | 2025/26 – 2034/35 |
| | | | | | **$92,410,497.11** | | |

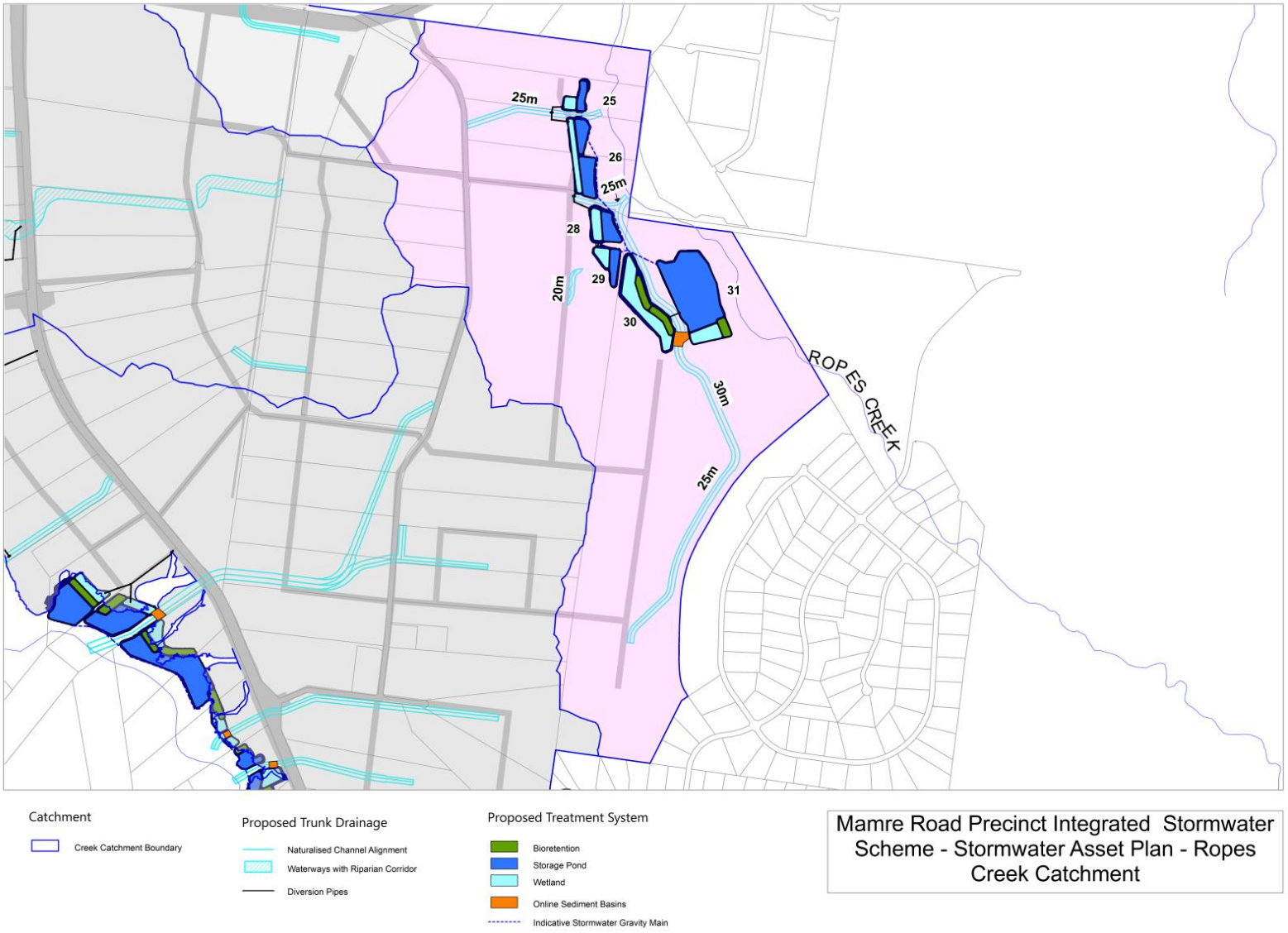



Figure 6.1.1 Stormwater assets in Mamre Road Precinct Ropes Creek catchment

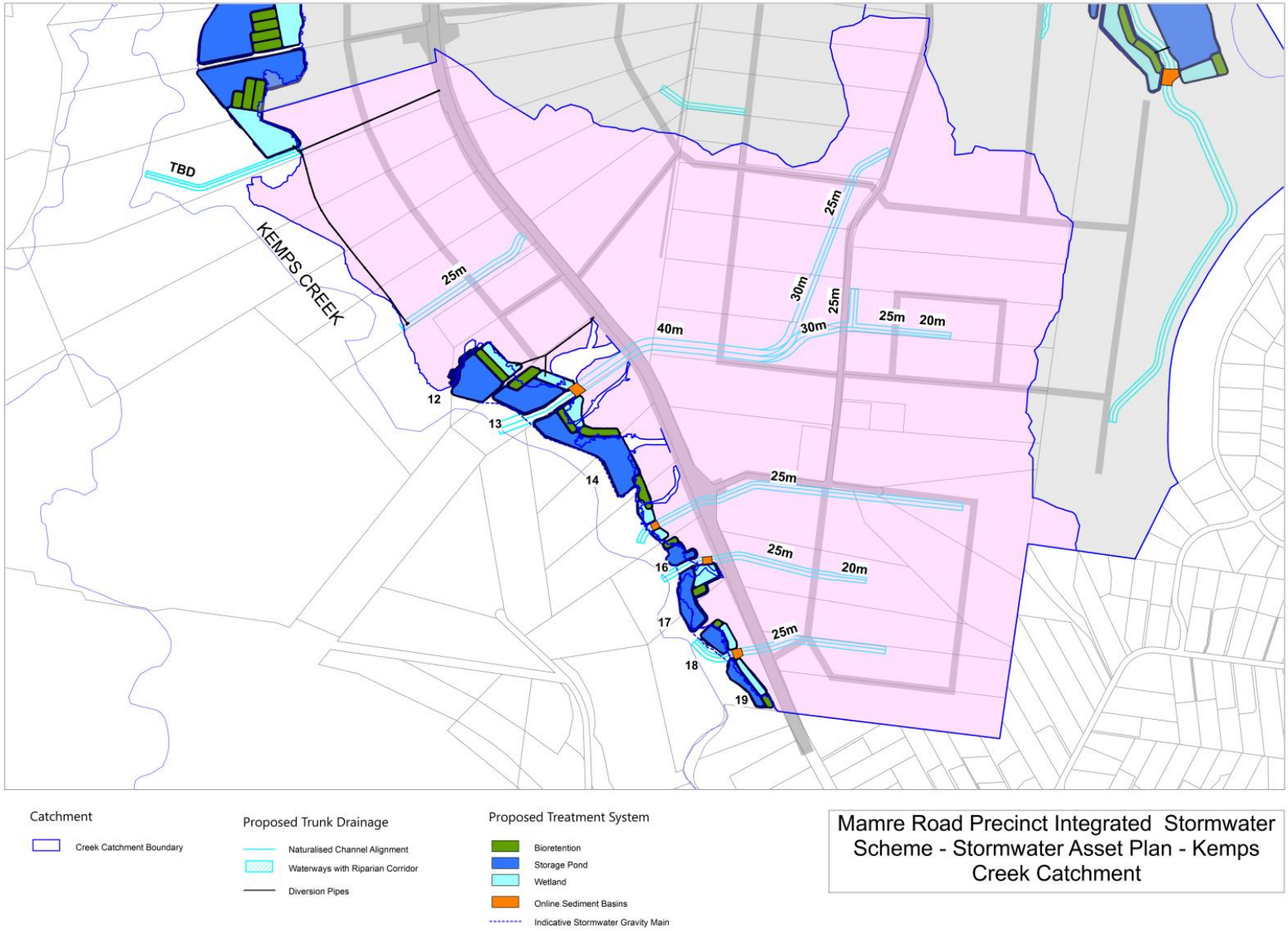



Figure 6.1.2 Stormwater assets in the Mamre Road Precinct Kemps Creek catchment

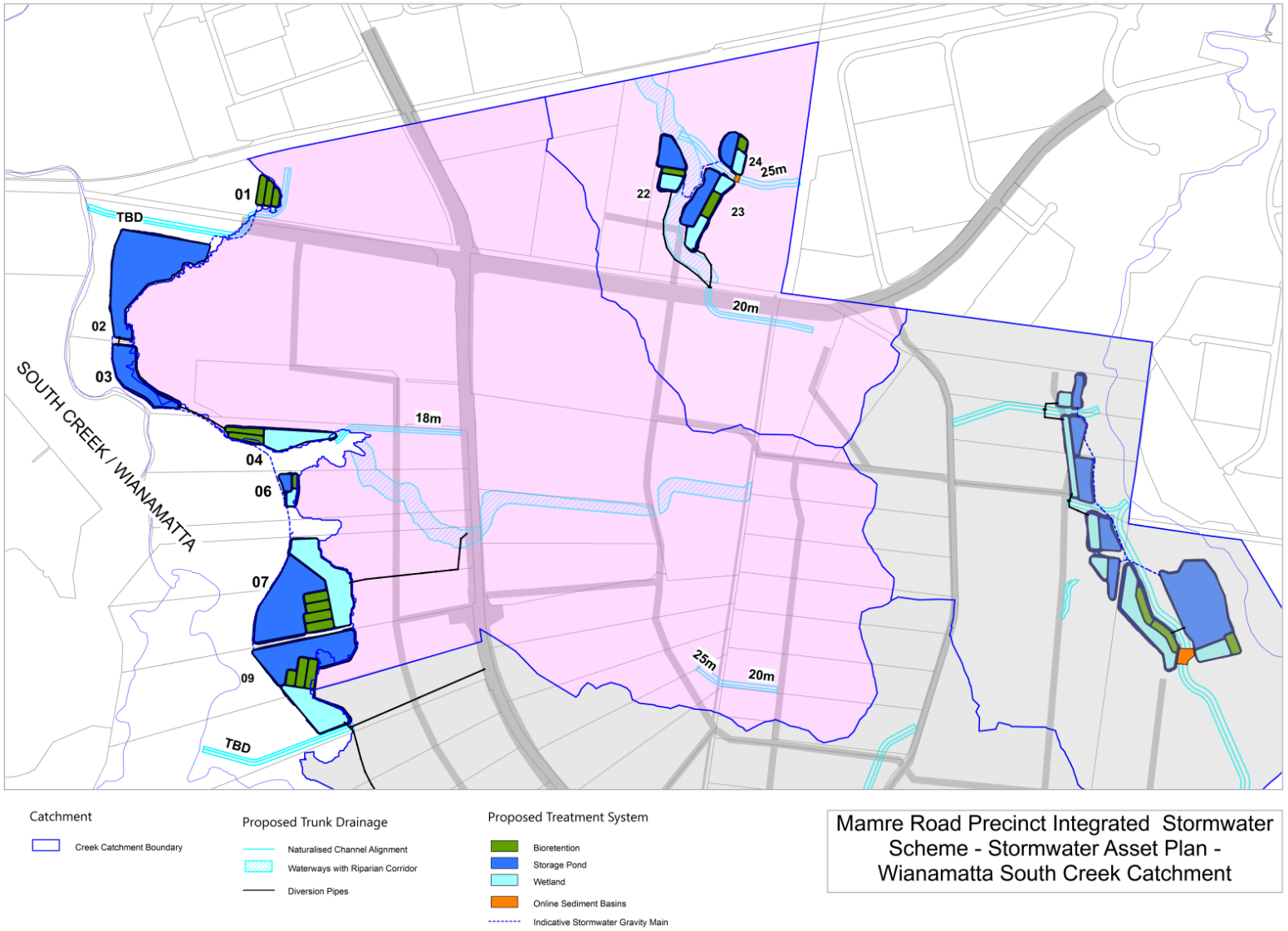



Figure 6.1.3 Stormwater assets in the Mamre Road South Creek catchment

## 6.2 Recycled Water Assets

The Recycled Water assets below are to:

- Allow the stormwater to be harvested and used to meet the Wianamatta water quantity targets.
- Ensure the stormwater is fit for purpose for recycled water use (final treatment and disinfection).
- Ensure there is always a recycled water supply for when stormwater is not available by providing a connection to the AWRC and potable water supply.
- Ensure the recycled water can be distributed to all properties within the precinct.

Due to the design of the integrated scheme, assets are required to service the whole precinct rather than a distinct group of equivalent tenements.

Table 6-2 Recycled Water Asset Description

| Item | Description | Details | Qty | Units | Rate | Total Costs (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|---|
| **1** | **Recycled Water Transfer** | | | | | | | |
| **1.01** | RW Transfer Main within AWRC | DN450 pipeline | 200 | m | $2,894 | $578,712 | SWC | 2025/26 – 2029/30 |
| **1.02** | RW Reservoir within AWRC | 3 ML in USC AWRC Site | 3 | ML | $1,574,667 | $4,724,001 | SWC | 2025/26 – 2029/30 |
| **1.1** | RW Pump Station (to Balance Tank) at USC AWTP | 75L/s @ 100m head | 1 | Item | $2,065,824 | $2,065,824 | SWC | 2025/26 – 2029/30 |
| **1.2** | RW Transfer Main from AWRC | DN375 pipeline | 4,000 | m | $2,269 | $9,075,871 | SWC | 2025/26 – 2029/30 |
