



Aerotropolis Integrated Stormwater Development Servicing Plan

Submitted to IPART August 2026



Acknowledgement of Country

Sydney Water respectfully acknowledges the Traditional Custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

A central part of Country in this area is Wianamatta meaning 'Mother's Place'. Wianamatta, otherwise known as South Creek, is a complex water system that travels from Dharawal Country in the south, through Dharug Country in the Aerotropolis to the north. It is made of an interconnected network of ephemeral creeks and resource rich, swampy Country, also known as wetlands. Through impacts of colonisation and agricultural land use, these water systems have been fragmented and damaged. As the future of Aerotropolis changes, it is vital we commit to healing and revitalising water on Country.

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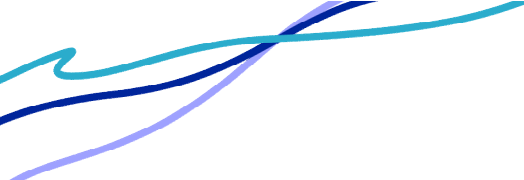
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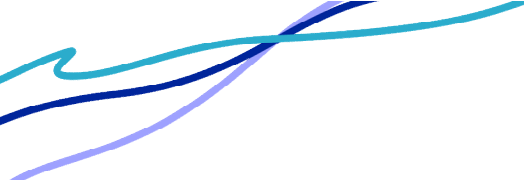


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1 Executive Summary

This Development Servicing Plan (DSP) is for the Aerotropolis Precincts Integrated Stormwater Scheme and incorporates all charges relating to the integrated stormwater management and recycled water service for the Aerotropolis Precincts. It sets out assumptions used to estimate the draft Infrastructure Contribution price for connecting a new development to the Integrated Stormwater Scheme. The Infrastructure Contribution for the Aerotropolis Precincts Integrated Stormwater Scheme covers the cost of:

- land acquisition and the associated stamp duty and ongoing land tax liabilities,
- a range of infrastructure and assets for conveyance and capture of stormwater including stormwater basins and trunk drainage channels,
- stormwater harvesting and treatment infrastructure,
- distribution of recycled stormwater to development via a third pipe network, and
- a recycled wastewater connection to the Upper South Creek Advanced Water Recycling Centre to ensure scheme resilience.

Other Infrastructure Contributions may be payable by developers depending on what services each development requires, for example, drinking water and wastewater.

Sydney Water is the Regional Stormwater Authority for the Aerotropolis Precincts including Mamre Road, Bradfield (Aerotropolis Core), Badgerys Creek, Agribusiness and Northern Gateway. This is the second DSP to be prepared for integrated stormwater schemes in the Aerotropolis. The Mamre Road Integrated Stormwater DSP was registered by the Independent Pricing and Regulatory Tribunal (IPART) in May 2025. This plan builds on learnings from development of the Mamre Road Integrated Stormwater Scheme. This plan seeks to be:

- Efficient – the prepared price represents an optimised scheme incorporating all efficiencies identified in the Scheme Review and DSP exhibition for Mamre Road.
- Consistent – the price has been determined in line with the 2018 Determination.
- Simple – the price is presented on a hectare basis to allow for simple calculation.

Along with the conveyance of stormwater from the development areas, a key objective of the Regional Stormwater Authority is to achieve the NSW Government waterway health objectives by meeting the stormwater flow and water quality targets for stormwater set out in the Western Sydney Aerotropolis Precinct Plan and Development Control Plan.

This estimated price for new stormwater connections has been calculated using the method set by the Independent Pricing and Regulatory Tribunal (IPART) in their 2018 Determination¹. This document describes inputs that are specific to the area of the Aerotropolis Precincts, including Aerotropolis Core, Badgerys Creek, Wianamatta-South Creek, Northern Gateway and Agribusiness. For these areas 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 Aerotropolis Precincts integrated stormwater DSP area is

\$124,748.88 (\$2026-27) per Equivalent Tenement (ET)

Which will be charged as

\$1,188,548.15 (\$2026-27) per developable hectare

(these values assume 2.6% cost escalation rate from FY26)

These figures are presented in financial year 2026-2027 as this DSP is expected to be registered late in calendar year 2026. The above figures were calculated assuming a cost escalation rate of 2.6% in line with Sydney Water and NSW Treasury guidelines.

Table 1-2 sets out the estimated maximum prices that would be levied on new developments for stormwater services in the Aerotropolis 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 2026-27)²

Estimated Maximum price calculated under the 2018 Determination (\$/ET)	\$124,748.88
Estimated Maximum price calculated under the 2018 Determination (\$/developable hectare)	\$1,188,548.15

¹ IPART (2018) *Maximum prices for connecting, or upgrading a connection, to a water supply, sewerage, or drainage system. Final Determination*

² The rate for financial year 2026-2027 was estimated in line with Sydney Water's and NSW Treasury's guidelines. This assumes that the appropriate escalation rate will be 2.6%.

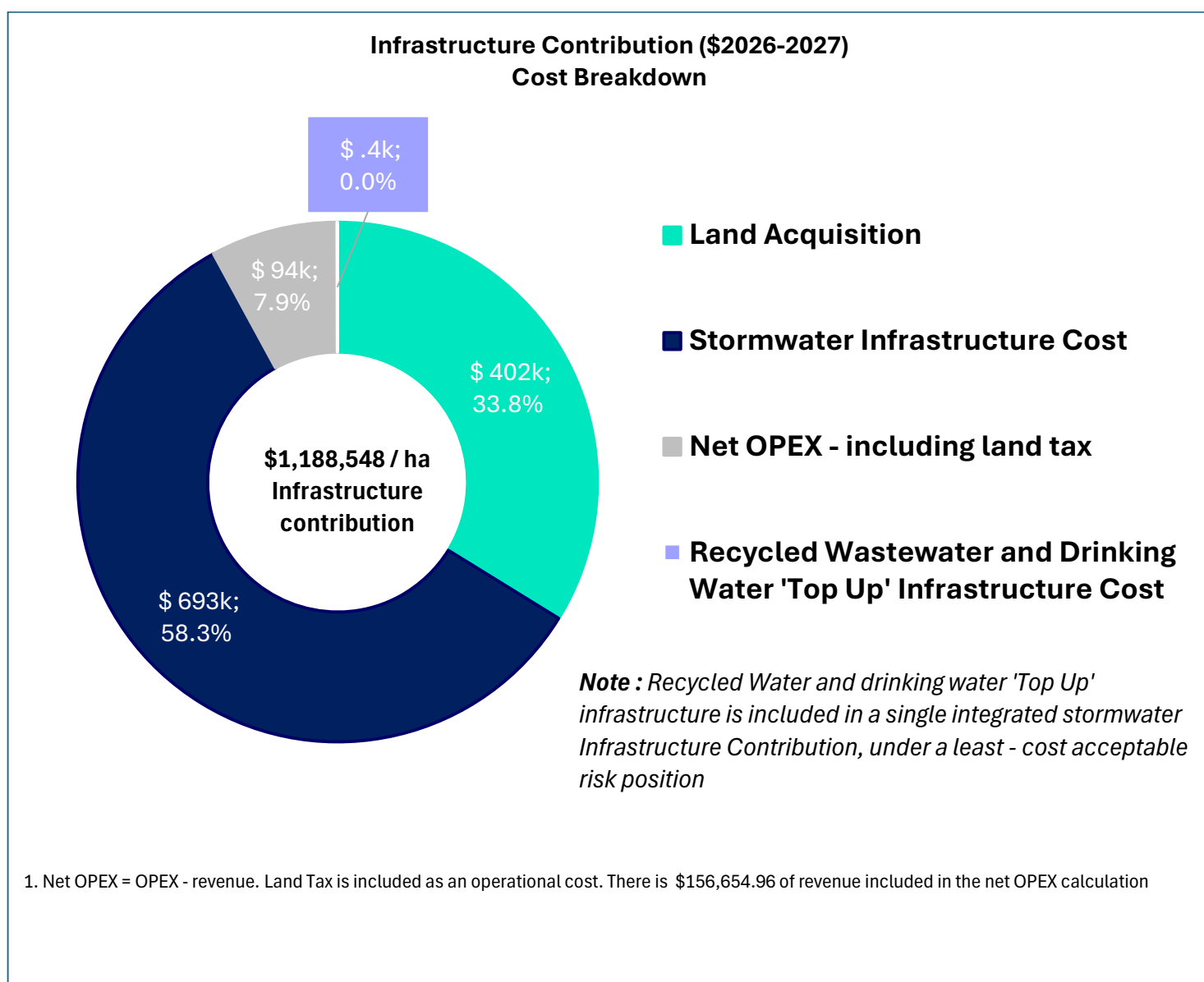
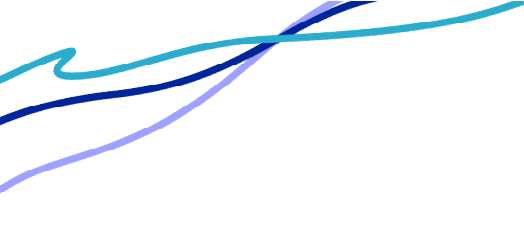


Figure 1-1 Components of the Infrastructure Contribution rate (refer to section 5 for calculation detail)³

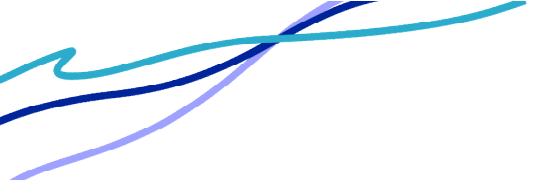
Reader notes

The term '2018 Determination' refers to the Independent Pricing and Regulatory Tribunal (IPART) 2018 Determination for connecting or upgrading a water, sewerage, or drainage connection. This determination sets out the price calculation methodology and procedural requirements for this Development Servicing Plan (DSP).

³ The rate for financial year 2026-2027 was estimated in line with Sydney Water's and NSW Treasury's guidelines. This assumes that the appropriate escalation rate will be 2.6%.



The 2018 Determination requires that we show all dollars as at 1 July 2026 (that is, 2026–27 financial year dollars, or real dollars of this year). This is the financial year we expect the finalised DSP to be registered with IPART. All past and future costs and revenues are also shown as at 1 July 2026. By reporting all amounts in real dollars of the expected registration year, it allows for easier comparison between the amounts Sydney Water has spent (capital and operating costs) or received (customer revenue) across different years because the effect of inflation has been removed.



