Sydney WATER

Your guide to the

# Aerotropolis Draft Integrated Stormwater Scheme

## Duncans Mulgoa

aerotropolisstormwater.mysocialpinpoint.com.au

# 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.

Sydney WATER

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# Executive summary

The Aerotropolis is a once-in-a-generation opportunity to create a thriving, sustainable city.

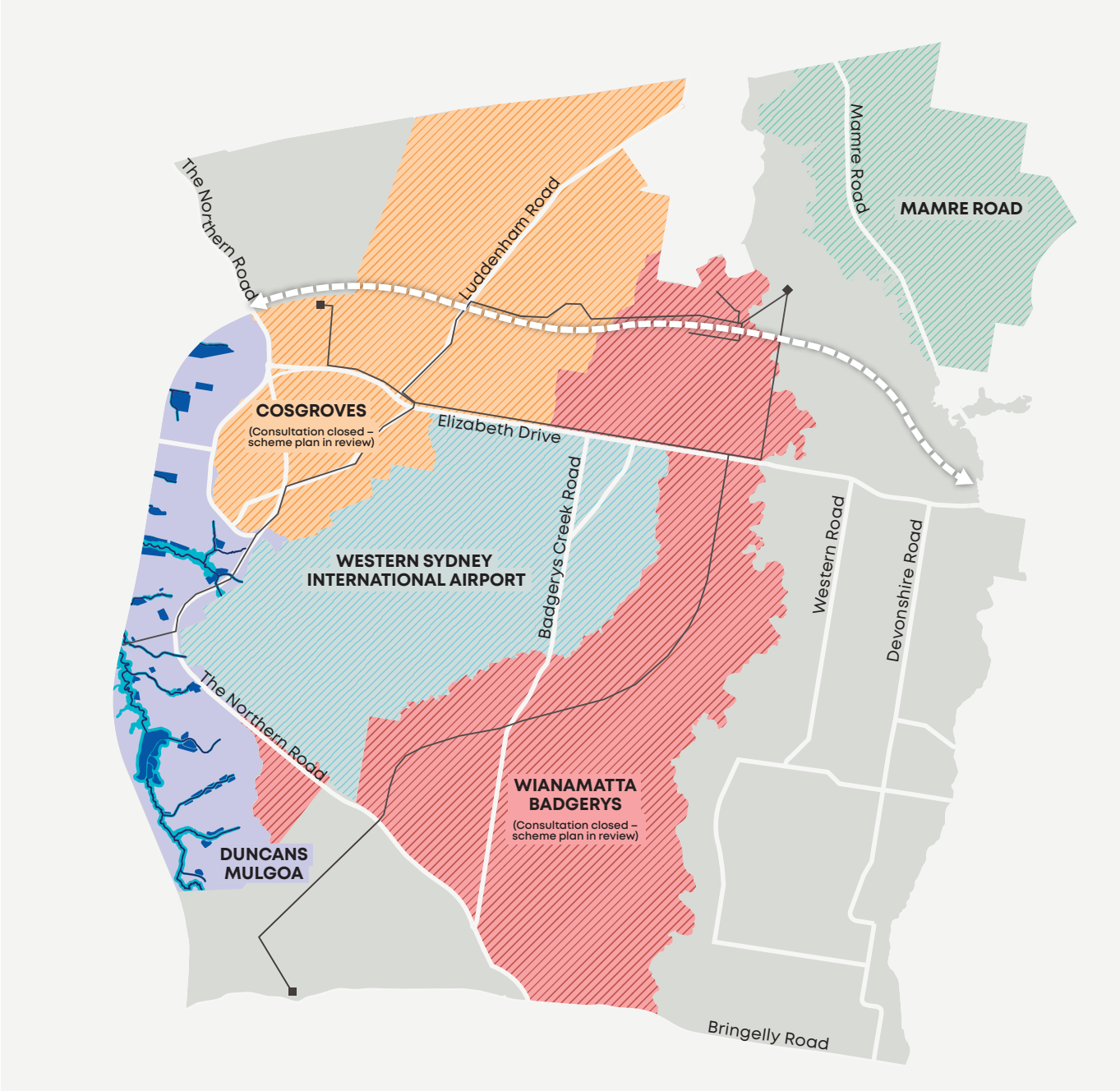
As the Regional Stormwater Authority for the Aerotropolis, Sydney Water is responsible for delivering, managing, and maintaining the regional stormwater network on behalf of the NSW Government. Separately, we're working to deliver drinking water, wastewater, and recycled water services.

