



Sydney
WATER

Innovative water management for the Aerotropolis



Phill Birtles

Integrated Water Cycle Manager
Western Sydney Development
21 June 2022

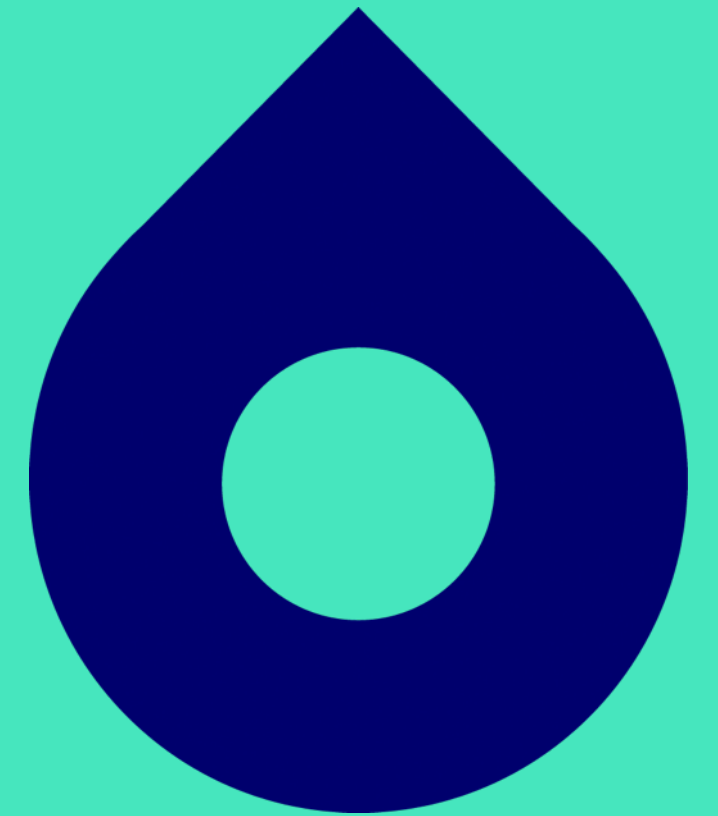


Acknowledgement of country

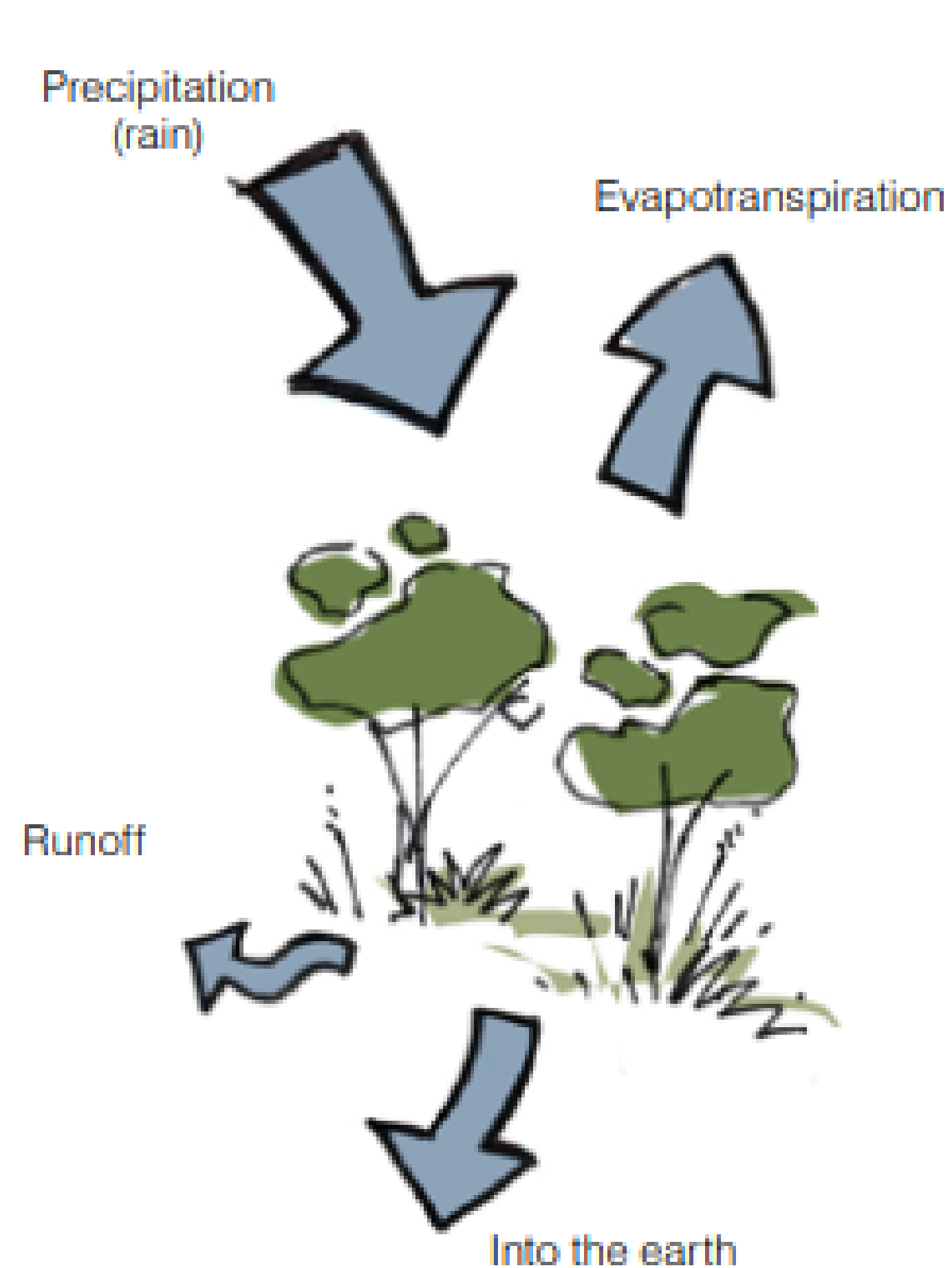


Sydney Water respectfully acknowledges the traditional custodians of the land and waters on which we work, live and learn. We pay respect to Elders past and present.