2 Introduction

2.1 Infrastructure Contributions and Development Servicing Plans

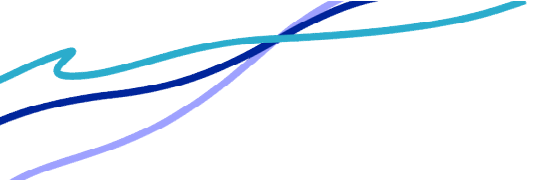
This Development Servicing Plan (DSP) provides the details of the infrastructure, costs and revenues associated with the proposed Integrated Stormwater Scheme for the Aerotropolis Precincts. These costs and revenues are then used to calculate the contributions required to deliver these works under the methodology set out by Sydney Water's independent regulator, IPART in their 2018 Determination. The works will provide stormwater and recycled water services to development through delivery of the Aerotropolis Precincts Integrated Stormwater Scheme.

In March 2022, the 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 most efficient way to achieve key water related outcomes for the Western Parkland City vision. Sydney Water was appointed as the Regional Stormwater Authority for the Aerotropolis Precincts, and the Mamre Road Precinct. Sydney Water's ability to levy Infrastructure Contributions (ICs) from developers for stormwater servicing was reinstated to support service delivery. This contribution structure is similar to the stormwater elements of the S7.11 provisions for Local Councils.

Sydney Water has detailed principles for developing our stormwater schemes. These principles 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>. These principles are based on the 2020 findings of the NSW Productivity Commission's Review of Infrastructure Contributions in New South Wales.

Infrastructure contributions set out in DSPs must include all capital and operating costs and the contributions are reduced to account for the expected future revenue from customers connected to the scheme. Costs include land acquisition, infrastructure design and delivery, operations and maintenance, land tax and stamp duty. 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 to meet development related waterway health requirements at least cost to the community.

This is the second Integrated Stormwater DSP to be prepared by Sydney Water. IPART registered the Mamre Road Integrated Stormwater DSP on 1 May 2025. The Mamre Road Integrated Stormwater DSP relates to a stormwater and recycled water service for an area adjacent to this DSP, however there is



no overlap in area or infrastructure. Sydney Water also exhibited a DSP for a stormwater and recycled water service in Rouse Hill in early 2026, which is anticipated to be registered by IPART within the next month. The area for the Rouse Hill DSP is approximately 30 kilometres away from the area for this DSP. The area for this DSP is also covered by DSPs for drinking water and wastewater services which do not share costs with this DSP. These are the Nepean River Wastewater Services DSP (2023) and the Greater Sydney Drinking Water DSP (2023).

This plan will be placed on public exhibition for a period of 30 business days from 28 April 2026 to 9 June 2026. During this time written submissions can be sent to aerostormwater@sydneywater.com.au. For more information, please refer to aerotropolisstormwater.mysocialpinpoint.com.au.

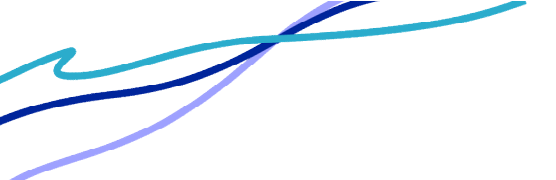
2.2 Who pays the Infrastructure Contribution?

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 an application for a Section 73 Compliance Certificate to Sydney Water.

Upon receiving an application, Sydney Water will investigate the impact a proposed development is likely to have on our 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. These conditions might include details of works that must be constructed so that services will be available to the development or 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. Sydney Water will continue to use this mechanism to enable release of section 73 certificates until this DSP is registered. The bonding rate for integrated stormwater infrastructure contributions for the Aerotropolis Precincts is \$1,043,456 per developable hectare (\$FY26) or \$1,070,586 per developable hectare (\$FY27).



From the date of registration of this plan, all Aerotropolis Precincts 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 regional servicing with trunk drainage, basins, wetlands and other stormwater treatment and distribution infrastructure. Waterway health targets are designed to prevent the catchment waterways reaching an ecological tipping point, after which high environmental and economic costs would arise. The scheme has been designed to avoid exceeding these targets when development occurs and additional community benefits that arise are largely incidental. The most efficient way to achieve the waterway health targets is to capture and recycle a large proportion of stormwater runoff via recycling for third pipe use. This minimises the need for extra stormwater storage.

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). The 2018 Determination defines one ET as being equal to the annual total demand of an average detached, single residential dwelling⁴. For the regional integrated stormwater scheme, demand on the system is proportional to land area, regardless of property type, because the demand on the system is proportional to the increase in stormwater runoff from development, so all chargeable properties will pay a contribution in proportion to the developable area of their property⁵.

⁴ The 2020 and 2025 Retail Price Determinations do not specify a value for 'average demand' so we must describe what value we will use when calculating the contribution price for each DSP area. Our approach to estimating average demand is set out in Appendix 7.2 of this report.

⁵ Not all land is chargeable, however there will also be an increase in runoff from some non-chargeable land uses. As those land uses contains infrastructure or other amenities to support the development on chargeable land, the demand on the system from a chargeable development in effect includes both the increased runoff from that individual development, plus a share of any increased runoff from supporting infrastructure on non-chargeable land.

How Development Area Impacts the Stormwater System

The infrastructure contribution rate is based on an **Equivalent Tenement (ET)**. This is a standard unit used to define the demand development places on the system it needs to connect to. Under the 2018 Determination, 1 ET represents the annual demand an average single residential dwelling places on a system. The way ETs are defined depends on the type of service being provided. For example, the demand placed on water systems are defined using the amount of water used by the development, whereas demand on wastewater and stormwater systems are defined using the amount of wastewater and stormwater discharged by development into those systems. As a result, a development may have a different number of ETs for each service.

For the **integrated stormwater scheme**, demand is based on the increase in stormwater discharged into the system. This is largely proportional to the amount of developable land rather than the type or density of individual developments because stormwater runoff is primarily driven by the area of land being developed. When precincts are developed, more rainwater runs off surfaces such as roofs, roads and paved areas. This increases the volume, flow rates and pollutants entering the stormwater system. Stormwater infrastructure is therefore required to manage these impacts and support development in accordance with planning requirements.

Because the demand on the stormwater system is almost entirely driven by the total area of land being developed, all chargeable development contributes based on their **Net Developable Area (NDA)**. This approach allows demand on the system to be calculated consistently across the catchment, regardless of the type of development. For example, an apartment building may generate greater demand for water and wastewater services than a warehouse, resulting in more ETs for those services. However, if both developments have the same developable area, they will place a similar demand on the stormwater system and therefore make the same stormwater contribution.

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, we have defined one ET equals to equal about 0.105 hectare of net developable area⁶. If Sydney Water

⁶ Although 0.105 hectares is larger than the land area typically associated with a single dwelling in this DSP area, the ET-to-hectare conversion rate has been adopted to maintain consistency with the Mamre Road Integrated Stormwater DSP and the Rouse Hill Stormwater DSP. This supports transparent comparison of infrastructure contribution prices across different stormwater catchments. For this integrated stormwater scheme, the conversion rate does not affect the amount payable by a development, as charges are applied in proportion to net developable area. It is used to express the contribution in Equivalent Tenements, consistent with the 2018 Determination, which requires prices to be calculated and reported on a per-ET basis.

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 \$124,749 (\$2026-27) per Equivalent Tenement (ET), so in this example the development would be required to pay \$1,188,548 per development hectare (\$124,749 per ET x 9.528 ETs).⁷

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> .

Example: Total Infrastructure Contribution (IC) payable

1 Calculate ETs

Developable Hectare of development



ET vs developable hectare conversion rate



Total ETs for your development

Example:
If the development is located on 1 ha of developable land

If a single residential dwelling occupies 0.105 ha of developable land

Example:
Then total ETs for your development would be 9.52753 ETs = 1 hectare / 0.105 hectare per ET

2 Calculate Total IC for your development

Total ETs for your development



IC per ET¹



Total IC for your development

Example:
9.52753 ETs in this example

A base price in the DSP area is \$124,749 per ET

Example:
Then the development would be required to pay total IC of \$1,188,548 = \$124,749 per ET x 9.52753 ETs²

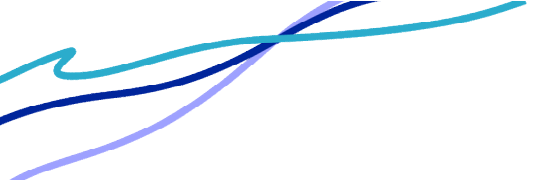
¹ The price is adjusted each financial year based on changes in the Consumer Price Index (CPI)

² Difference in calculation caused by rounding

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

The number of ETs in a development is based on information supplied to us during the Section 73 process. For all developments, the number of ETs will be assessed based on the expected volumetric demand from the land use (eg, for stormwater, the volumetric demand is the rainfall runoff during storm events, which is proportional to the developable area of the property). For the Aerotropolis Precincts, the developable and non-developable (primarily industrial) land use types were used to estimate the precinct’s total rainfall runoff and the cost of the integrated stormwater system is shared

⁷ All ET to hectare or m² conversion rates in this document have been rounded to three decimal places, however, all contribution prices payable will be calculated using the unrounded conversion rates shown in the DSP calculation spreadsheet.



equally across all developable land uses. Sydney Water uses a similar definition of net developable area (NDA) as is used to calculate Special Infrastructure Contributions (SICs). This is set out in the Environmental Planning and Assessment (Special Infrastructure Contributions) Determination 2022. Sydney Water's approach is also explained in the NDA factsheet placed on exhibition with this document. Only the categories of land defined as net developable area attract an infrastructure contribution. This means that although the Aerotropolis Precincts DSP area is 5,650.9 hectares (ha), as there are only 2944.7 ha of net developable area, the total incremental costs are divided by 2944.7 ha's.

Charging on a net developable area basis allows for distribution of Infrastructure Contributions in proportion to the demand placed on the integrated stormwater system. Costs and charges 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.

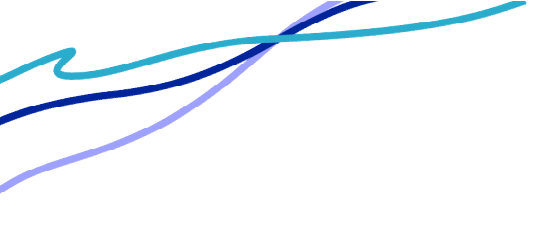
Development may also require a drinking water and wastewater infrastructure contribution to be paid⁸. The method to calculate drinking water and wastewater infrastructure contributions is similar but not identical to how stormwater contributions are calculated. For more details, please see the *How we apply IPART's pricing method* document on the Sydney Water Talk website⁹ 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 Cosgroves Creek Catchment SWMAP0079-SW_106, Duncans Creek Catchment SWMAP0081-SW_108, Mulgoa Creek Catchment SWMAP0080-SW_107, Badgerys Creek Catchment SWMAP0078-SW_105 and the Wianamatta South Creek (Aerotropolis) Catchment SWMAP0077-SW_104. These five declared catchments cover the area known as the initial Aerotropolis Precincts and can be viewed here:

⁸ Unlike stormwater contributions, drinking water and wastewater contributions have been gradually phased in from 1 July 2024.