Building stormwater infrastructure will require significant investment over the coming decades. To keep pace with development, we will build our stormwater infrastructure in stages between now and 2056.

This document gives an overview of the Aerotropolis Draft Integrated Stormwater Scheme Plan for Duncans Mulgoa, which covers a large area of the Agribusiness Precinct. The previous stormwater scheme plans for Wianamatta Badgerys & Cosgroves are currently being finalised following the recent public exhibition period. The scheme plan for Duncans Mulgoa shows a draft conceptual layout of infrastructure.

## Key facts about the Aerotropolis Draft Integrated Stormwater Scheme Duncans Mulgoa

| | |
|---|---|
| | **The Duncans Mulgoa** scheme services around 1,098 hectares supporting a developable area of 662 hectares. |
| | **Recognising Country**. Managing waterways and drainage lines means caring for Country. Many waterways in Western Sydney have been in private ownership since the late 1700s. Sydney Water is working with Traditional Custodians on management partnerships. |
| | **Meeting customer expectations of waterway health**. The schemes protect waterways, which includes valued local species, recreation and downstream commercial fisheries. Waterway health is a high priority for our customers. |
| | **New supply of water secured from within the city**. The scheme is projected to harvest 1.9 GL/yr of stormwater that will contribute to the 10.4GL/yr of total recycled water provided to the Aerotropolis for non-drinking water purposes. |
| | **Embedding irrigation supply across new urban areas**. Extreme heat conditions are projected to worsen. The schemes will provide a dedicated, climate resilient water supply for vegetation to support urban cooling strategies. |
| | **Preparing for Sydney's digital future**. By providing access to cost-effective recycled water, the schemes will make the Aerotropolis a more attractive location for data centres, which need a lot of water to keep their systems cool and running efficiently. |




- Duncans Mulgoa
- Wianamatta Badgerys (Consultation closed)
- Cosgroves (Consultation closed)
- Mamre Road
- Western Sydney International Airport
- Future M12 Motorway
- Waterways with riparian corridor
- Stormwater harvesting basins
- Advanced Water Recycling Centre
- Indicative recycled water reservoir
- Indicative recycled water transfer main
- Aerotropolis area

*Draft map for consultation – indicative only and subject to change.*

# Our approach

We're taking a holistic approach to how we manage water in the Aerotropolis, by using Integrated Water Cycle Management (IWCM).

IWCM coordinates and considers all elements of water management and urban planning across the scheme areas, recognising and celebrating cultural heritage, protecting waterway health, prioritising sustainable water supplies and helping to cool and green Western Sydney.

Taking this regional approach allows infrastructure to be placed efficiently in the scheme areas. It will minimise the amount of stormwater infrastructure required on development sites, ultimately maximising developable land.

The schemes have been designed in line with the Stormwater Principles, which were developed in consultation with government, industry and community. For more information on the Stormwater Principles, visit the Sydney Water resources and policies section of this document.

## Recognising and celebrating Country

At the heart of the Aerotropolis is Wianamatta, Western Sydney's longest freshwater stream, located in Dharug Country. In the Dharug language, Wianamatta means 'Mother Place,' reflecting its cultural and environmental significance.

This waterway is central to the area's identity and heritage, and its preservation plays a crucial role in maintaining the natural environment and the cultural practices of the Dharug Community. If left unprotected, urban growth will degrade this vital waterway, but with the right planning and ongoing involvement from Traditional Custodians it can become one of the city's greatest assets.

## Protecting waterway health

Wianamatta's ecosystems are fragile and unique, home to a range of unique species that rely on healthy waterways including populations of platypus and native fish. To protect them, we have followed the Dharug People's approach of Letting Country be Country, shaping the layout and structure of the of the schemes around existing waterways. Where additional treatment is required, we've prioritised natural treatment systems over concrete pipes and channels.

To make sure that the schemes are meeting environmental outcomes, we've designed the system using locally specific waterway health targets for pollutant reduction and flow. For more information on these targets, see the Sydney Water resources and policies section of this document.

## Sustainable water supply

To meet the waterway health targets for Wianamatta, some of the stormwater runoff needs to be harvested for reuse.

Most stormwater schemes depend on rainfall—but in Western Sydney, where the weather is dry and droughts are becoming more frequent, we need to do things differently. Since rain isn't always reliable, the schemes will add recycled water to the system when there's not enough rainfall.