| **1.4** | Critical control points | | 1 | Item | $125,589 | $125,589 | SWC | 2025/26 – 2029/30 |

| Item | Description | Details | Qty | Units | Rate | Total Costs (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|---|
| **1.5** | IICATS control units and logics | | 1 | Item | $234,432 | $234,432 | SWC | 2025/26 – 2029/30 |
| | **Subtotal** | | | | | **$16,804,429** | | |
| **2** | **Stormwater Transfer** | | | | | | | |
| **2.1** | SW Transfer Pump Station - South West | 75L/s @ 79m (Series Submersible) | 1 | Item | $8,748,523 | $8,748,523 | SWC | 2025/26 – 2029/30 |
| **2.2** | SW Rising main - South West | DN300 pressure pipeline | 2,529 | m | $2,915 | $7,371,993 | SWC or Developer | 2025/26 – 2029/30 |
| **2.3** | SW Transfer Pump Station - North West | 36 L/s @ 26m (Submersible) | 1 | Item | $4,977,439 | $4,977,439 | SWC | 2025/26 – 2029/30 |
| **2.4** | SW Rising main - North West (DN250) | DN250 pressure pipeline | 2,391 | m | $1,695 | $4,052,030 | SWC or Developer | 2025/26 – 2029/30 |
| **2.5** | SW Transfer Pump Station - North | 11 L/s @ 7m (Submersible) | 1 | Item | $3,759,040 | $3,759,040 | SWC | 2025/26 – 2029/30 |
| **2.6** | SW Rising main - North (DN150) | DN150 pressure pipeline | 2,137 | m | $1,330 | $2,842,911 | SWC or Developer | 2025/26 – 2029/30 |
| **2.7** | SW Transfer Pump Station - East | 14 L/s @ 59m (Submersible) | 1 | Item | $4,164,721 | $4,164,721 | SWC | 2025/26 – 2029/30 |
| **2.8** | SW Rising main - East (DN200) | DN200 pressure pipeline | 3,601 | m | $1,505 | $5,419,266 | SWC or Developer | 2025/26 – 2029/30 |
| | **Subtotal** | | | | | **$41,335,922** | | |
| **3** | **Stormwater Treatment, Disinfection and Recycled Water Storage** | | | | | | | |