⁹ These documents also outline that unlike stormwater and recycled water contributions, water and wastewater contributions have been gradually phased in from 1 July 2024.



<https://legislation.nsw.gov.au/view/html/inforce/current/sl-2012-0292/maps>. The boundary of the DSP is also shown in Figure 3-1 Aerotropolis Integrated Stormwater Development Servicing Plan Area.

2.6 Integrated Stormwater Principles and Framework

To service the Aerotropolis Precincts, a stormwater scheme was detailed identifying infrastructure and land to be owned and/or managed by Sydney Water consistent with the Stormwater Management Framework¹⁰. 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 6.2.6)
- The Preliminary Drainage Management and Delivery arrangements by Asset as identified in the Stormwater Management Framework

In accordance with Principle 5, the Aerotropolis Precincts 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 beyond the required minimum standards undertaken by developers and/or local Council will not be funded by the DSP.

2.7 Public Purpose

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

- State Environmental Planning Policy (Precincts – Western Parkland City) 2021
- Western Sydney Aerotropolis Precinct Plan
- Western Sydney Aerotropolis Development Control Plan 2022 (Phase 2), particularly in relation to stormwater management controls, waterway health objectives and stormwater management targets for the Wianamatta–South Creek catchment
- Recognise Country: Guidelines for Development in the Aerotropolis
- Western Sydney Aerotropolis Open Space Needs Study 2021

¹⁰ Stormwater Management Framework for Aerotropolis and Mamre Road Precincts. December 2022.

- Review of water sensitive urban design strategies for Wianamatta-South Creek. NSW Department of Planning and Environment 2022
- Australian Guidelines for Water Recycling
- Technical Guidance for achieving Wianamatta South Creek stormwater management targets. NSW Department of Planning and Environment 2022
- 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 benefits to future communities allowing development to progress with flood resilient and safe urban landscape, improved urban cooling outcomes, waterway health, and riparian environment.

2.8 Design parameters and assets

Stormwater management across the Aerotropolis Precincts is a shared responsibility of private development, Liverpool City Council and Penrith City Council and Sydney Water. Sydney Water is responsible for drainage infrastructure for stormwater catchments equal to or greater than 15ha, the trunk drainage infrastructure provides conveyance, treatment and storage and harvesting of urban stormwater runoff for redistribution through the recycled water network. A map of these assets across the Aerotropolis Precincts can be found on our website [here](#). The associated Infrastructure Contribution calculation spreadsheet outlines the categories of costs that have been identified for the Scheme:

- **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.

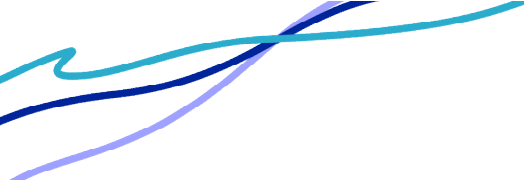
- **GPTs and access:** Gross pollutant traps and associated maintenance access driveways/paths used in exceptional cases only.
- **Wetlands ponds and outlets:** The bulk of wetland/pond construction including earthworks, vegetation, pipes, pits, rockwork etc.
- **Disposal of excess spoil:** Allowance 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.
- **Waterway rehabilitation:** Restoration of degraded sections of existing waterways that are not restored through private development, Vegetation Management Plan requirements or covered by federal government funding (e.g. CPCP avoided lands). Works may include channel bed and bank restoration, realignment and revegetation, and dam dewatering.

Detailed costs can be found in the Infrastructure Contribution calculation spreadsheet which is placed on exhibition with this document at aerotropolisstormwater.mysocialpinpoint.com.au

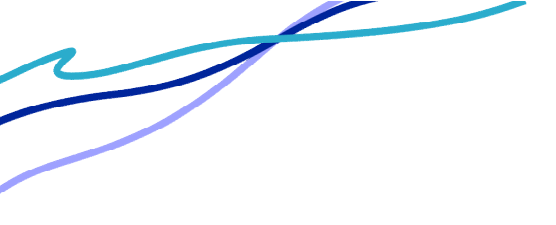
2.9 Relationship to other Agencies' Contribution Charges

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 the Aerotropolis Precincts — where Sydney Water is the Regional Stormwater Authority — stormwater infrastructure is covered by Sydney Water's DSP and is not included in the relevant council's LIC.
- Housing and Productivity Contributions (HPC), levied by the NSW Government in accordance with the Environmental Planning and Assessment Act 1979 and the Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2024. The HPC replaced the former Special Infrastructure Contribution (SIC) as the state infrastructure contribution mechanism for the Western Sydney Aerotropolis from 1 July 2026. The HPC 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 state infrastructure contributions under the EP&A Act. The NSW Department of Planning, Housing and Infrastructure (DPHI) has oversight of both the HPC and LIC frameworks to ensure that there is no overlap between charges. Sydney Water, DPHI, Penrith City Council and Liverpool City Council have worked together to reconcile developer charges across the three contributions to ensure there is no duplication.



3 Aerotropolis IWCM Development Servicing Plan area

3.1 Systems covered by this DSP

The boundary of this DSP area (Figure 3-1 Aerotropolis Integrated Stormwater Development Servicing Plan Area) covers three stormwater catchments: Wianamatta Badgerys, Cosgroves and Duncans Mulgoa.

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 initial Aerotropolis Precincts. 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 Aerotropolis Precincts Integrated Stormwater and Recycled Water Scheme Plan (henceforth “Integrated Scheme Plan”). This DSP does not include the integrated stormwater system servicing the Mamre Road Precinct.

The area covered by the proposed regional integrated stormwater system is approximately 5650.9 hectares (ha), which includes 2944.7 ha of net developable land. The definition of Net Developable Area is as defined in the *Environmental Planning and Assessment (Special Infrastructure Contributions) Determination 2022* which can be found [here](#). The DSP area has been zoned predominately for industrial purposes to services the new airport and meet the industrial land demands of Western Sydney. Industrial uses fall under two planning zones Enterprise (ENT) and Agribusiness (AGRI) and these make up approximately 70% of the Aerotropolis precincts. 13% of the initial precincts are zoned for Mixed Use (MU) which caters predominantly for commercial and medium to high density residential land uses. The remainder of lands are for infrastructure (SP2/MIC) and environmental (ENZ) purposes are not considered developable land. The scheme has been planned to cater for both industrial and residential/commercial development.

The Integrated Scheme Plan for the Aerotropolis Precincts has been published, and can be found online [here](#). The Scheme Plan is a conceptual layout of the required infrastructure’s sizing and location that will be delivered within the Aerotropolis precincts.

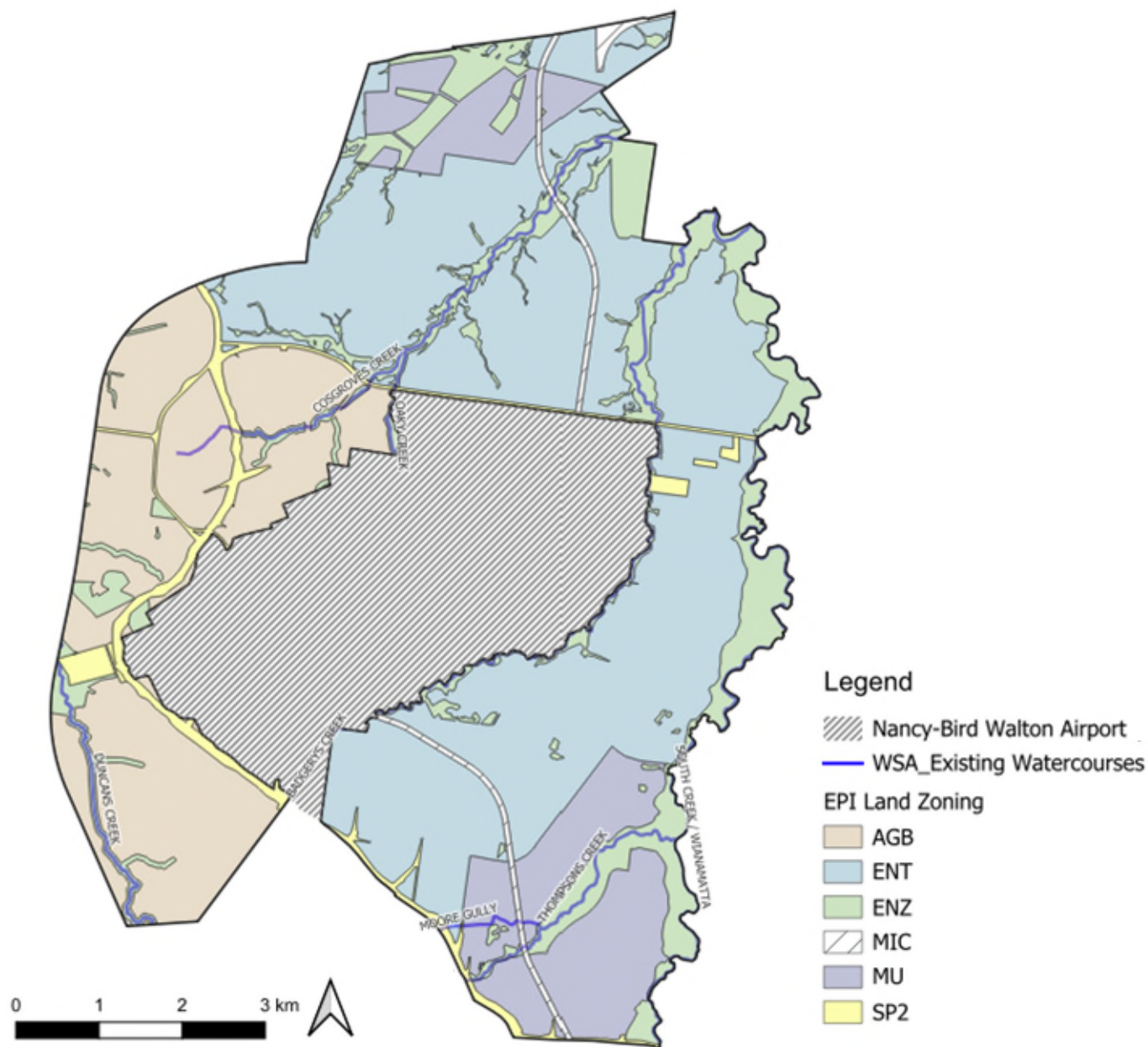


Figure 3-1 Aerotropolis Integrated Stormwater Development Servicing Plan Area

Note: Nancy-Bird Walton airport is exempt from stormwater infrastructure and is not developable area.