This means that even when other parts of Sydney are under drought restrictions, water supply in the Aerotropolis will be more secure. This makes it more appealing to high value industries that need a large secure water source, such as data centres.

## Cooling and greening Western Sydney

In the future, Western Sydney will experience more frequent and prolonged heatwaves which will put pressure on its community, natural environment and economy. To help manage urban heat, a blue-green grid of parklands and waterways is proposed that will provide cooling and amenity to communities that live and work in the area.

To work, the blue-green grid needs a climate independent water supply to stay cool and green. The schemes, fed by stormwater and recycled wastewater will provide irrigation to parklands and street plantings throughout the Aerotropolis in the hottest and dryest times when we need it the most.

Naturalised stormwater treatment is part of the scheme, managing stormwater and providing cooling, greening, habitat and community amenity.

# About the stormwater infrastructure

The Aerotropolis is a chance to rethink how we manage stormwater. By consolidating infrastructure, integrating it with roads, and co-locating it with open space, we can create multi-functional areas. This decreases infrastructure costs and reduces the amount of developable land that would be required for stormwater management.

Our approach was developed with local stakeholders, Traditional Custodians, other NSW Government Agencies and the Independent Pricing and Regulatory Tribunal (IPART).

As part of the regional approach to stormwater management, Sydney Water needs to deliver a variety of infrastructure.

## Natural creeks

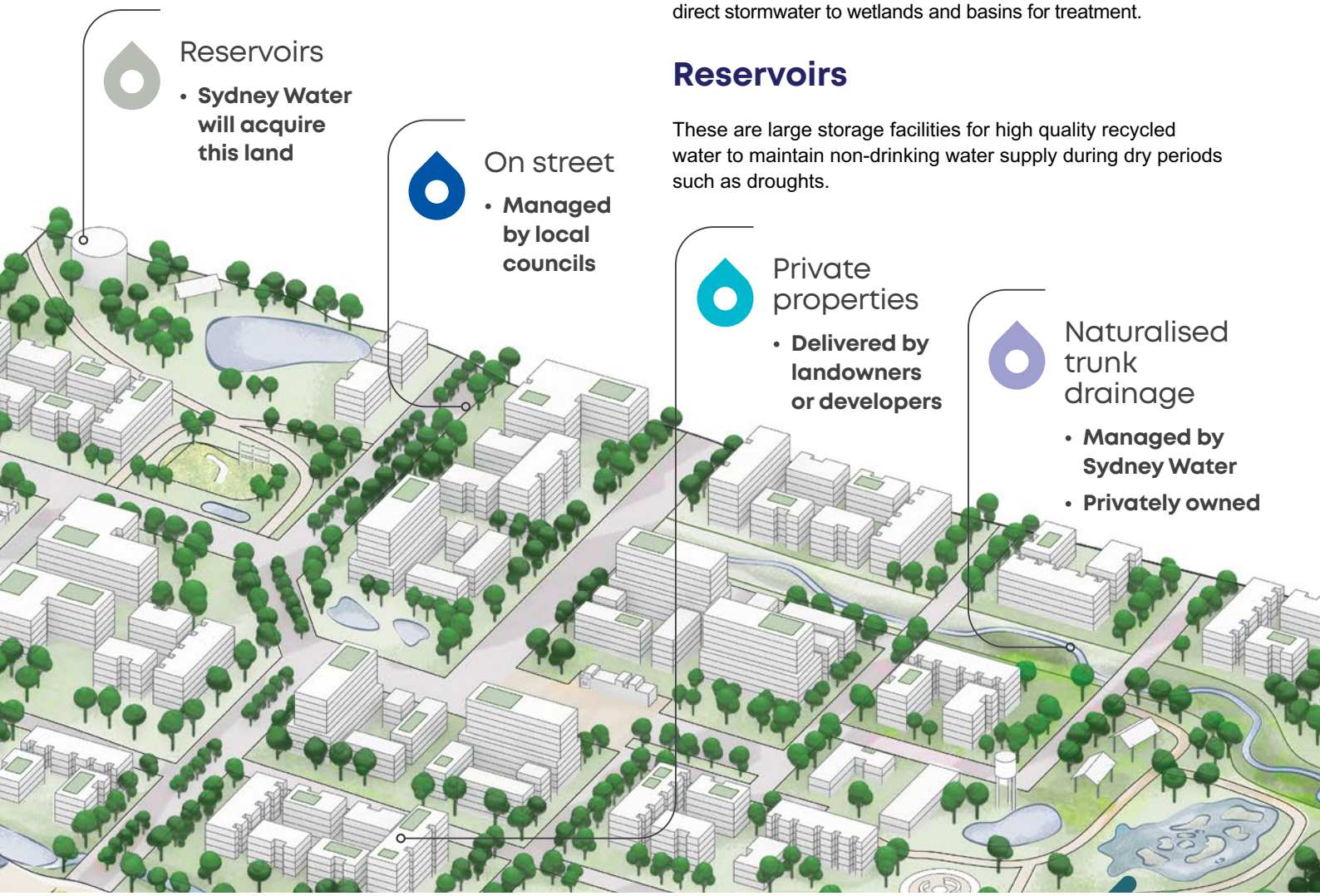
Healthy natural creeks retain water in the landscape and protect the ecological, social and cultural values in the Aerotropolis. The regional stormwater system has been designed to work with nature—using the area's existing waterways as part of the network. Some natural creeks may need to be rehabilitated. The creeks will work alongside the other elements of the system to safely move stormwater to where it is needed.