| Item | Description | Details | Qty | Units | Rate | Total Costs (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|---|
| **3.1** | Drum Screens incl Residuals Handling & Out loading | Removal of large particles in stormwater | 1 | Item | $4,381,643 | $4,381,643 | SWC | 2025/26 – 2029/30 |
| **3.2** | Intermediate Pump Station to Micro-strainer | 150 L/s at 20m head | 1 | Item | $1,397,046 | $1,397,046 | SWC | 2025/26 – 2029/30 |
| **3.3** | Micro-strainer | Removal of fine particles in stormwater | 1 | Item | $1,929,450 | $1,929,450 | SWC | 2025/26 – 2029/30 |
| **3.4** | Balance Tank | 2ML | 1 | Item | $5,118,793 | $5,118,793 | SWC | 2025/26 – 2029/30 |
| **3.5** | Intermediate Pump to UV & CCT | 150 L/s at 20m head | 1 | Item | $1,825,540 | $1,825,540 | SWC | 2025/26 – 2029/30 |
| **3.6** | UV reactor | Disinfection | 1 | Item | $3,615,872 | $3,615,872 | SWC | 2025/26 – 2029/30 |
| **3.7** | Chlorine dosing unit | Disinfection | 1 | Item | $4,393,975 | $4,393,975 | SWC | 2025/26 – 2029/30 |
| **3.8** | Chlorine Contact Tank (CCT) | 2ML | 1 | Item | $5,118,793 | $5,118,793 | SWC | 2025/26 – 2029/30 |
| **3.9** | Intermediate Pump to Reservoir | 150 L/s at 20m head | 1 | Item | $1,682,640 | $1,682,640 | SWC | 2025/26 – 2029/30 |
| **3.10** | Reservoir | 4.2 ML at High Elevation + Mixer | 1 | Item | $11,775,444 | $11,775,444 | SWC | 2025/26 – 2029/30 |
| | **Subtotal** | | | | | **$41,239,196** | | |
| **4** | **Recycled Water Distribution** | | | | | | | |
| **4.1** | Critical control points | | 5 | Item | $182,324 | $911,622 | SWC | 2025/26 – 2029/30 |

| Item | Description | Details | Qty | Units | Rate | Total Costs (SW Estimate) | Delivered by | Commissioning year |
|---|---|---|---|---|---|---|---|---|
| **4.2** | IICATS control units and logics | | 1 | Item | $340,339 | $340,339 | SWC | 2025/26 – 2029/30 |
| **4.3** | RW Outlet Main from Reservoir | DN450 | 250 | m | $3,087 | $771,840 | SWC | 2025/26 – 2029/30 |
| **4.4** | RW Distribution Mains | DN150 + Mamre Road | 4,335 | m | $3,738 | $16,205,752 | SWC | 2025/26 – 2029/30 |
| **4.5** | RW Booster Pump Stations | 3 pumps (5L/s VSD @ 14m head) | 3 | Item | $1,782,862 | $5,348,586 | SWC | 2025/26 – 2029/30 |
| **4.6** | RW Pressure Control Valve | | 1 | Item | $460,233 | $460,233 | SWC | 2025/26 – 2029/30 |
| **4.7** | Flow Control at Microsoft Data Centre | | 1 | Item | $205,205 | $205,205 | SWC | 2025/26 – 2029/30 |
| **4.8** | Potable top-up connection | DN 300 connection | 1,600 | m | $1,818 | $2,909,410 | SWC | 2025/26 – 2029/30 |
| **4.9** | Potable water network amplification | DN300 to DN450 pipeline | 3,000 | m | $1,215.50 | $3,646,486 | SWC | 2025/26 – 2029/30 |
| | **Subtotal** | | | **Item** | | **$30,799,472** | | |
| **5** | **Scope Delivered Early** | | | | | | | |
| **5.1** | Recycled Water Network Delivered Early | | 2 | Item | $3,502,500 | **$7,005,000** | Developer | **2024** |