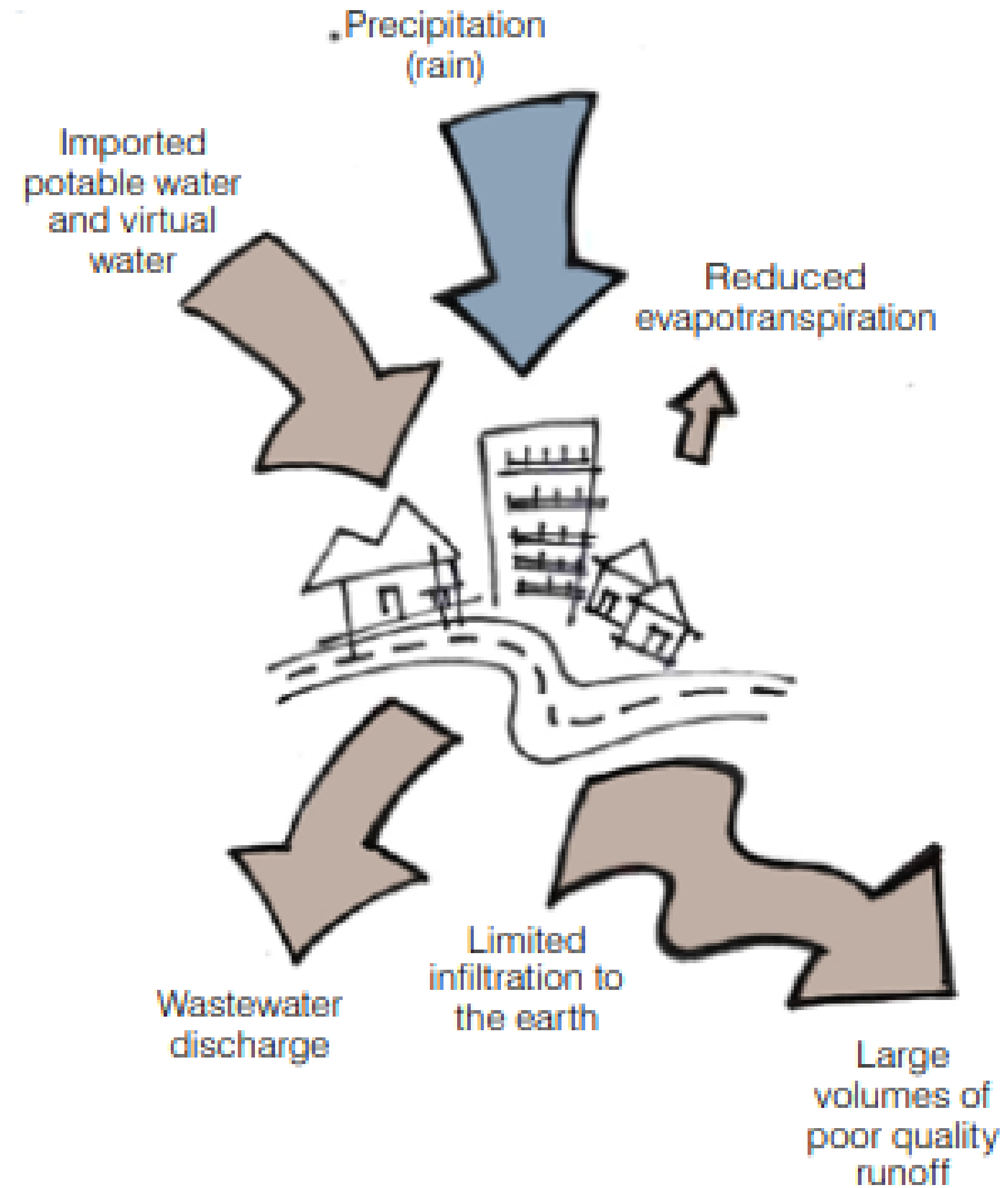
Welcome and introduction



Urban water cycle



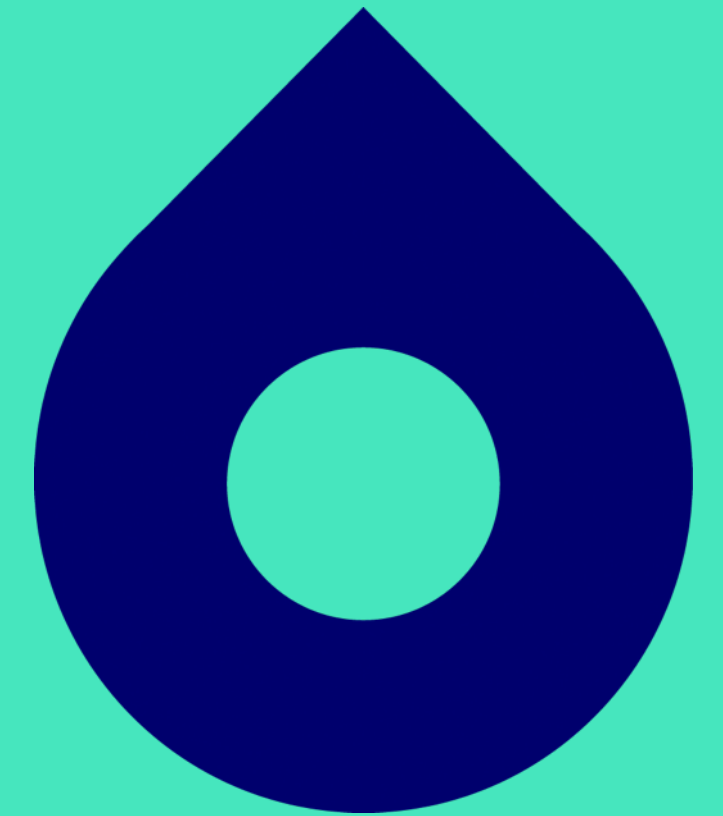
Natural water balance



Urban water balance

Servicing infrastructure

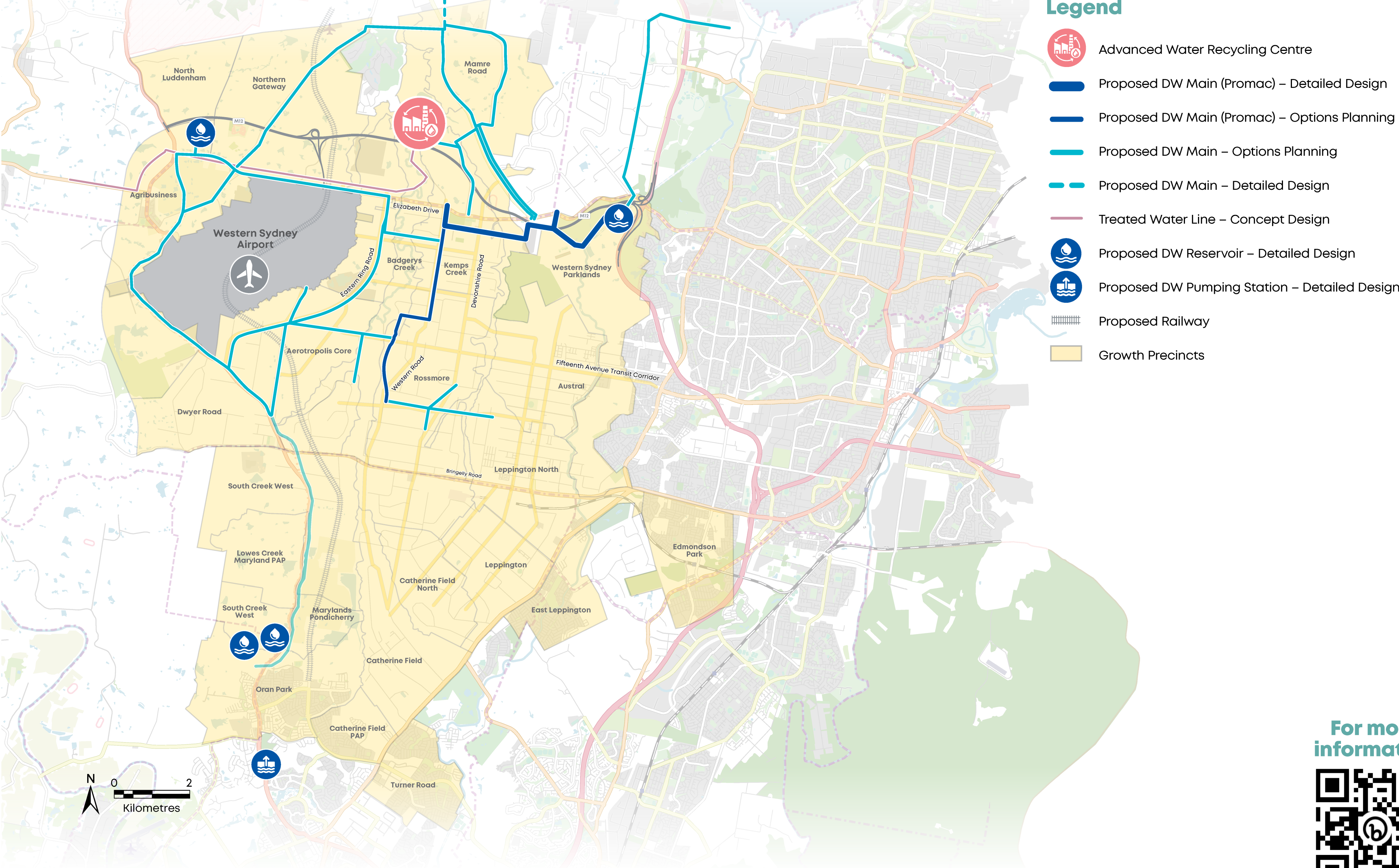
Aerotropolis precincts