## Naturalised trunk drainage channels

Naturalised trunk drainage channels are waterways designed to replace concrete pipes and channels. They are designed to mimic the form of natural creeks, as well as creating green space and walking paths for the community. These channels direct stormwater to wetlands and basins for treatment.

## Reservoirs

These are large storage facilities for high quality recycled water to maintain non-drinking water supply during dry periods such as droughts.



## Wetlands and stormwater basins

Stormwater is collected as it runs off roads, rooftops and other hard surfaces and flows into naturalised trunk drainage channels and creeks.

It is then directed into stormwater basins and constructed wetlands where it is filtered, treated, and stored for reuse in irrigation, industrial processes, and other non-drinking water applications.

As well as being designed to treat stormwater, wetlands provide habitat for a wide range of animals and plants. They are also culturally significant for Aboriginal people and provide a strong connection to Country.

These will be strategically placed to efficiently manage local stormwater while avoiding high-value existing bushland and minimising potential impacts on future development.

## On street measures

On public roads and streets, stormwater is managed using drains, kerbs, and pits that connect to natural channels or creeks. Street trees will be passively irrigated—where rainwater is directed to tree pits so the trees can soak it up naturally, helping to keep the street cooler and greener.

## Private properties

On individual lots, basic stormwater controls like onsite detention (to slow down runoff) and gross pollutant traps (to catch litter and debris) are needed. There are minimum requirements for things like how much of the land lets water soak through (called perviousness).