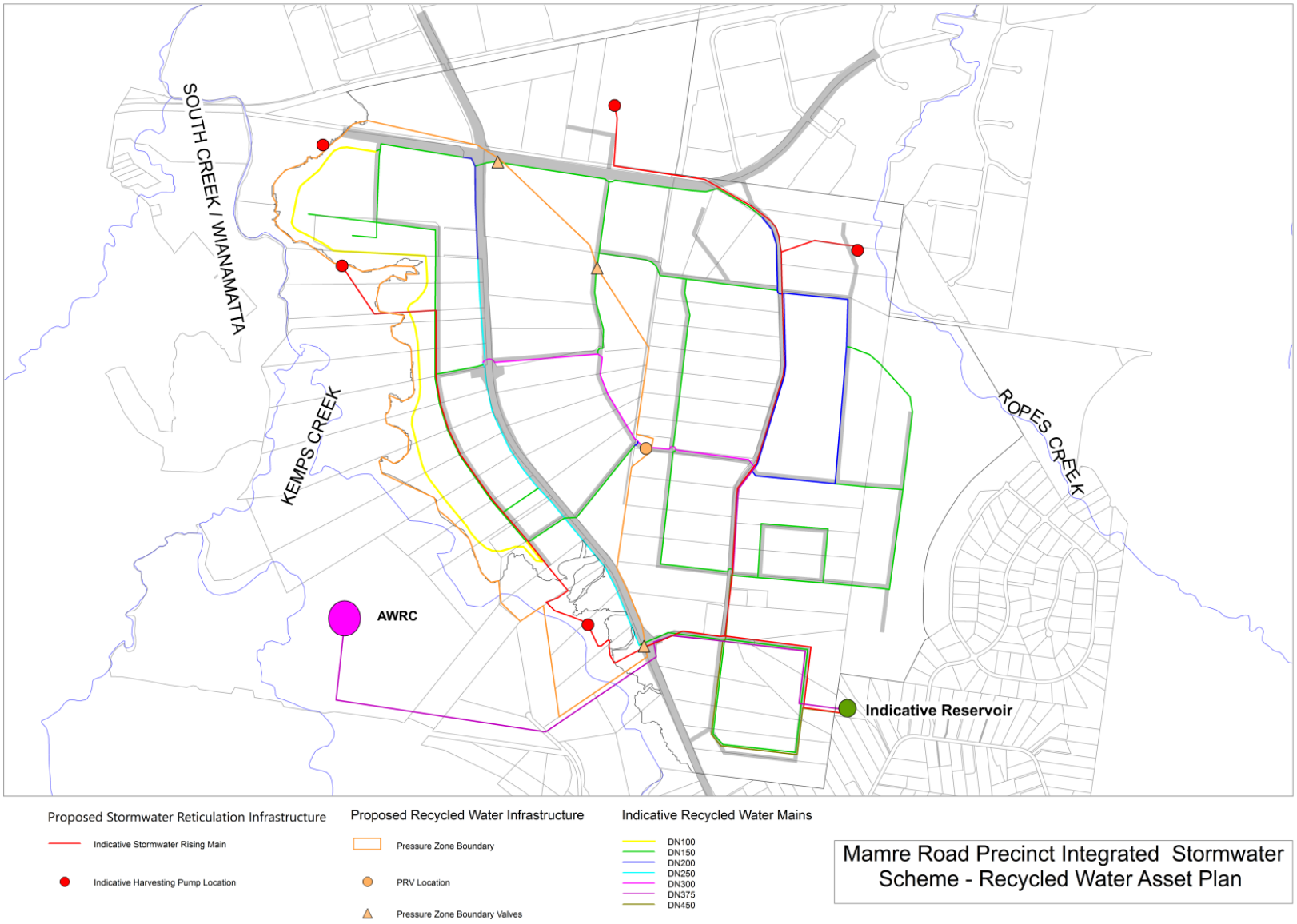



Figure 6-2 Recycled Water assets in Mamre Road Precinct

# 7 Appendices

## 7.1 Appendix A – Minimum content of documentation for public exhibition

| IPART information requirement | Reference |
|---|---|
| a summary of the contents of the DSP | Contents page |
| a statement specifying the System (or Systems) to which the DSP relates | Section 4.1 |
| a clear and accurate description of the DSP Area to which the DSP applies, including:<br>(1) its size;<br>(2) the basis for defining its boundaries; and<br>(3) reference to other DSPs where there is an overlap or co-usage of Assets | Section 4.1<br>See also the DSP methodology Appendix 7.2 |
| demographic and land use planning information including:<br>**(1**) the current residential population in the DSP Area;<br>(2) the estimated Equivalent Tenements in the DSP Area as at 1 January 1996;<br>(3) the projected population over a period of 30 financial years starting from the financial year in which the DSP was registered with IPART; and<br>(4) the projected Equivalent Tenements in the DSP Area for each financial year over a period of 30 financial years starting from the financial year in which the DSP was [is expected to be] registered with IPART | Section 4.2<br>Section 4.2<br>Section 4.2<br>Infrastructure contribution calculation spreadsheets and Figure 4.3 |
| timing of works in the DSP Area including:<br>(1) completed capital works; and<br>(2) proposed capital works | Infrastructure contribution calculation spreadsheets |
| the standards of service to be provided to customers in the DSP Area and design parameters of Assets | DSP methodology Appendix 7.2 |
| the calculated maximum price under clause 1 of Schedule 1 (*MPSch1*), and the information used to calculate that price, including:<br>(1) the future periodic revenues expected to be received from new customers in the DSP Area each financial year;<br>(2) the charges used for the calculation of those revenues;<br>(3) average water usage figures used for the calculation of those revenues;<br>(4) the future expected annual operating, maintenance and administration costs of providing services to new customers in the DSP Area in each financial year; and<br>(5) indexation principles and parameters used for that calculation | Section 5<br>Infrastructure contribution calculation spreadsheets<br>See also the DSP methodology Appendix 7.2 |

| IPART information requirement | Reference |
|---|---|
| a description, or reference to a background document containing the description, of Pre-1996 Assets and Post-1996 Assets in the DSP Area including:<br>(1) the date (or forecast date) of the commissioning of each Asset;<br>(2) the size/length of each Asset;<br>(3) the actual efficient cost of each Asset (where applicable);<br>(4) the unit cost of each Asset (if applicable);<br>(5) the MEERA valuation of each Asset (if applicable);<br>(6) the total capacity of each Asset expressed in Equivalent Tenements (if applicable); and<br>(7) the details of the number of Equivalent Tenements served by each Asset in each DSP Area, where that Asset serves more than one DSP Area | Section 6 |

## DSP Exhibition

The DSP was exhibited for a period of 30 working days from 8 January 2025 to 20 February 2025. Relevant parties were given 10 working days notice before exhibition commencement. Sydney Water advertised the exhibition through direct email to landowners, a print advertisement, links on the Sydney Water website home page and social media advertisements.

Following the exhibition, a ‘What We Heard’ Report was prepared, and this document was provided to IPART with the final DSP for their review. The report, final DSP and supporting model are available on our website.

Sydney Water has considered all written submissions as part of the process of the DSP being registered with IPART. Formal written submissions and emails have been responded to individually, with additional information provided where possible. Sydney Water may also use this information to develop future documents that inform other government agencies and/or IPART and will remove any identifying information.

If you have any further questions, please email aerostormwater@sydneywater.com.au

IPART reviews and registers each final proposed DSP we submit, and registered DSPs remain in force until reviewed and replaced (at maximum five-year intervals).

## 7.2 Appendix B – How we have applied IPART's methodology

The contribution price payable by each development is worked out using a method set by the NSW Independent Pricing and Regulatory Tribunal (IPART) in their 2018 Determination. This appendix provides information on how we apply IPART's Determination.

### 7.2.1 Our application of IPART's pricing method

IPART's methodology for infrastructure contributions is designed to work in tandem with the setting of regulated retail prices for our entire customer base. Costs not recovered through infrastructure contributions will be recovered from the wider customer base via regulated retail prices.

The IPART methodology generates a price payable by development inside discrete Development Servicing Plan (DSP) areas. The price in each DSP recovers the cost of assets needed to serve development, with an adjustment for the revenue to be received from new retail customers.

If servicing costs in an area are very low, it is possible that no contribution will be payable. In these low-cost areas, the normal ongoing revenue from each new customer is enough to cover the cost of providing them with services.

In areas with higher costs, the developer must contribute because revenue from new customers is not sufficient to fully recover costs. If we did not collect a contribution from the new connections enabled by developers, bills for all other customers would have to increase.

Without a framework for infrastructure contributions, the additional costs of new growth are recovered through service contributions from existing customers, placing additional pressure on household bills. The zero-charge policy has reduced the affordability of our services for all customers, already adding up to $200 a year to customer bills with the potential for a further annual increase of $200 or more over the coming years as we invest to serve new development[6].

IPART does not specify the number or size of DSP areas, instead leaving the design of DSPs as something to be worked through with developers and customers. We have been engaging with stakeholders to understand their preferences, while considering the objectives of IPART's method and the principles for infrastructure contributions identified by the NSW Productivity Commission[7]:

- Simple
- Consistent
- Transparent
- Efficient
- Certain.

[6] Water, wastewater and stormwater infrastructure contributions in metropolitan areas were set to zero by the NSW Government in December 2008. This policy was rescinded from 1 January 2022.