3.2 Future development in the DSP area

To calculate a stormwater infrastructure contribution price for the Aerotropolis Precincts, 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. Growth will include residential and non-residential developments. 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. Some development will occur after the DSP period, but the infrastructure will be completely constructed within this time.

Table 3-1 Estimated future Development in the Aerotropolis Stormwater DSP Area

	2026 -27	2027 -28	2028 -29	2029 -30	2030 -31	2031 -32	2032 -33	2033 -34	2034 -35	2035 -36	2036 -37
New development - NDA (hectares)	81	180	228	104	82	154	313	60	189	99	166
New development (ETs)	774	1,713	2,173	993	777	1,469	2,985	575	1799	943	1,584

Note. Future development forecasts for all years of the DSP period are available in the IC Calculation model placed on exhibition with this document.

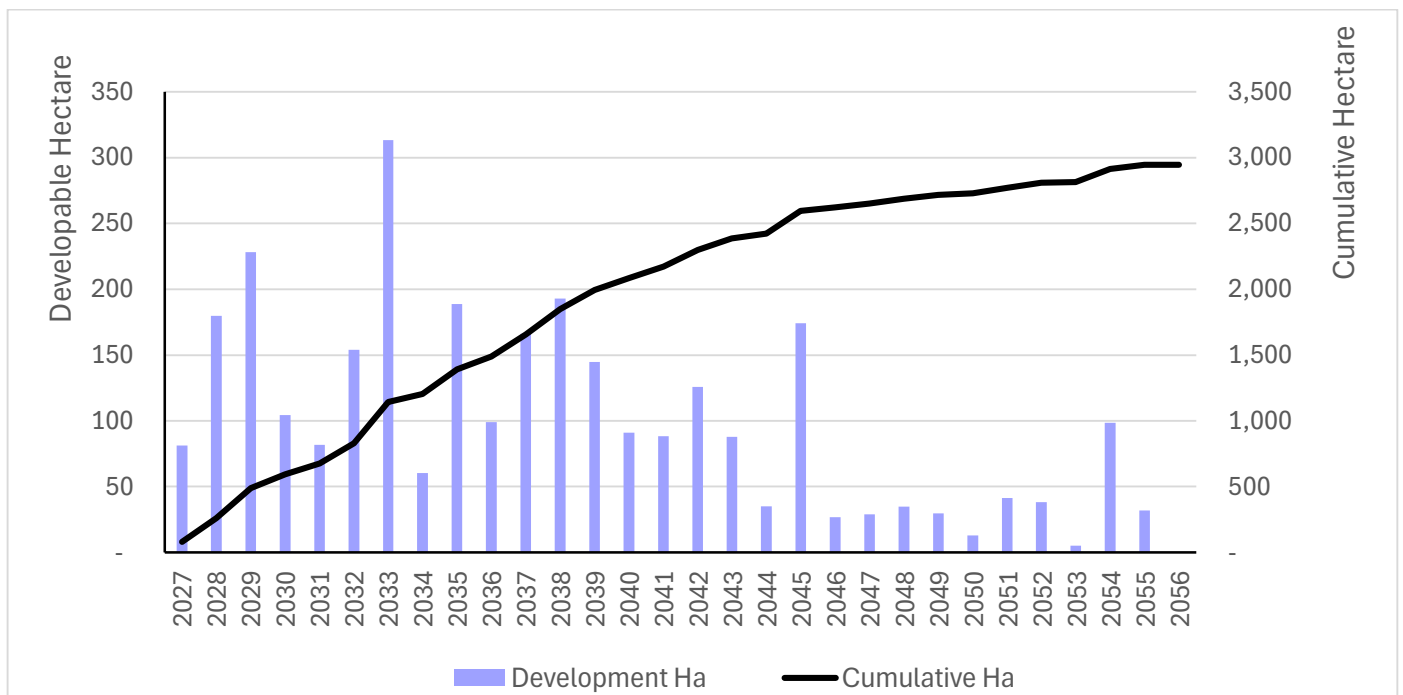


Figure 3-2 Estimated future Development (developable hectares) in the Aerotropolis Stormwater DSP Area

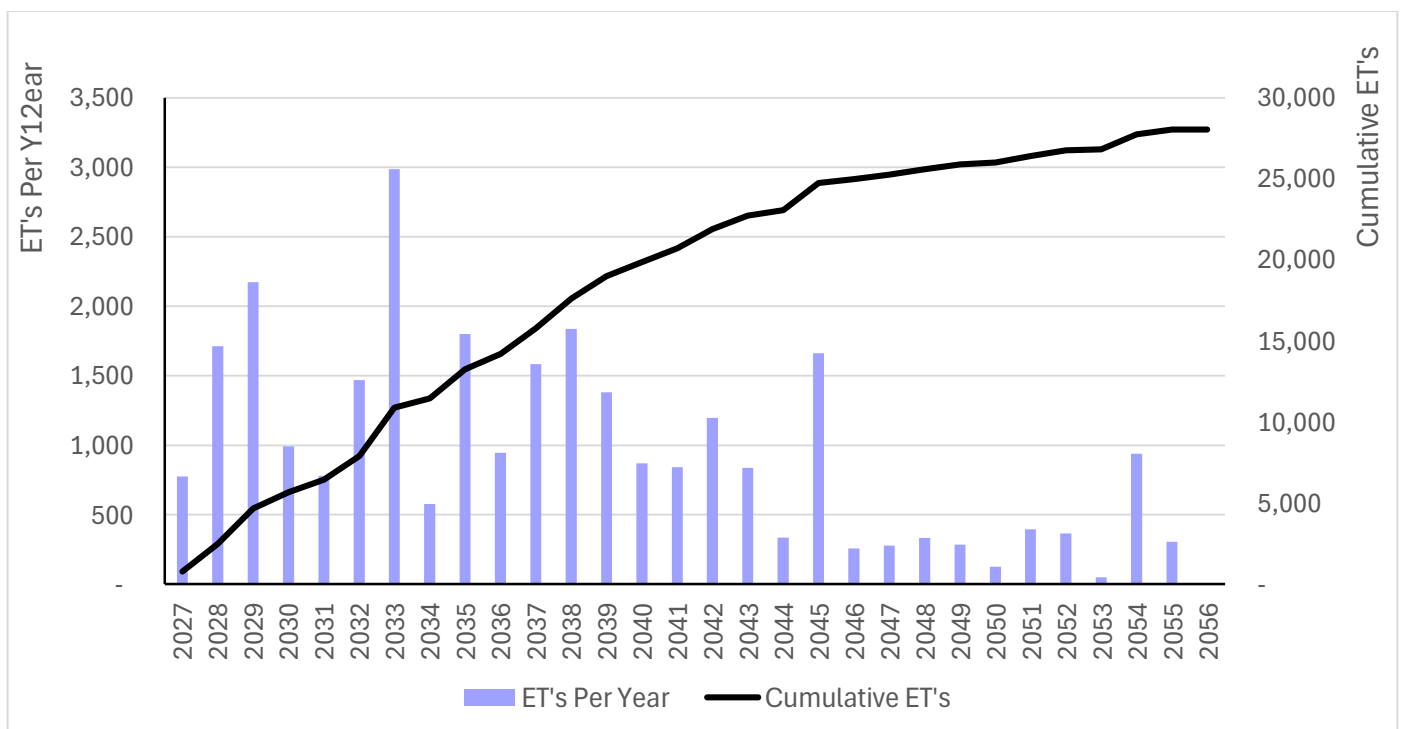


Figure 3-3 Estimated future Development in Equivalent Tenements in the Aerotropolis Stormwater DSP Area

3.3 Future assets and land acquisition providing services to the Aerotropolis Precincts DSP Area

This section shows the total cost of future assets to be constructed to provide services to new development. The chart below is inclusive of capital asset renewal, hence the continued investment after the DSP area is fully developed. No capital renewal beyond 2056 (30-year DSP period) has been included to align with the 30-year assumption used for revenue and operating costs.

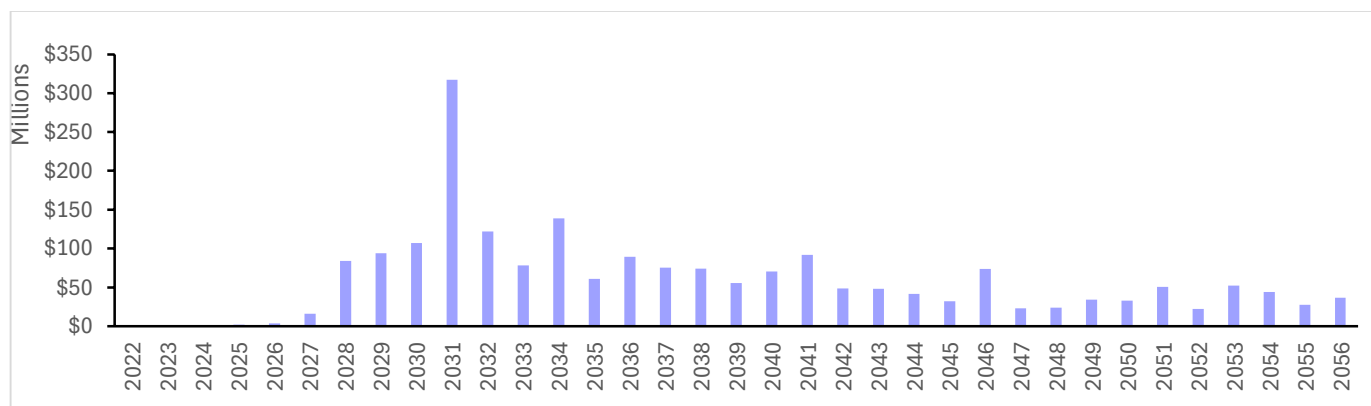


Figure 3-4 Estimated future Assets (\$FY27) in the Aerotropolis Precincts DSP Area

The below figure shows the total cost of land to be acquired to provide services to new development. Sydney Water has adopted some key assumptions for land acquisition set out below (Table 3-5). 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 3-5 may change over time.