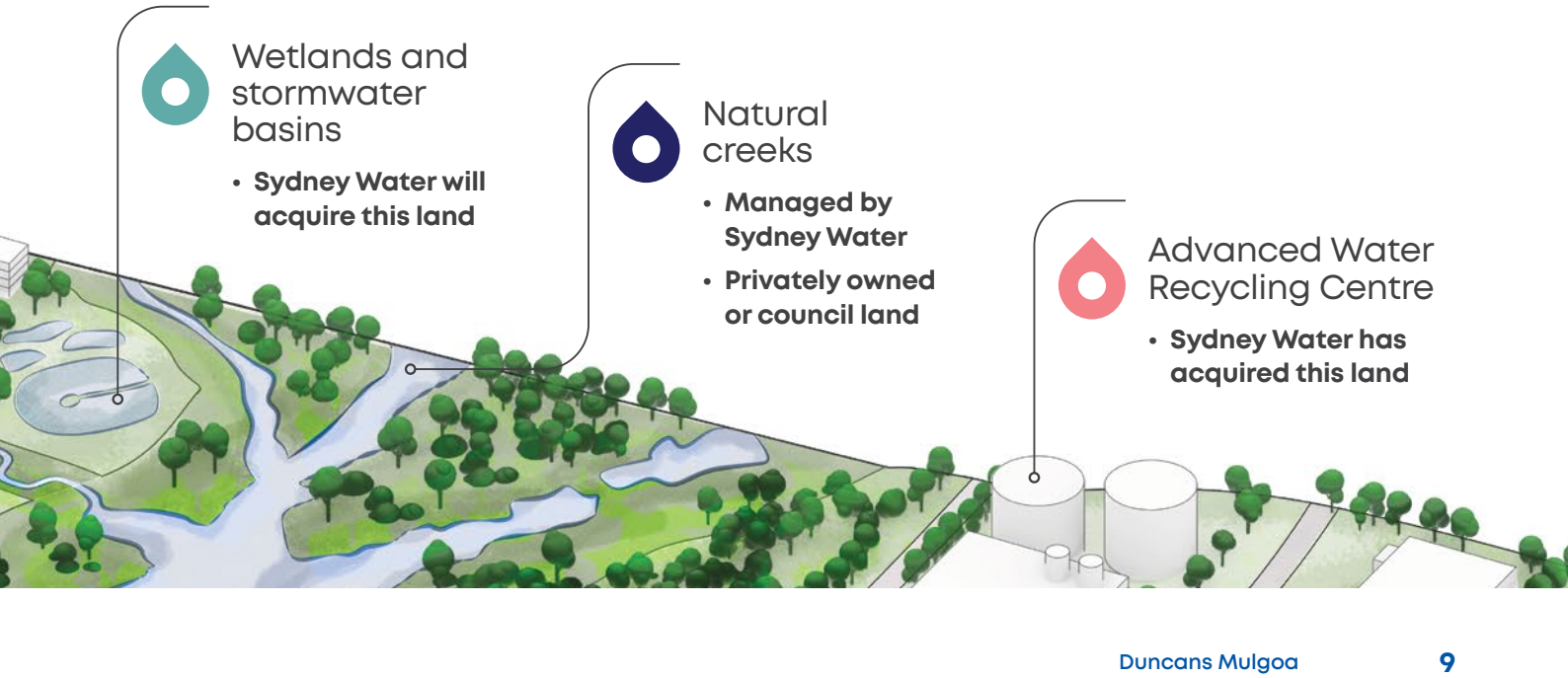
Individual lots won't need rainwater tanks or bioretention systems that filter stormwater, because the regional stormwater system will do this.

## Stormwater mains and pumping stations

We'll still need to deliver stormwater pipelines that are fed by gravity or pumped to supply all areas within the Aerotropolis. These will connect the wetlands and stormwater basins, allowing us to move harvested stormwater to where it is needed across the Aerotropolis.

## Advanced Water Recycling Centre (AWRC)

The AWRC will collect and treat wastewater to a high quality for reuse. It will also recover resources like energy and nutrients, helping the environment. During dry periods, recycled water will be used to top up the harvested stormwater supply.



# Costs and responsibilities

## Land for stormwater infrastructure

The *Western Parkland City State Environmental Planning Policy 2021* (SEPP) identifies the land required for regional stormwater infrastructure. Sydney Water will acquire parts of this land, if and when needed, in stages as development progresses.

All land acquisition will follow the *Land Acquisition (Just Terms Compensation) Act 1991*, ensuring a fair and transparent process for landowners. We're not yet in a position to speak with individual landowners about the timing of land acquisition. This will only happen once plans are finalised and funding is approved, in alignment with the Stormwater Scheme Principles.

## What does this mean for landholders and developers?

The Aerotropolis Draft Integrated Stormwater Schemes outline how stormwater will be managed to support sustainable development and environmental health. If you own or develop land in the area, these schemes may affect your property.

There may be impacts to:

- **Use of private land** – some private properties may need to accommodate stormwater infrastructure, such as naturalised trunk drainage channels or wetlands. This could impact future land use–we'll reduce this as much as possible.
- **Development requirements** – Sydney Water will meet the Aerotropolis' stormwater requirements on behalf of developers. On-lot stormwater requirements will be significantly reduced, allowing greater use of developable land.
- **Opportunities for stormwater reuse** – access to stormwater harvesting infrastructure may provide cost-effective and sustainable water solutions for businesses and communities.

## How will the infrastructure be delivered and funded?

Once the scheme plans for Duncans Mulgoa and the recently exhibited Wianamatta Badgerys & Cosgroves are finalised, the next step is to draft the Development Servicing Plans (DSPs).

The DSPs will detail the capital and operational and costs of the schemes and set the Stormwater Infrastructure Contributions amount. Private and local stormwater infrastructure will not be covered by this DSP.