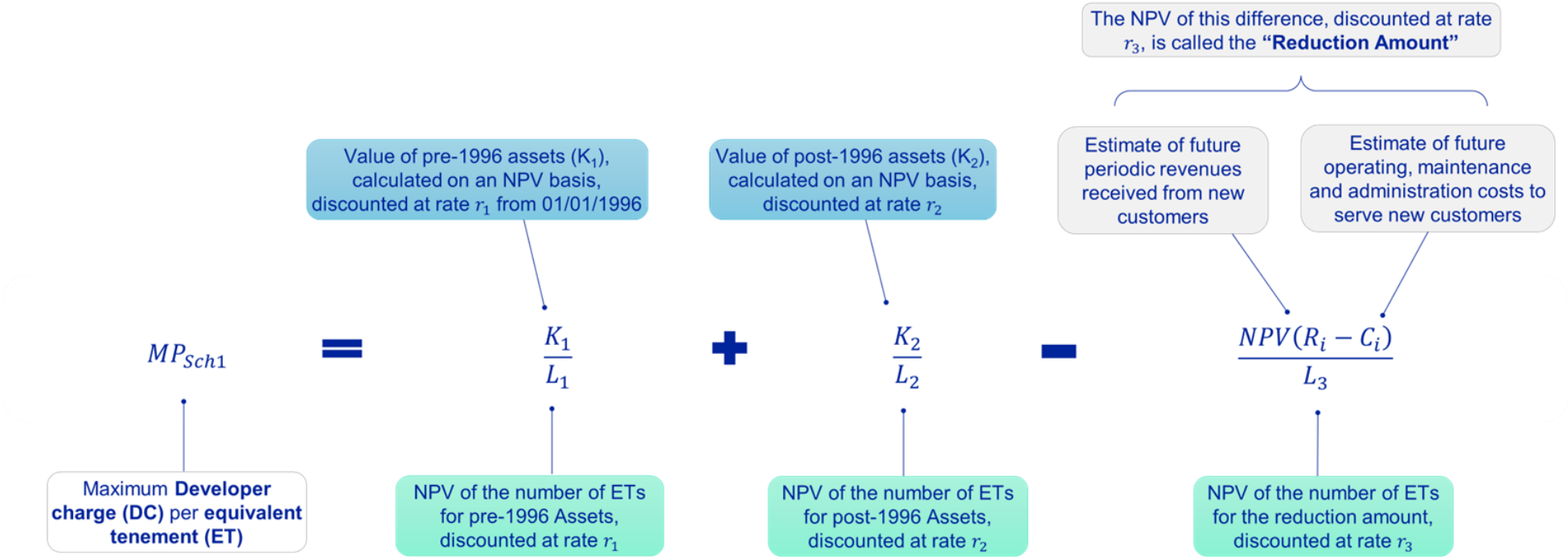
[7] NSW Productivity Commission (2020) *Review of infrastructure contributions in New South Wales – Final Report*.

### 7.2.2 IPART's infrastructure contribution price methodology

The method we use for setting infrastructure contribution prices has been regulated since 1995[8], and has been reviewed and updated by IPART several times. The most recent review was completed in 2018 when IPART issued a new determination[9] for calculating infrastructure contribution prices for water, wastewater and stormwater services.

The main elements of IPART's pricing method are shown in (Figure 7-1)

Figure 7-1 IPART's infrastructure contribution pricing method




**Note: for this DSP, one ET = 0.105 hectares, so, each hectare will be charged as 9.528 ETs.**

Some of the key features of IPART's method include:

[8] Government Pricing Tribunal (1995) *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services*.
[9] IPART (2018) *Maximum prices for connecting, or upgrading a connection, to a water supply, sewerage, or drainage system.*

- Both past and future assets are included, as past assets can provide capacity to serve development for many years into the future.
- Because we are dealing with past and future quantities, all inputs are converted to a common base year using a process known as discounting. Discounting converts past or future values into their equivalent value today.
- Discounting means that, everything else held constant, all developments pay the same (real) price regardless of when they occur.
- Costs are shared based on demand for services. The unit of demand is an 'equivalent tenement', which is defined as the total annual demand of a single, detached residential dwelling.
- Credit is given for the future revenue we will receive from new connections over the next 30 years, less O&M costs. This is because the total cost to deliver services is funded by both customer prices and infrastructure contributions. IPART also ensures costs are not recovered twice when they set customer prices, by deducting infrastructure contributions from our revenue requirement before calculating customer prices.

If development can be served at a low cost, the infrastructure contribution will be lower. For some water and wastewater systems, the cost to provide new connections is so low that the infrastructure contribution is zero for that connection in that area.

### 7.2.3 We are not able to implement other pricing methods

From time to time, stakeholders have proposed we use other pricing methods and/or have made suggestions about how we might implement IPART's method.

Sydney Water aims to be easy to deal with and provide value for money for all customers, including developers.

While we think there are aspects of IPART's method that could be improved, a full review of the method was completed in 2018, and stakeholders had an opportunity to suggest changes at that time.

Under our Operating Licence, we must set the level of fees and charges in accordance with any relevant IPART price determination, which includes the 2018 Determination.

### 7.2.4 Standards of service we must meet

This section sets out the standards of service provided to customers and the design parameters for our assets. This information is required under Schedule 4, Clause 1(f) of the 2018 Determination.

Sydney Water is a statutory state-owned corporation (SOC), wholly owned by the NSW Government, established under the *Sydney Water Act 1994* to provide the following principal functions[10]:

- Storing or supplying water
- Providing sewerage services
- Providing stormwater drainage systems
- Disposing of wastewater.

Sydney Water can only carry out these functions under the authority of an operating licence inside a defined area of operations. Our Operating Licence[11] contains terms and conditions that we must meet when performing our principal functions, including quality and performance standards. Sydney Water is also required to maintain various management systems, including an asset management system that is consistent with AS ISO 55001:2014.

Our performance against the Operating Licence is audited each year, and non-compliance can result in enforcement action. The quality and performance standards in our Operating Licence that apply to stormwater and, for this DSP the associated recycled stormwater system are:

- we must maintain a Management System that is consistent with the Australian Guidelines for Water Recycling and any requirements relating to water recycling specified by NSW Health (clause 4.2.1)
- in the event of inconsistency between the requirements specified by NSW Health referred to in clause 4.2.1 and the Australian Guidelines for Water Recycling, the requirements specified by NSW Health prevail (clause 4.2.2)
- we must ensure that the Recycled Water Quality Management System is fully implemented and that all relevant activities are carried out in accordance with the Recycled Water Quality Management System and to the satisfaction of NSW Health (clause 4.2.3).

In addition, our Operating Licence contains standards of service for water services which are related to recycled water systems. To mitigate the risk to public health of unplanned cross connection of drinking and recycled water networks, drinking water networks in the vicinity of recycled water networks are maintained at higher pressure. Table 7.1 shows the water network standards of service which are also relevant to design and operation of recycled water networks.

[10] Sydney Water Act, s 12
[11] https://www.sydneywater.com.au/content/dam/sydneywater/documents/operating-licence.pdf

Table 7-1 Operating Licence standards that may be affected by recycled water networks

| 2019-2023 Licence standard | Effect of recycled water network | Example costs |
|---|---|---|
| Water pressure<br>9,999 properties per 10,000 experience fewer than 12 water pressure failures each financial year (pressure < 15m head for a continuous period of one hour or more) | Recycled water network pressure should be maintained lower than adjacent drinking water networks This can increase capital and operating costs of those networks. | Booster pumps<br>System re-configuration<br>New reservoirs |
| Water continuity<br>9,800 properties per 10,000 are unaffected by an Unplanned Water Interruption each financial year (no water supply for more than five continuous hours) | New recycled supply networks may lead to longer response times | Additional repair crews in new locations (on-going operational expense) |

### 7.2.5 Design parameters for recycled water systems

In addition to regulatory instruments such as the Operating Licence, the design of recycled water systems occurs in the context of what might be termed ‘quasi-regulatory’ documents such as Australian Standards and Industry Codes of Practice. This section outlines some of the major considerations that influence the design of these systems, and which cater for the impact of new connections.

Recycled water system assets are generally sized for a specific demand type. Understanding the potential variability of demand over the years, months, weeks and days is crucial to selecting fit for purpose assets. If new connections will add to demand in an area, we need to understand whether assets can provide a reliable level of service and, if not, what changes may be required.

Estimates of future demand are a combination of the number and type of new properties expected in an area (eg, residential, non-residential) and anticipated water use by each type of property. Our approach to forecasting growth in properties is described in section 0. In relation to anticipated recycled water use per property, we may use site-specific information where this is available, or we may apply default assumptions to provide an indicative estimate of potential demand.