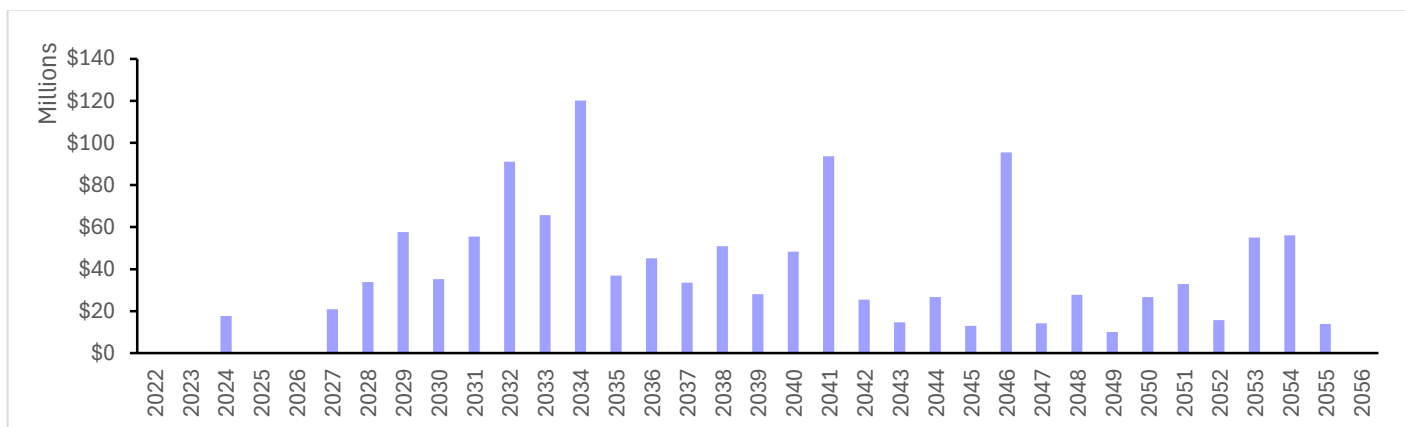


Figure 3-5 Estimated Future Land Acquisition (\$FY27) in the Aerotropolis Precincts stormwater DSP Area (including stamp duty, compensation payable and hardship disinvestment)

Note: The \$18 million of land acquired in FY24 and the estimated \$21 million of land acquisition in FY27 relate to purchase of land from landowners experiencing hardship. These purchases only take place when hardship can be demonstrated due to the difference in time between rezoning of land for infrastructure and the time at which Sydney Water would make the land purchase to enable the integrated stormwater system to service new development. As all infrastructure mapping for the Aerotropolis precincts was mapped in 2022, but development will occur beyond 30 years, there may continue to be hardship claims in future years.

Land values in this document or the calculation spreadsheet are not to be used to estimate land acquisition associated with developer delivered assets

These costs do not represent an offer or assumption of pricing for any land associated with assets to be delivered for the integrated stormwater scheme. These cost assumptions represent average rates and the real costs may be more or less. 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.

Table 3-2 Key land acquisition assumptions

Acquisition area	Total:	257.87	Ha
	Flood prone	93.89	Ha
	ENT	77.53	Ha
	ENZ	29.25	Ha
	MU	5.44	Ha
	SP2	0.16	Ha
	AGB	37.58	Ha
	Dwyer rd reservoir	1.88	Ha
	Badgerys Creek	1.64	Ha
	Hardship	10.50	Ha

Land price & growth rate¹¹

	Growth Rate	Valuation	
Flood prone	1.50%	87.13	(Real \$2027 per sqm)
ENT	4.00%	477.27	(Real \$2027 per sqm)
ENZ	1.50%	124.28	(Real \$2027 per sqm)
MU	4.00%	666.25	(Real \$2027 per sqm)
SP2	4.00%	589.38	(Real \$2027 per sqm)
AGB	4.00%	358.75	(Real \$2027 per sqm)
Dwyer rd reservoir	4.00%	410.00	(Real \$2027 per sqm)
Badgerys Creek	4.00%	467.61	(Real \$2027 per sqm)
Hardship	1.5% - 4%	364.27	(average rate)
Land acquisition timing	67% of land is acquired within the first 15 years of development. Land acquisition timing is currently assumed to enable the rate of growth of development.		

Note. Growth rates are applied in addition to CPI in future years to account for increase in value over time. This means that land costs over the period will not be underestimated in future years. Actual growth costs may be higher or lower.

¹¹ The rate for financial year 2026-2027 was estimated in line with Sydney Water's and NSW Treasury's guidelines. This assumes that the appropriate escalation rate will be 2.6%. The actual rate will be calculated in line with the appropriate guidelines before registration.

4 Infrastructure contribution calculation

The main elements of the 2018 Determination pricing method are shown in Figure 4. The rest of this section presents the results of applying this method.

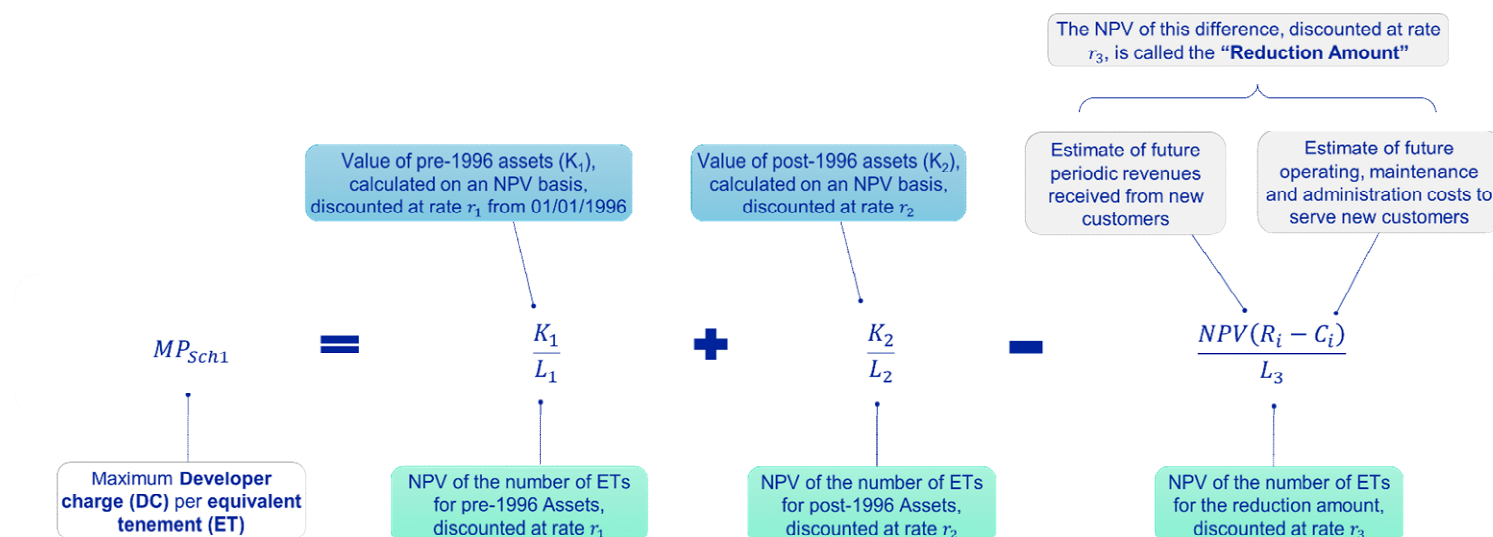


Figure 4-1 The 2018 Determination infrastructure contribution pricing method

Note: for this DSP, one ET = 0.105 hectares, so, each hectare will be charged as 9.52753 ETs.

4.1 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 6.2) of this document.

Table 4-1 Inputs to the infrastructure contribution calculation model

Input parameter	Value
Base Year	2026-27
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)	4.1%
Relationship between hectares of developable land and equivalent tenements (ETs)	9.528 ETs per hectare

4.2 Infrastructure contribution price elements

Table 4-2 Charge for pre-1996 assets

(A) Present value of pre-1996 assets (K₁)	\$0
(B) Present value of equivalent tenements (L₁)	21,181
(C) Capital charge for pre-1996 assets (A) / (B)	\$0

Table 4-3 Charge for future assets

	Un-commissioned	Commissioned
(A) Present value of post-1996 assets (K₂)	\$2,221,156,077	\$0
(B) Present value of equivalent tenements (L₂)	19,332	19,332
Capital charge for assets (A) / (B)	\$114,895 / ET (which is \$1,094,665 / developable hectare)	\$0

Table 4-4 Net operating result

(A) Present value of revenue (R)	-\$356,279,584
(B) Present value of operating costs (C)	\$546,776,750
(C) Present value of ETs (L₃)	19,332
Net operating result (A) + (B) / (C)	-\$9,854 / ET (which is -\$93,884/ developable hectare)

4.3 Total Infrastructure Contribution Price

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

Table 4-5 Components of the infrastructure contribution price, \$ per ET and per developable hectare (\$2026-27)¹²

(A) Stormwater headworks	(B) Pre-1996 assets	(C) Post 1996 assets	(D) Net operating result	(A) + (B) + (C) – (D) Infrastructure contribution
\$0	\$0	\$114,895/ ET (\$1,094,665 / developable hectare)	-\$9,854 / ET (-\$93,884 / developable hectare)	\$124,749 / ET (\$1,188,548 / developable hectare)

Note. The above negative net operating result is due to operating costs exceeding forecast revenue. This result increases rather than decreases the contribution. See section 6.2.18 for more detail.

¹² The rate for financial year 2026-2027 was estimated in line with Sydney Water's and NSW Treasury's guidelines. This assumes that the appropriate escalation rate will be 2.6%. The actual rate will be calculated in line with the appropriate guidelines before registration.

5 Asset Description

5.1 Future assets providing services to the DSP area

This section shows the value of future assets to be constructed to provide services to new development. Consistent with the methodology identified in the 2018 determination, asset values are shown in the year of commissioning (ie, not as a cashflow).

Due to the design of the integrated scheme, assets are required to service the whole region 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 graph shows the total yearly cost of delivering assets which have been attributed to the Infrastructure Contribution calculation. This includes all costs of planning, construction and establishment and industry standard risk-based contingencies. The details of the assets to be delivered each year can be found in the IC Calculation spreadsheet placed on exhibition with this document.

Disclaimer: Asset Costs in this section and the calculation spreadsheet are 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. These forecast costs represent average rates and the real costs may be more or less. 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.

An overview map of the scheme assets is provided below in Figure 5-2 Aerotropolis Initial Precincts Integrated Stormwater and Recycled Water Scheme Plan. More detailed asset maps for the stormwater and recycled water components are available via the following links:

- [Wianamatta-Badgerys Catchment Stormwater Scheme Map](#)
- [Cosgroves Catchment Stormwater Scheme Map](#)
- [Duncans-Mulgoa Catchment Stormwater Scheme Map](#)
- [Aerotropolis Recycled Water Network Scheme Plan](#)

This section shows the value of future assets (including capital uplift) constructed to provide services to new development. Consistent with IPART's pricing method, asset values are shown in the year commissioning (ie, not as a cashflow). For example, in 2031, the recycled water reservoirs and trunk infrastructure will be commissioned although the cashflow for delivery will also occur in prior years. As noted above, future assets are limited to those likely to be commissioned inside the next 30 years.