## Who's responsible for the infrastructure?

Once the schemes are finalised, the delivery and ongoing management of stormwater assets for the Aerotropolis will be a shared responsibility. Key roles are outlined in the following table.

| Infrastructure type | Delivered by | Managed by |
|---|---|---|
| **Private**: on-lot measures such as pervious areas, gross-pollutant traps, on-site detention and on-lot drainage. | Landowner/ Developer | Landowner/ Developer |
| **Local**: street trees, street drainage and local drainage mains. | Developer or Council | Council |
| **Regional**: trunk drainage channels and wetlands, stormwater harvesting, treatment and distribution | Sydney Water or Developer | Sydney Water |

Where Sydney Water's regional infrastructure is delivered by a developer, it must be delivered in accordance with our requirements and dedicated to Sydney Water once completed. Sydney Water has a Developer Works Policy that explains this clearly. For more information visit the Resources section of this document.

## When will the infrastructure be built?

Regional stormwater infrastructure has been identified as part of the long-term strategy for the Aerotropolis and will be delivered gradually, to keep pace with development. We expect all infrastructure will be delivered by 2056 in a staged approach.

## Maintaining infrastructure and assets

On completion, we'll establish and deliver a maintenance program for our stormwater infrastructure, as we would for any Sydney Water managed system.

Each part of the system will have different maintenance needs, following industry standards. Regular inspections will ensure everything functions properly, and major work, such as restoring wetlands, may be needed in the longer term.

# Timing

Ongoing engagement with Traditional Custodians, stakeholders, developers and landowners

**November 2020**
Stormwater and Water Cycle Management Study Interim Report published for public consultation

**October 2021**
Open Space Needs Study published and Aerotropolis SEPP amended

**March 2022**
The Western Sydney Aerotropolis Precinct Plans published with the Stormwater and Water Cycle Management Study and Riparian Corridors Assessment

Sydney Water appointed as Regional Stormwater Authority for the Western Sydney Aerotropolis, including the Mamre Road area

**June 2022**
Consultation on Draft Aerotropolis Stormwater Framework and draft Scheme Plan for the Mamre Road area

**October 2024**
Stormwater Developer Works Policy finalised

**December 2024**
Mamre Road IPART efficiency review published and exhibition of Mamre Rd Integrated Stormwater Development Servicing Plan

**March 2025**
Draft Scheme Plan exhibition: Wianamatta Badgerys & Cosgroves areas

**May 2025**
DSP Registration: Mamre Road

**September 2025** WE ARE HERE
Draft Scheme Plan exhibition for Duncans Mulgoa area and Release of Consultation Outcomes Report for Wianamatta Badgerys & Cosgroves Draft Scheme Plans

**Late 2025**
Scheme Plans for Wianamatta Badgerys, Cosgroves and Duncans Mulgoa finalised

**Late 2025 to early 2026**
Exhibition of DSPs for Wianamatta Badgerys, Cosgroves and Duncans Mulgoa

**Early 2026**
DSP registration: Wianamatta Badgerys, Cosgroves & Duncans Mulgoa

**Mid 2026**
NSW Government business case approvals

**From mid 2026 to 2056**
Staged deployment and land acquisition

*Future dates are indicative and subject to change.*

## What we've done so far

Since 2022, we have been working with landowners, government and the development industry to shape the frameworks and principles that guide how we will manage stormwater across the Aerotropolis and Mamre Road areas.

So far, in consultation with industry and stakeholders, we've finalised key documents that will guide development in the area, including Stormwater Scheme Principles and a Developer Works Policy.

Mamre Road Precinct integrated stormwater DSP was approved by IPART in May 2025 and is now in delivery. We also recently exhibited the draft stormwater scheme plans for Wianamatta Badgerys & Cosgroves and have published the Consultation Outcomes Report following the exhibition.

We've now developed the draft stormwater scheme plan for Duncans Mulgoa, and we would like your feedback on this.

## Next steps

Once the scheme plans for Wianamatta Badgerys, Cosgroves and Duncans Mulgoa are finalised, we'll use them to draft Development Servicing Plans (DSPs). Draft DSPs for Wianamatta Badgerys, Cosgroves and Duncans Mulgoa are expected to be completed late 2025, exhibited in early 2026 and then finalised.

You'll have a further opportunity to comment on these, and we'll keep landowners and key stakeholders informed as the project progresses.

## Have your say

We're inviting feedback between **Tuesday 2 September and Friday 19 September.** To view and download the Aerotropolis Draft Integrated Stormwater Scheme for Duncans Mulgoa, please visit our project website, where you can:

- use our interactive mapping tool to view your property
- see what has changed since the precinct planning phase
- understand what infrastructure is proposed
- provide comments directly onto the map
- make a formal submission
- provide feedback via an online survey

You can also email us a submission or get in touch by phone if you have any questions or need some support with the website.