In general, longer term asset planning will reflect default demand assumptions, and this will be refined as we prepare individual business cases for the delivery of assets.

### 7.2.6 Stormwater – Scheme Principles

The Regional Stormwater Scheme for Mamre Road Precinct was designed according to Sydney Water's Stormwater Scheme Principles. These principles are consistent with the practice notes, reviews and benchmarking for the NSW Government, IPART and the Productivity Commission as well as shaped by an open industry and public exhibition/consultation in 2022. Full details and examples of the principles are available from the *Stormwater management framework for Aerotropolis and Mamre Road precincts: Stormwater scheme principles* on the Sydney Water website [12].

1. There shall be no formal limit on the size of the stormwater scheme.
2. Stormwater schemes will be planned to service all land within the declared catchment and provide trunk drainage to service catchments greater than 15ha.
3. Stormwater schemes will be planned to recognise and celebrate water on Country.
4. Stormwater schemes will be planned to consider, respect, and protect cultural values, along trunk drainage and within waterways.
5. Stormwater schemes should propose infrastructure to service development that is efficient in terms of cost and performance.
6. Infrastructure benefits common to more than one stormwater scheme will have the cost apportioned.
7. All landowners will receive an equivalent level of service.
8. Infrastructure designed to accommodate run-off from non-developable land within the stormwater scheme boundary will be funded by Development Servicing Plan
9. Stormwater scheme infrastructure required to service existing urban land within the scheme will not be funded by the Development Servicing Plan.
10. Infrastructure to service future development external to the stormwater scheme will not be funded by the Development Servicing Plan
11. Environmental works downstream of stormwater schemes will be funded where upstream development is the cause of the problem.
12. Sydney Water or the local council will meet the cost of improved stormwater infrastructure works for existing development.
13. Development Servicing Plans and associated stormwater schemes will be reviewed at least once every five years.
14. A robust consultation process will govern the creation of stormwater schemes.

[12] https://www.sydneywater.com.au/plumbing-building-developing/developing/land-development/aerotropolis-stormwater-development-requirements.html

15. Development Servicing Plans may be adjusted for innovative works that benefit the entire stormwater scheme.
16. Stormwater schemes will include property acquisition costs consistent with NSW Government standards and practices.

### 7.2.7 Choosing Development Servicing Plan areas

This section sets out how we have defined this DSP area. This information is required under Schedule 4, Clause 1(c)(2) of the 2018 Determination.

While IPART's infrastructure contribution method involves the calculation of prices for a discrete DSP area, the 2018 Determination does not prescribe how to set DSP areas. The Final Report accompanying the 2018 Determination included the following guidance:

> Developer charges should signal the location-specific costs of development. If DSP areas are too small, the administrative costs … may be too high and there may be undue price variations between areas and even, over time, within an area. On the other hand, if DSP areas are too large, costs could be averaged across disparate areas, lowering administrative costs but nullifying the price signal. Our current approach is to not prescribe how to set DSP areas; therefore, utilities can balance cost-reflectivity and administrative costs.

**IPART** | Final report – maximum prices to connect, extend or upgrade a service, p 63

We would also note that costs not recovered via infrastructure contributions must be recovered via normal retail bills across our entire customer base, and this can also be an important consideration when defining DSP areas due to certain features of IPART's methodology. Given the likely differences in cost to provide trunk drainage services between precincts in the Aerotropolis, we propose to calculate and exhibit the Mamre Road stormwater DSP separately from the remaining Aerotropolis precincts. The advantages of adopting this smaller boundary are:

- Costs and timing of infrastructure are more certain for this precinct as development is forecast to occur here before other precincts.
- Smaller boundaries provide greater location-specific signals for the cost to provide the service (less cross-subsidy between adjacent precincts)

The main disadvantage of a smaller DSP boundary is that development forecasts for larger areas tend to be closer to actuals than for smaller areas. This means that should development become significantly delayed from the forecast used to calculate the DSP, Sydney Water would need to revise the DSP which would increase the charges for remaining development. In the absence of significant changes, DSPs are reviewed every five years, and the design of areas can be updated based on new circumstances that may arise in the future.

### 7.2.8 Equivalent Tenements definition

The infrastructure contribution price is the amount that must be paid by one equivalent tenement (ET). IPART's 2018 determination defines one ET as being equal to the annual total demand of an average detached, single residential dwelling, but provides no further definition of 'demand'.

IPART also decided not to specify any values for an ET in our 2020 price determination, essentially leaving this as something to be calculated if needed in the future.

The intent of IPART's method is that costs are shared based on the relative demand for our services from each new connection. We have defined demand for stormwater based as a function of land area (property area, in hectares) regardless of specific land use (ie, residential vs non-residential).

The 2018 Determination requires that we use location specific data where available[13], as opposed to Sydney-wide averages.

### 7.2.9 Historic and future stormwater ETs

There are no other stormwater DSPs at this time (ie, none with existing ETs).

However, previously, we defined stormwater ETs as being proportional to the developable area of a property. This is a consistent with how other stormwater infrastructure contributions are levied (eg. Council s7.11 contributions). As such, we will plan to continue to use a developable area-based definition for ETs for all our new greenfield stormwater DSPs.

### 7.2.10 Forecasting future demand for new connections

Forecasts of new demand for our services reflect intelligence known to Sydney Water, which is sourced from:

- development or site-specific information obtained directly from our developer customers,
- published government data (eg, DPHI Growth Forecasts and Western Sydney Aerotropolis Growth Area (WSAGA)),
- Section 78 development referrals[14],
- precinct-specific forecasts provided by the Department of Planning and/or local councils.

For this DSP, the precinct is greenfield and entirely non-residential. As such, the Equivalent Tenements in the DSP Area as at 1 January 1996 is zero and the residential population (who will rely on the new infrastructure in this DSP area) will be zero[15].

### 7.2.11 Residential vs non-residential forecasts

Forecasts of residential development show the expected number of dwellings.

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[13] See, for example, Schedule 5, clause 5(b)
[14] Under Section 78 of the Sydney Water Act, consent authorities such as the Department of Planning and local councils must refer impactful development applications to Sydney Water. These referrals alert Sydney Water to upcoming development and any potential impacts to our assets.
[15] This information is provided for clarity and as a requirement of IPART's 2018 Determination.

Unlike the residential sector, however, the number of new non-residential properties is not necessarily a good predictor of the underlying demand for our services. For example, a large commercial building may have several hundred employees, and industrial properties may use production processes that require large volumes of water. In each case the total demand for our services would be many times that of a single residential dwelling, but the property itself may only have one or two physical connections to our systems.

The non-residential sector is also highly diverse, with many different types of potential land uses and different levels of demand for our services. While land zoning can sometimes provide a guide to future land uses, in most cases Sydney Water will not know actual land use until we receive an application for a new connection (and, even then, this can change in the future). However, we must still make forecasts of future demand to support infrastructure planning and infrastructure contribution pricing. As noted above, we may also supplement employment forecasts with estimates of demand from known development proposals.

### 7.2.12 Future stormwater ETs

For the Mamre Road stormwater DSP area, the land use is entirely non-residential. In the case of non-residential development, growth is measured as the change in total net developed hectare across all non-residential property types, not the change in the number of properties.

### 7.2.13 Excluded assets

IPART's pricing method only allows Sydney Water to recover the costs of infrastructure where there is a nexus to development. That is, the need for investment is due to an increase in demand for our services – in other words, but for the increase in demand we would not need to invest. IPART's 2018 Determination requires[16] that the following assets must be excluded from a DSP area:

a) that part of an asset provided for a reason other than to service a growth area;

b) that part of an asset that services other DSP Areas;

c) the capacity of an asset that was made available by changes in land use patterns, or by changes in average demand;

d) any asset or part of an asset that was unreasonably oversized relative to system and capacity requirements, based on available demographic data at the time it was commissioned; and

e) any asset or part of an asset funded by Developers and transferred free of charge to the Agency.