The value and timing of asset commissioning beyond 30 years is more uncertain, and if further investment is needed after 30 years this will be captured in a future review of this DSP.

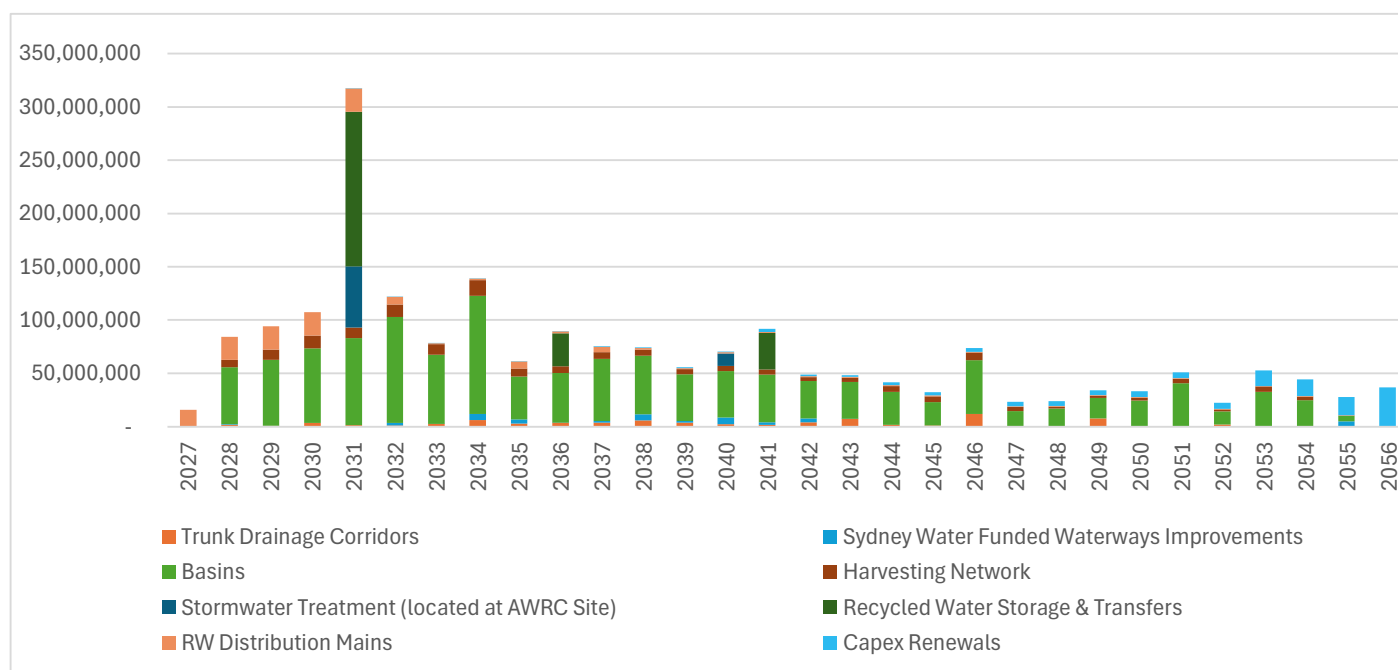
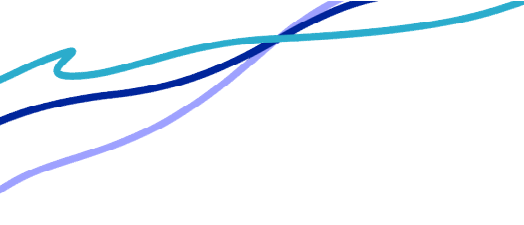
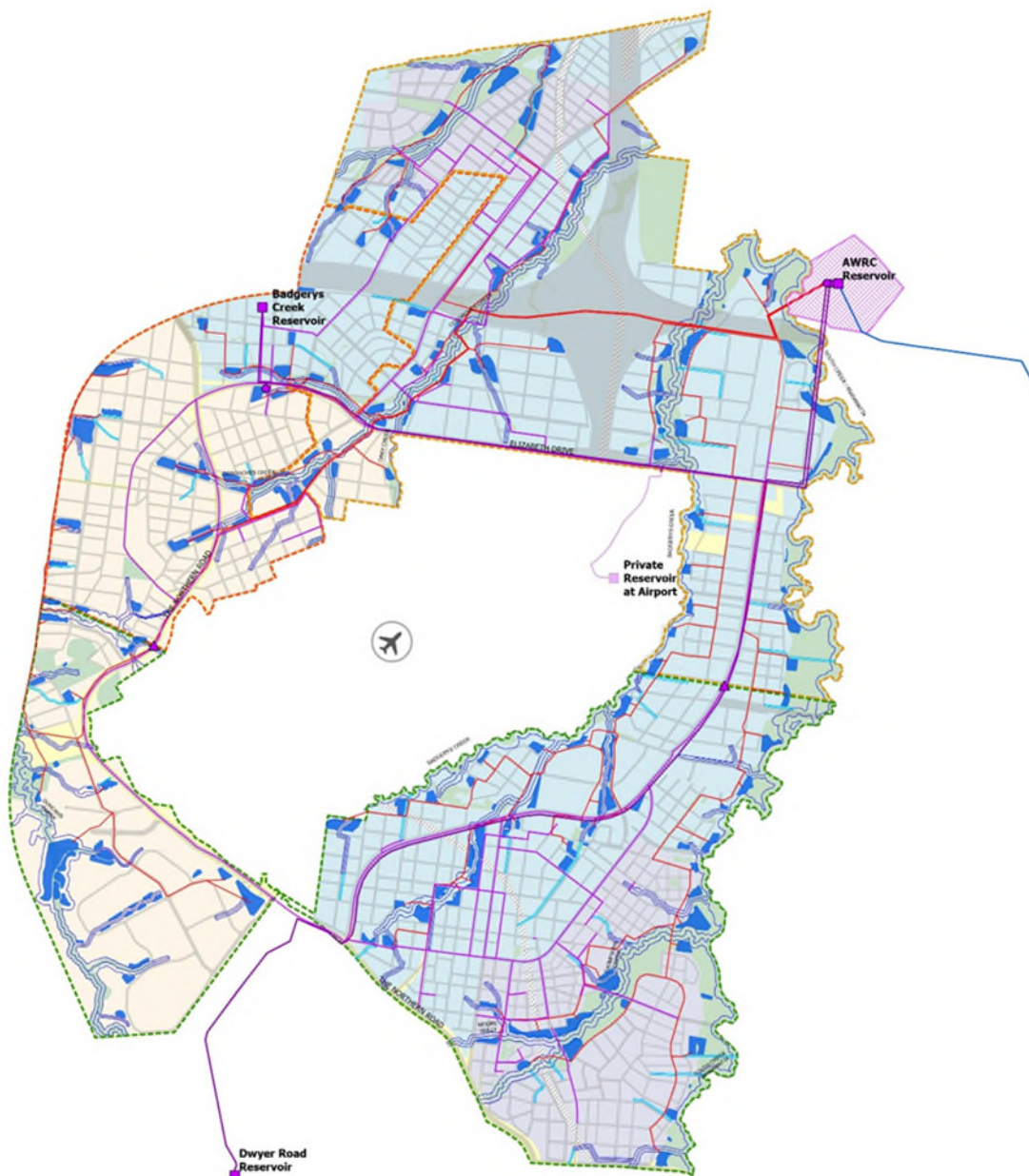


Figure 5-1 Future Un-commissioned Assets (Post-1996 assets) in the Aerotropolis Precincts DSP Area

The infrastructure contribution price in this DSP will help to fund delivery of the following assets:

- **Trunk Drainage Corridors:** The trunk drainage corridors comprise 143 m of 10m wide corridors, 6,509 m of 20m wide corridors, 9,349 m of 25 m wide corridors, and 152 m of 40 m wide corridors.
- **Sydney Water Funded Waterways:** Sydney Water-funded waterways include 14,140 m² allocated to dam dewatering works, 86,780 m² for waterway improvements, 28,800 m² for protected waterways, and 75,410 m² for waterway realignment and recreational outcomes.
- **Basins:** The Aero Project includes 184 basins, which together occupy approximately 252 hectares.
- **Harvesting Network:** The harvesting network includes 97,690 m of pressure mains, 81 air valves, 81 scour valves, 272 hydrants, and 93 section valves.
- **Stormwater Treatment:** Stormwater treatment infrastructure located at the AWRC site includes a 100 m² administration building, a 200 m² plant room, a 400 m² switchroom, a feed pump station, and other associated stormwater treatment assets.

- 
- **Recycled Water Storage & Transfers:** Recycled water storage and transfer infrastructure includes two recycled water reservoirs at Badgerys Creek, two recycled water reservoirs at Dwyer Road, three pump stations, and approximately 28,500 m of pressure mains.
 - **Recycled Water Distribution:** The recycled water distribution network includes approximately 473,063 m of pressure mains.