## Get in touch

We are committed to keeping you informed every step of the way. For more information, visit the project page, scan the QR code below, or email us directly.

**E** **aerostormwater@sydneywater.com.au**

**P** **1800 645 466 (business hours)**

**W** **aerotropolisstormwater.mysocialpinpoint.com.au**

# Glossary

| Term | What it means |
|---|---|
| **Naturalised trunk drainage** | A naturalised stormwater trunk drainage channel is designed to look and function like a natural creek. It's the main drainage system that moves large amounts of stormwater from developed areas to waterways or storage basins. It is typically designed to handle runoff from areas larger than 15 hectares. |
| **Pumping station** | A facility that moves stormwater, water or wastewater from one place to another, usually when gravity alone is not enough to transport it through pipes. |
| **Recycled water** | Water that has been treated so it can be reused for non-drinking purposes in homes and businesses, for industrial and agricultural uses, and for watering public open spaces. |
| **Reservoir** | A large storage facility for water, which can be used to supply drinking water, stormwater storage, or recycled water supply. |

| Term | What it means |
|---|---|
| **Riparian corridor** | The land and vegetation along the edges of creeks and rivers. These areas are important for maintaining water quality, preventing erosion, and providing habitat for wildlife. |
| **Stormwater basin** | A open area for the storage of rainwater runoff. |
| **Stormwater harvesting infrastructure** | Systems that collect runoff that originated from surfaces like roads, roofs, and footpaths. This water is stored and treated so it can be reused in industry, and for things like watering parks and gardens. |
| **Treatment system** | A process or structure that removes pollutants from stormwater to make it cleaner before it is stored, reused or released to the environment. |
| **Waterway** | A river, creek, or stream that carries water through the landscape, often connecting to larger bodies of water like lakes or the ocean. |

# Resources

## Sydney Water resources and policies

**Stormwater Scheme Principles**

https://www.sydneywater.com.au/content/dam/sydneywater/documents/stormwater-scheme-principles.pdf

**Stormwater Scheme Infrastructure Design Guideline**

https://www.sydneywater.com.au/content/dam/sydneywater/documents/stormwater-scheme-guideline-western-sydney.pdf

**Innovative water management for the Aerotropolis Precinct**

https://www.sydneywater.com.au/content/dam/sydneywater/documents/iwcm-summary-report-2022.pdf

**Stormwater Developer Works Policy**

https://www.sydneywater.com.au/content/dam/sydneywater/documents/stormwater-developer-works-funding-policy.pdf

**Stormwater Developer Works Policy – Attachment A**

https://www.sydneywater.com.au/content/dam/sydneywater/documents/stormwater-developer-works-policy-att-a.pdf

## Government published resources and policies

**Stormwater and Water Cycle Study**

https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/L7J+-+Stormwater+and+water+cycle+management+study.pdf

**Riparian Corridors Assessment**

https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/L7E3+-+Riparian+Corridors+Assessment+Dec+2021.pdf

**Western Sydney Aerotropolis Precinct Plan**

https://shared-drupal-s3fs.s3.ap-southeast-2.amazonaws.com/master-test/fapub_pdf/Western+Sydney+Aerotropolis+Precinct+Plan+-+March+2022+-+FINAL_HD+and+accessible.pdf

**Western Sydney Aerotropolis Development Control Plan 2022**

https://www.planningportal.nsw.gov.au/sites/default/files/documents/2024/Aerotropolis%20Phase%202%20DCP_Amendment%201_September%202024.pdf

**Western Parkland City State Environmental Planning Policy 2021 (SEPP)**

https://legislation.nsw.gov.au/view/html/inforce/current/epi-2021-0728

**Land Acquisition (Just Terms Compensation) Act 1991**

https://legislation.nsw.gov.au/view/whole/html/inforce/current/act-1991-022

# Want to know more?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# Interpreter service

131 450

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如果您需要口譯員，請撥打上面列出的電話號碼

如果您需要口译员，请拨打上面列出的电话号码

Εάν χρειάζεστε διερμηνέα, καλέστε τον αριθμό που αναφέρεται παραπάνω

통역이 필요한 경우 위에 나열된 번호로 전화하십시오.

Nếu bạn cần thông dịch viên, hãy gọi số điện thoại được liệt kê ở trên

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