In addition, IPART has specified several principles that apply when deciding what assets are included in the price calculation. For example, Schedule 5, clause 2.4(d) provides that:

[16] Schedule 7, definition of Excluded Assets.

*(1) an Agency temporarily supplies services to a Development from an existing Asset; and*

*(2) the Agency transfers the supply of services to the Development from the existing Asset to the new Asset that has just been commissioned;*

*then only the costs of the new Asset may be included in calculating maximum prices under this determination.*

As such, no assets which fit the description of excluded assets have been included in the calculation of this DSP.

### 7.2.14 Commissioned assets

IPART's infrastructure contribution pricing method requires[17] that all commissioned assets must be valued using a valuation method known as the Modern Engineering Equivalent Replacement Asset (MEERA), with values taken from an asset register or some other source acceptable to IPART. As this is a greenfield DSP, there are no commissioned assets.

### 7.2.15 Un-commissioned assets

IPART's infrastructure contribution pricing method requires[18] that un-commissioned assets must be valued at their efficient cost, which is essentially equivalent to MEERA values. Section 7.2.4 of this report describes the service standards we are required to meet, and the performance criteria we typically use to assess whether our existing assets can cater for current and project demand.

Our planning process (see Figure 7-2) proceeds with an increasing level of detail as we gain more information about the size, location and staging of new development. Although we aim to identify the most efficient solution at each stage, the final solution that we ultimately deliver may differ from the solution identified in an earlier stage of planning. Cost estimates will also be reviewed and updated at each stage, with increasing levels of confidence as we move towards physical delivery of assets (or other solutions).

We have used the following data sources to identify future capital expenditure needed to meet new demand due to growth:

- Individual project or program business cases
- Growth Servicing Investment Plans (GSIPs)
- Long-Term Capital and Operating Plan (LTCOP)

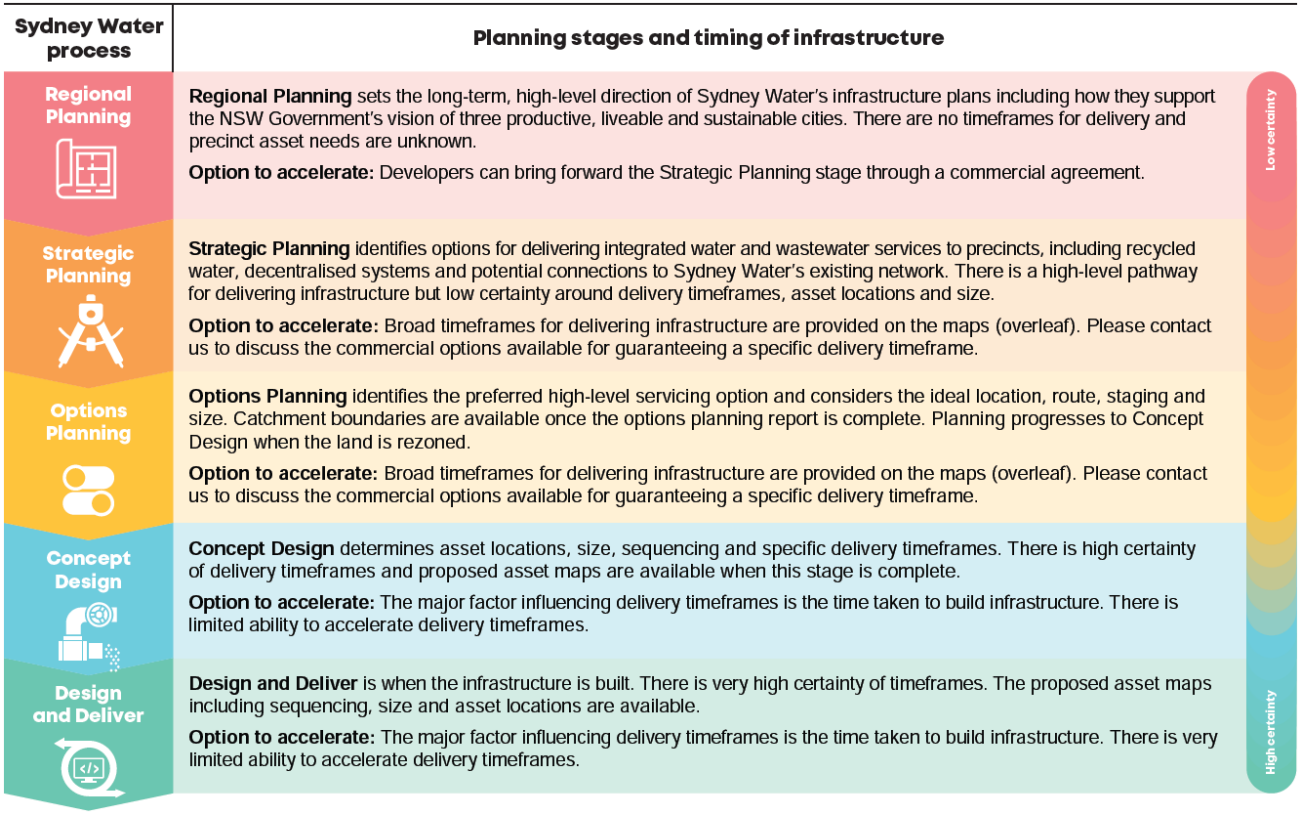
[17] See Schedule 5, clause 2.1.
[18] See Schedule 5, clause 2.1.

### 7.2.16 Apportionment of asset values to the right development

In effect, it may be appropriate to apply multiple levels of cost apportionment: (1) where an asset services multiple DSP areas, and (2) where an asset provides services to both past and future development, or only to future development. However, in this DSP, there are only un-commissioned assets, so we have applied a 100% cost apportionment factor. For example, if a $1 million asset will provide services to the DSP area, the full $1 million is used as an input to the infrastructure contribution price calculation.

If an un-commissioned asset is shared across more than one DSP area (known as headworks), costs will be apportioned to each relevant DSP based on their share of capacity used (as per IPART's method, we measure capacity used based on ultimate or final demand).

Figure 7-2 Planning and delivery of new infrastructure to serve growth




Source: *Sydney Water Growth Servicing Plan 2022 – 2027*

### 7.2.17 Choice of investment horizon

IPART's 2018 Determination for water, wastewater and stormwater requires[19] us to maintain enough DSPs, covering a large enough geographic area, to ensure we capture all current demand and expected medium-term growth in the demand for our services.

The phrase 'medium-term' is not defined, leaving some flexibility to decide how much future investment will be included in those infrastructure contribution prices. For example, if future development plans beyond 20 years are uncertain, we might choose a shorter time horizon to calculate infrastructure contribution prices for the relevant DSP area.

In our previous implementation of water and wastewater DSPs, in 2006, we generally adopted a five-year investment horizon. Consistent with the results of stakeholder engagement, and also the inherent extra uncertainty regarding the timing and value of future asset delivery, we have generally opted for a 10-year investment horizon for the water and wastewater DSPs currently on exhibition. However, as this DSP represents a significant increase in the total integrated stormwater infrastructure we will own and operate, we have adopted a 30-year forward looking investment horizon to better reflect the total costs and forecast development who will contribute to those costs. For this DSP area, we expect full development to occur over the next 20 years.