Major TfNSW Corridors & Indicative Roads

Land Zoning

- Agribusiness (AGB)
- Enterprise (ENT)
- Environment and Recreation (ENZ)
- Major Infrastructure Corridor (MIC)
- Mixed Use (MU)
- Infrastructure (SP2)

Proposed Trunk Drainage

- Naturalised Channel Alignment
- Waterways with Riparian Corridor

Proposed Treatment Systems

- Regional Stormwater Harvesting Basins

Recycled Water Supply Zones

- Booster Zone
- Badgerys Creek RW Zone
- Dwyer Road RW Zone

Proposed Reticulation Infrastructure

- Indicative Stormwater Harvesting Main
- Advanced Water Recycling Centre
- Indicative Recycled Water Pumps
- Indicative Recycled Water Reservoirs
- Indicative Boundary Valves
- Indicative Recycled Water Transfer Mains
- Indicative Recycled Water Trunk Mains (>DN200)
- Indicative Drinking Water Top Up Pipeline from Cecil Park Reservoir



Source: Sydney Water, Aurecon, Civille, LPI, DCCEEW, ESRI
Date: 4/03/2026



Scale: 1:45,000 Size: A3
0 500m
Projection: GDA 1994 MGA Zone 56

WESTERN SYDNEY AEROTROPOLIS INITIAL PRECINCTS INTEGRATED STORMWATER AND RECYCLED WATER SCHEME PLAN

MARCH 2026

Sydney
WATER

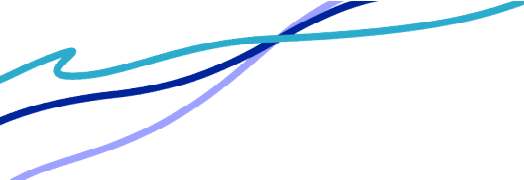
Figure 5-2 Aerotropolis Initial Precincts Integrated Stormwater and Recycled Water Scheme Plan

6 Appendices

6.1 Appendix A - Minimum content of documentation for public exhibition

Table 6-1 Guide to required DSP content in this document

2018 Determination 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 3.1
a clear and accurate description of the DSP Area to which the DSP applies, including:	
(1) its size;	Section 3.1, and
(2) the basis for defining its boundaries; and	Section 2.5
(3) reference to other DSPs where there is an overlap or co-usage of Assets	See also the DSP methodology Appendix 7.2
demographic and land use planning information including:	
(1) the current residential population in the DSP Area;	Section 3.2
(2) the estimated Equivalent Tenements in the DSP Area as at 1 January 1996;	Section 3.2
(3) the projected population over a period of 30 financial years starting from the financial year in which the DSP was [is expected to be] registered with IPART; and	Section 3.2
(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	Infrastructure contribution calculation spreadsheets and Figure 3.3
timing of works in the DSP Area including:	
(1) completed capital works; and	Infrastructure contribution calculation spreadsheets
(2) proposed capital works	(summary in section 3.3)
the standards of service to be provided to customers in the DSP Area and design parameters of Assets	DSP methodology Appendix 6.2
the calculated maximum price under clause 1 of Schedule 1 (<i>MPSch1</i>), and the information used to calculate that price, including:	Section 5
(1) the future periodic revenues expected to be received from new customers in the DSP Area each financial year;	Infrastructure contribution calculation spreadsheets
(2) the charges used for the calculation of those revenues;	
(3) average water usage figures used for the calculation of those revenues;	



(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	See also the DSP methodology
(5) indexation principles and parameters used for that calculation	Appendix 6.2
a description, or reference to a background document containing the description, of Pre-1996 Assets and Post-1996 Assets in the DSP Area including:	Section 5
(1) the date (or forecast date) of the commissioning of each Asset;	Infrastructure contribution calculation spreadsheets
(2) the size/length of each Asset;	
(3) the actual efficient cost of each Asset (where applicable);	
(4) the unit cost of each Asset (if applicable);	
(5) the MEERA valuation of each Asset (if applicable);	
(6) the total capacity of each Asset expressed in Equivalent Tenements (if applicable); and	
(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	

6.1.1 DSP Exhibition

The DSP was exhibited for a period of 30 working days from Tuesday 28 April to 5pm 9 June 2026. 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 not been responded to individually, some have been provided with additional information where possible. Sydney Water may use information from submissions 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).

6.2 Appendix B – How we have applied the 2018 Determination 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 the determination.

6.2.1 Our application of the 2018 Determination pricing method

The 2018 Determination 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 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 development¹³.

The 2018 Determination 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 the 2018 Determination and the principles for infrastructure contributions identified by the NSW Productivity Commission¹⁴:

- Simple
- Consistent
- Transparent
- Efficient
- Certain.

6.2.2 The 2018 Determination infrastructure contribution price methodology

The method we use for setting infrastructure contribution prices has been regulated since 1995¹⁵, and has been reviewed and updated by IPART several times. The most recent review was completed in 2018 when

¹³ 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.

¹⁴ NSW Productivity Commission (2020) *Review of infrastructure contributions in New South Wales – Final Report*.

¹⁵ Government Pricing Tribunal (1995) *Sydney Water Corporation Prices of Developer Charges for Water, Sewerage and Drainage Services*.

IPART issued a new determination¹⁶ for calculating infrastructure contribution prices for water, wastewater and stormwater services.

The main elements of the pricing method are shown in

Figure 6-1 Figure 6-6-2

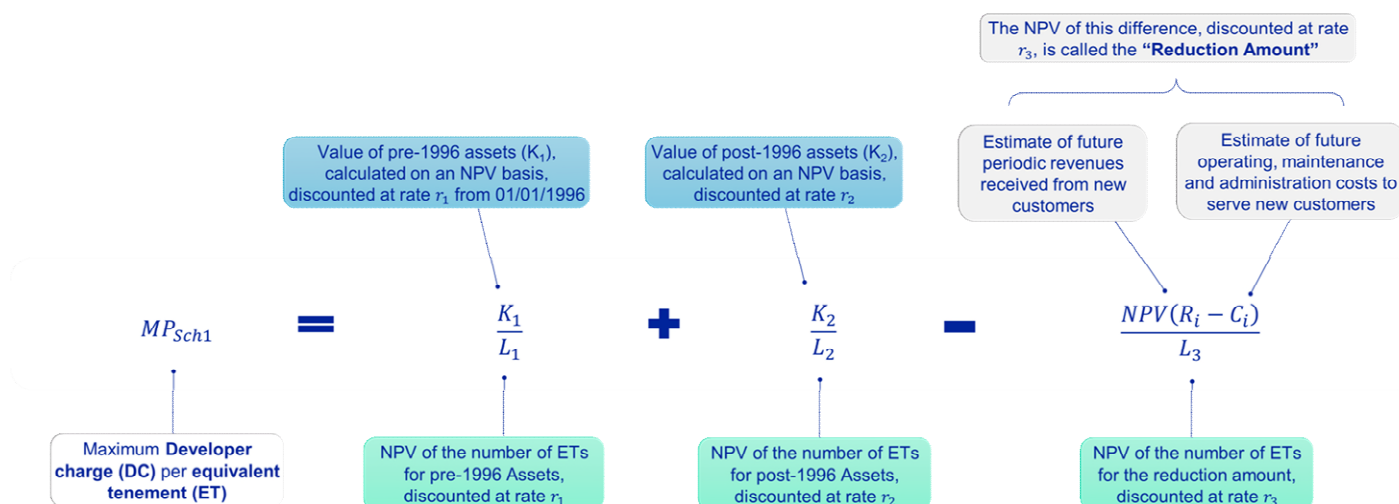


Figure 6-1 Figure 6-6-2 The 2018 Determination infrastructure contribution pricing method

Note: for this DSP, one ET = 0.105 hectares, so, each hectare will be charged as 9.52753 ETs.

Some of the key features of the method include:

- 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.

¹⁶ IPART (2018) *Maximum prices for connecting, or upgrading a connection, to a water supply, sewerage, or drainage system.*

6.2.3 We are not able to implement other pricing methods

Sydney Water aims to be easy to deal with and provide value for money for all customers, including developers. From time to time, stakeholders have proposed we use other pricing methods and/or have made suggestions about how we might implement the 2018 methodology. However, 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.

6.2.4 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 functions¹⁷:

- 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 Licence¹⁸ 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

¹⁷ Sydney Water Act, s 12

¹⁸ <https://www.sydneywater.com.au/content/dam/sydneywater/documents/operating-licence.pdf>

higher pressure. Table 6-2 shows the water network standards of service which are also relevant to design and operation of recycled water networks.

Table 6-2 Operating Licence standards that may be affected by recycled water networks

2019-2023 Licence standard	Effect of recycled water network	Example costs
Water pressure 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 System re-configuration New reservoirs
Water continuity 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)

6.2.5 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 3.2 and 6.2.10. 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.

6.2.6 Stormwater Scheme Principles

The Integrated Stormwater Scheme for the Aerotropolis Precincts 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 and consultation process in 2022. Full details and examples of the principles are available on Sydney Water's website at

<https://www.sydneywater.com.au/content/dam/sydneywater/projects-in-your-area/documents/aerotropolis/stormwater-management-framework-for-aerotropolis-and-mamre-road-precincts.pdf>

The principles are:

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. All landowners will receive an equivalent level of service.
7. Infrastructure designed to accommodate run-off from non-developable land within the stormwater scheme boundary will be funded by Development Servicing Plan
8. Stormwater scheme infrastructure required to service existing urban land within the scheme will not be funded by the Development Servicing Plan.
9. Infrastructure to service future development external to the stormwater scheme will not be funded by the Development Servicing Plan
10. Environmental works downstream of stormwater schemes will be funded where upstream development is the cause of the problem.
11. Sydney Water or the local council will meet the cost of improved stormwater infrastructure works for existing development.
12. Development Servicing Plans and associated stormwater schemes will be reviewed at least once every five years.
13. A robust consultation process will govern the creation of stormwater schemes.
14. Development Servicing Plans may be adjusted for innovative works that benefit the entire stormwater scheme.
15. Stormwater schemes will include property acquisition costs consistent with NSW Government standards and practices.

6.2.7 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 the 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 the methodology. Given the likely differences in cost to provide trunk drainage services and the timing of development between precincts in the Aerotropolis, we calculated and exhibited the Mamre Road stormwater DSP separately from the remaining Aerotropolis precincts. The advantages of adopting two DSPs with smaller boundaries are:

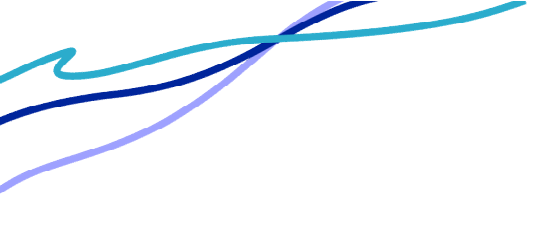
- Costs and timing of infrastructure are more certain for each DSP as development forecasts are prepared closer to when the DSP is registered.
- Smaller boundaries provide greater location-specific signals for the cost to provide the service (less averaging within the boundary)

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 over the longer term. This means that should development become significantly delayed from the forecast used to calculate a 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.

6.2.8 Equivalent Tenements definition

The infrastructure contribution price is the amount that must be paid by one equivalent tenement (ET). The 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'. As the 2020 and 2025 Retail Price Determinations¹⁹ do not specify any values for an ET, Sydney Water must define this for each DSP.

¹⁹ IPART (2018) and (2025) *Sydney Water Corporation Maximum prices for water, sewerage, stormwater drainage and other services from 1 July 2020 and Sydney Water Corporation Maximum prices for water, wastewater, stormwater drainage and other services from 1 October 2025*



The intent of the 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 available²⁰, as opposed to Sydney-wide averages.

6.2.9 Historic and future stormwater ETs

There are two other stormwater DSPs at this time, Mamre Road Integrated and Rouse Hill.

Both these stormwater DSPs define ETs as being proportional to the developable area of a property. This is 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 this DSP and all future greenfield stormwater DSPs.