### 7.2.18 Net operating result

Each new connection to a trunk drainage system results in:

- Additional revenue from regulated service and recycled stormwater usage prices; and
- Additional operating costs as end-use customers make use of our services.

Regulated service and usage prices are designed to allow Sydney Water to recover the efficient cost of providing services using IPART's Building Block Method (BBM) and are set in such a way that each type (or class) of customer pays the same price no matter where they are located (an approach known as postage stamp pricing).

In other words, these prices are a measure of the average cost of providing a customer with a service, considering the cost of building, operating and maintaining existing and future assets.

IPART's infrastructure contribution pricing methodology takes incremental revenue into account as part of setting a price for a specific DSP area.

If servicing costs in a DSP area are very low, the normal ongoing revenue from each new customer can be enough to cover the cost of providing them with services. It is possible that no infrastructure contribution will be payable in these low-cost areas.

[19] See Schedule 4, Clause 1.

In areas with higher costs, the developer must contribute because revenue from new customers is not sufficient to fully recover costs. If we did not collect a contribution from the new connections enabled by developers, bills for all other customers would have to increase.

Without a framework for infrastructure contributions, the additional costs of new growth are recovered through service contributions from existing customers, placing additional pressure on general water, wastewater and stormwater prices and household bills.

### 7.2.19 Revenue from new connections

Revenue from new connections is a function of the number and type of new connections, and the level of structure of our recycled water usage prices. We have forecast revenue from both stormwater service charges and recycled stormwater usage charges.

Current stormwater service charges for non-residential properties are levied in 5 discrete bands which are broadly proportional to property area (the larger the property the higher the charge). The size of future individual properties in this DSP area is not yet known. As such, we have forecast a mix of property sizes for the purposes of predicting future stormwater service revenue as follows:

- Half of all developed area will be large lots, and will pay the 10,001 m2 to 45,000 m2 stormwater charge.
- The other half of all developed area will be smaller lots and pay the 1,001 m2 to 10,000 m2 stormwater charge.

For recycled water usage charges, in 2020, we proposed, and IPART accepted us setting prices at 90% of the drinking water price. In this stormwater DSP, we have used the following recycled stormwater usage prices in the calculation of the net operating result.

**Note for IPART:** The current model used to calculate the Infrastructure Contribution charge assumes that recycled water is available in the Precinct from the beginning of operations 2027/28. It is expected that the potable water pricing will be used in the interim until recycled water is commissioned within the Precinct.

Table 7-2 Recycled stormwater usage prices for infrastructure contribution modelling, $2024-25

| Price | 2026 |
|---|---|
| Recycled water usage price ($ / kL) | $2.81 |

### 7.2.20 New connections

Our approach to forecasting new connections is discussed in section 4.2 of this report.

When calculating revenue from new non-residential connections, we use the forecasts of the number of new ETs. As it generally takes two years before a development is occupied and connected to services, our forecast of new ETs for revenue calculation lags that for development by one year.

### 7.2.21 Operating Costs

The future operating and maintenance costs for the Mamre Road stormwater DSP are based on estimated costs. As historical information is not available, operating cost have been forecasted based on existing knowledge and benchmarked against data from Councils where available.

The method of calculating costs identifies:

- the processes and activities required to produce the recycled water (eg treatment, distribution)
- the cost driver for each process/activity (eg electricity, chemicals)
- support costs (eg customer meter reading costs)
- corporate overheads (allocated proportional share of Sydney Water's corporate costs in line with the 2020 Price Determination)

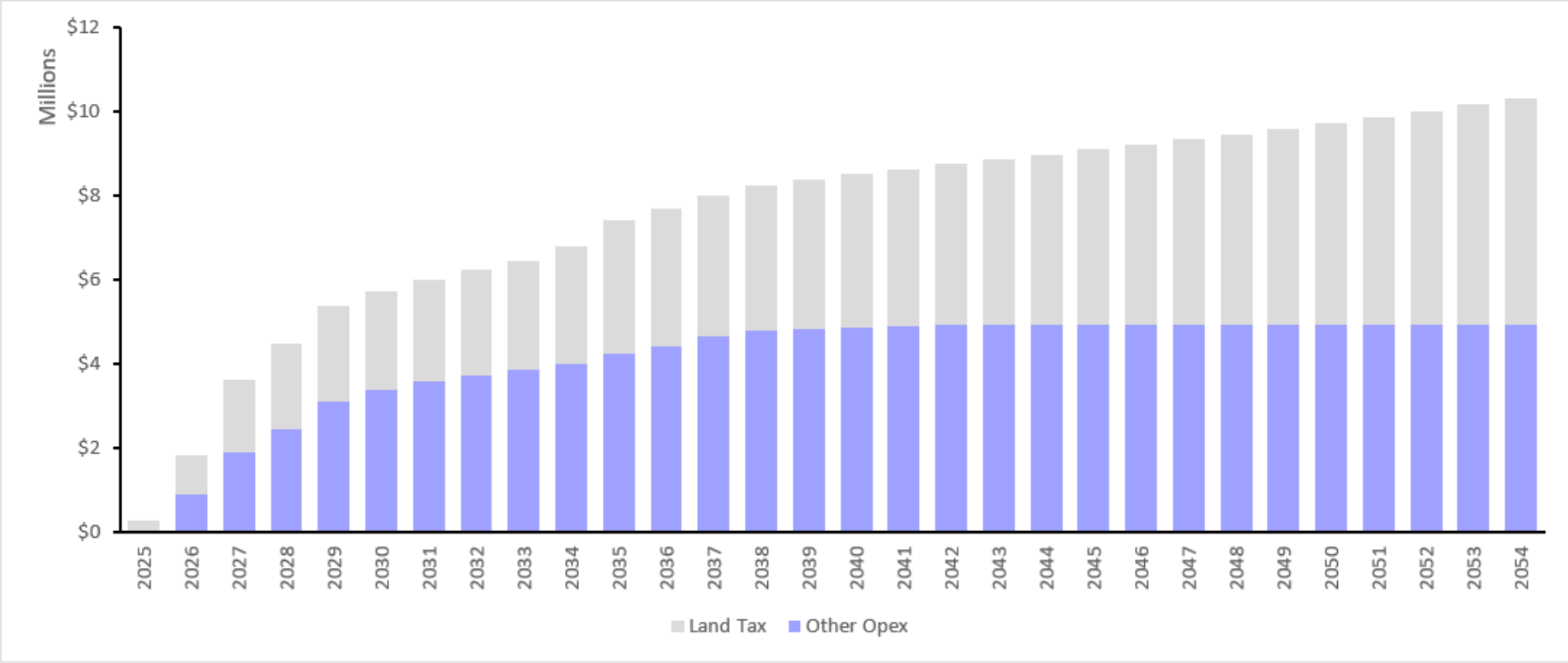
The majority of the recycled stormwater operating and maintenance cost components are variable and depend on throughput. For example, distribution pumping costs are calculated using the volume of water supplied, the kilowatts of power required and the unit costs of electricity. However, other operating cost components such as corporate overheads and general trunk drainage maintenance do not vary with throughput in the short-term.

Total overall operating costs for the Mamre Road stormwater DSP increase in line with development forecasts, as shown in Table 7-3.

### 7.2.22 Land Tax

Land tax has been included in the Infrastructure Contribution based on NSW government guidelines for the calculation of land tax and also using the existing land acquisition assumptions (Refer Chapter 3).

Table 7-3 Forecast operating expenditure ($FY25)




NB. This graph represents expenditure after the efficiency adjustment has been applied.

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For more info email aerostormwater@sydneywater.com.au