6.2.10 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 referrals²¹,
- precinct-specific forecasts provided by the Department of Planning and/or local councils.

For this DSP, the precinct is greenfield a mix of residential and 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 zero²².

6.2.11 Future stormwater ET forecasts

For the Aerotropolis Integrated Stormwater DSP area, the land use is a mix of residential and non-residential. In both cases growth is measured as the change in total net developed hectare, not the change in the number of properties or ETs.

Potable water and wastewater DSPs make use of forecasts of the number of new properties to estimate demand in future years. For all land use types in the Aerotropolis, the number of new properties is not necessarily a good predictor of the underlying demand for stormwater services. The demand for stormwater services is more closely related to the total developed area.

²⁰ See, for example, Schedule 5, clause 5(b)

²¹ 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.

²² This information is provided for clarity and as a requirement of the 2018 Determination.

6.2.12 Excluded assets

The 2018 Determination 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. The 2018 Determination requires²³ 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, the 2018 Determination 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 if:

- (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.

6.2.13 Commissioned assets

The infrastructure contribution pricing method requires²⁴ that all commissioned assets must be valued using a valuation method known as the Modern Engineering Equivalent Replacement Asset (MEERA). As this is a greenfield DSP, there are no commissioned assets.

6.2.14 Un-commissioned assets

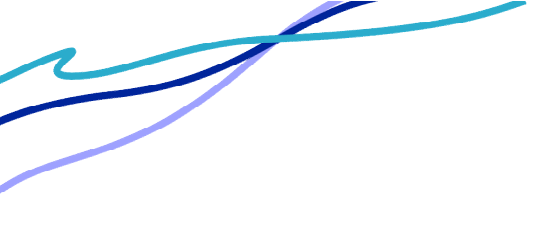
The infrastructure contribution pricing method requires²⁵ that un-commissioned assets must be valued at their efficient cost, which is essentially equivalent to MEERA values. Section 6.2.4 of this report describes the service standards we are required to meet, and the performance criteria we typically use to assess whether our existing assets can cater for current and project demand.

Our planning process (see Figure 6-3) 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

²³ Schedule 7, definition of Excluded Assets.

²⁴ See Schedule 5, clause 2.1.

²⁵ See Schedule 5, clause 2.1.



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).

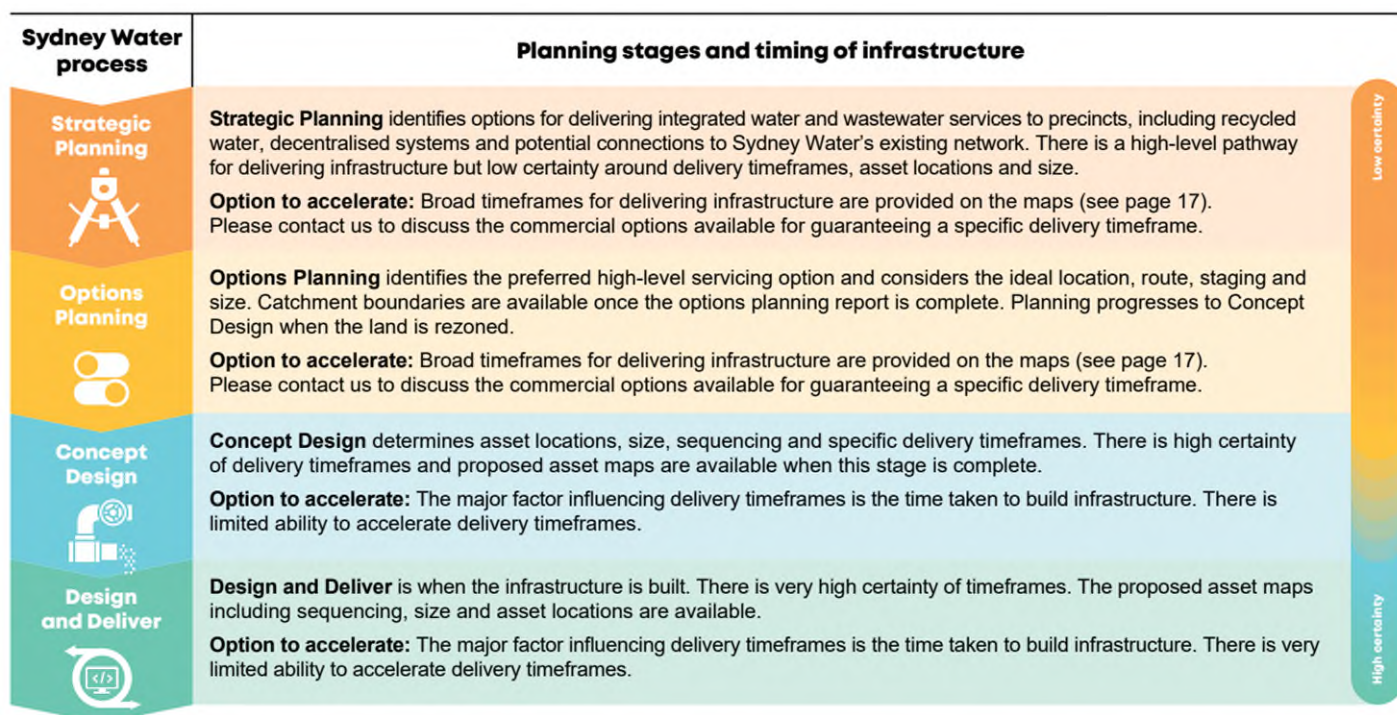
We have used the following data sources to identify future capital expenditure needed to meet new demand due to growth:

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

6.2.15 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 and/or no growth has made a contribution, so we have allocated 100% of the cost of all assets to this DSP. 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 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 the 2018 Determination method, we measure capacity used based on ultimate or final demand).



Source: Sydney Water Growth Servicing Plan 2025-2030

Figure 6-3 Planning and delivery of new infrastructure to serve growth

6.2.16 Choice of investment horizon

The 2018 Determination requires²⁶ 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.

²⁶ See Schedule 4, Clause 1.

6.2.17 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.

The 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.

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.

6.2.18 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 residential & non-residential properties are levied in 7 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:

- Approximately 73% of the total developed area will comprise large and very large lots and will therefore be subject to the stormwater charges applicable to the 1,001–10,000 m² and 10,001–45,000 m² charge bands.
- The remaining 27% of the total developed area will comprise smaller lots for residential use and will be subject to the houses and apartments stormwater charge.

For recycled water usage charges, in 2020 and in 2025, we proposed, and IPART accepted us setting prices at 90% of the drinking water price. The model used to calculate the Infrastructure Contribution charge assumes that the recycled water network will be charged with drinking water until 2031. In this stormwater

DSP, we have used the following recycled stormwater usage prices in the calculation of the net operating result.

Table 6-3 Recycled stormwater usage prices for infrastructure contribution modelling, \$2026-27

Price	\$2026-2027
Recycled water usage price (\$/kL)	\$3.03

6.2.19 New connections

Our approach to forecasting new connections is discussed in section 3.2 of this report.

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

6.2.20 Operating Costs

The future operating and maintenance costs for the Aerotropolis 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 2025 retail 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 Aerotropolis Precincts DSP increase in line with development forecasts, as shown in Figure 6-4.

6.2.21 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).

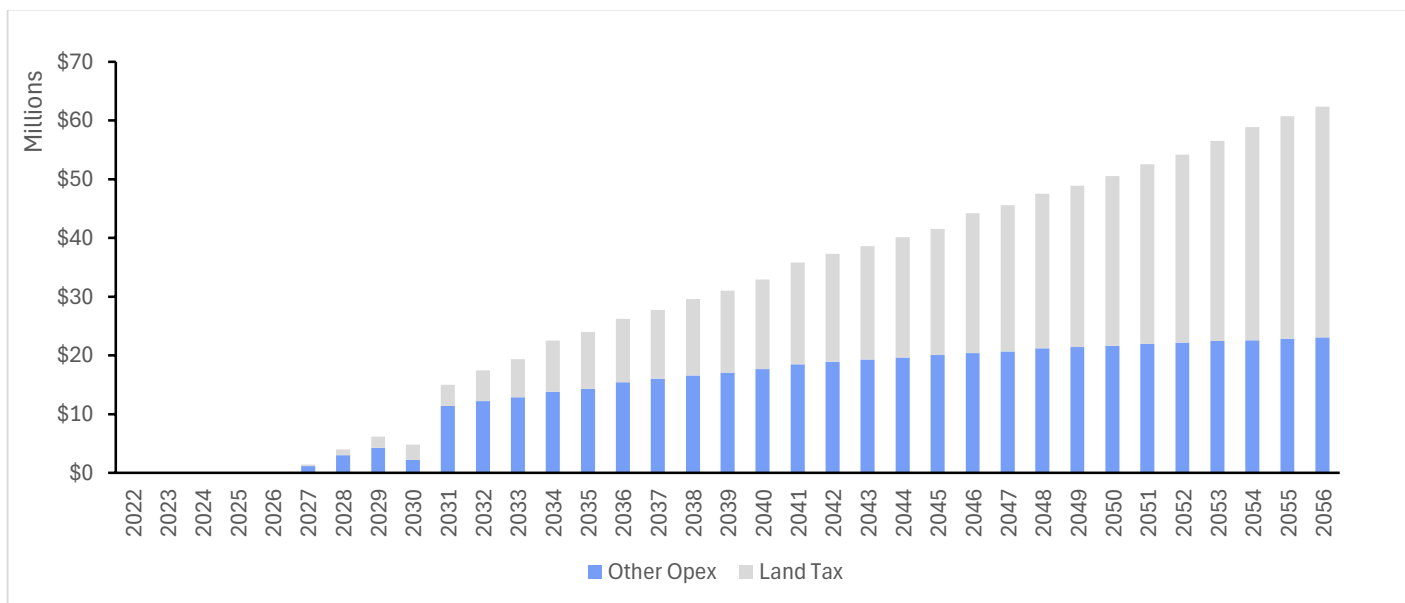
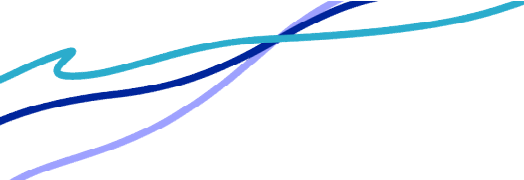


Figure 6-4 Forecast operating expenditure (\$FY27)

Note: The increase in “Other Opex” in 2031 is largely driven by operating costs associated with stormwater treatment and recycled water storage and transfer assets. This aligns with the completion of the third pipe systems and availability of recycled stormwater.



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