Western Sydney Aerotropolis



Indicative Drinking Water Servicing Infrastructure



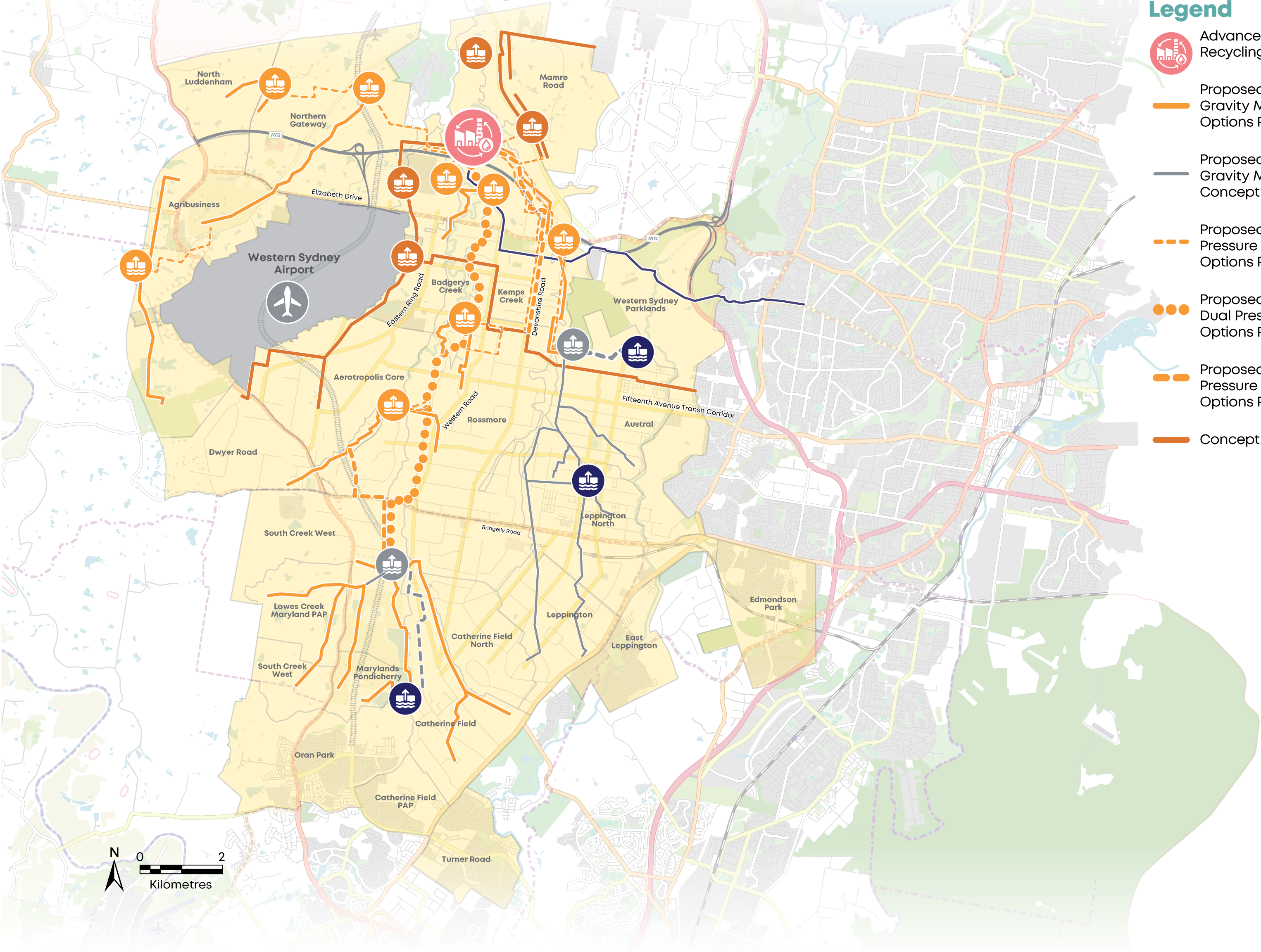
For more
information



Western Sydney Aerotropolis



Indicative Wastewater Servicing Infrastructure



Legend

- Advanced Water Recycling Centre
- Proposed WW Gravity Main – Options Planning
- Proposed WW Gravity Main – Concept Design
- Proposed WW Pressure Main – Options Planning
- Proposed WW Dual Pressure Main – Options Planning
- Proposed WW Pressure Main (Interim) – Options Planning
- Concept design
- Proposed WW Pressure Main (Interim) – Concept Design
- Proposed Brine Line – Concept Design
- Existing WW Pumping Station
- Proposed WW Pumping Station – Options Planning
- Proposed WW Pumping Station – Concept Design
- Proposed Railway
- Growth Precincts



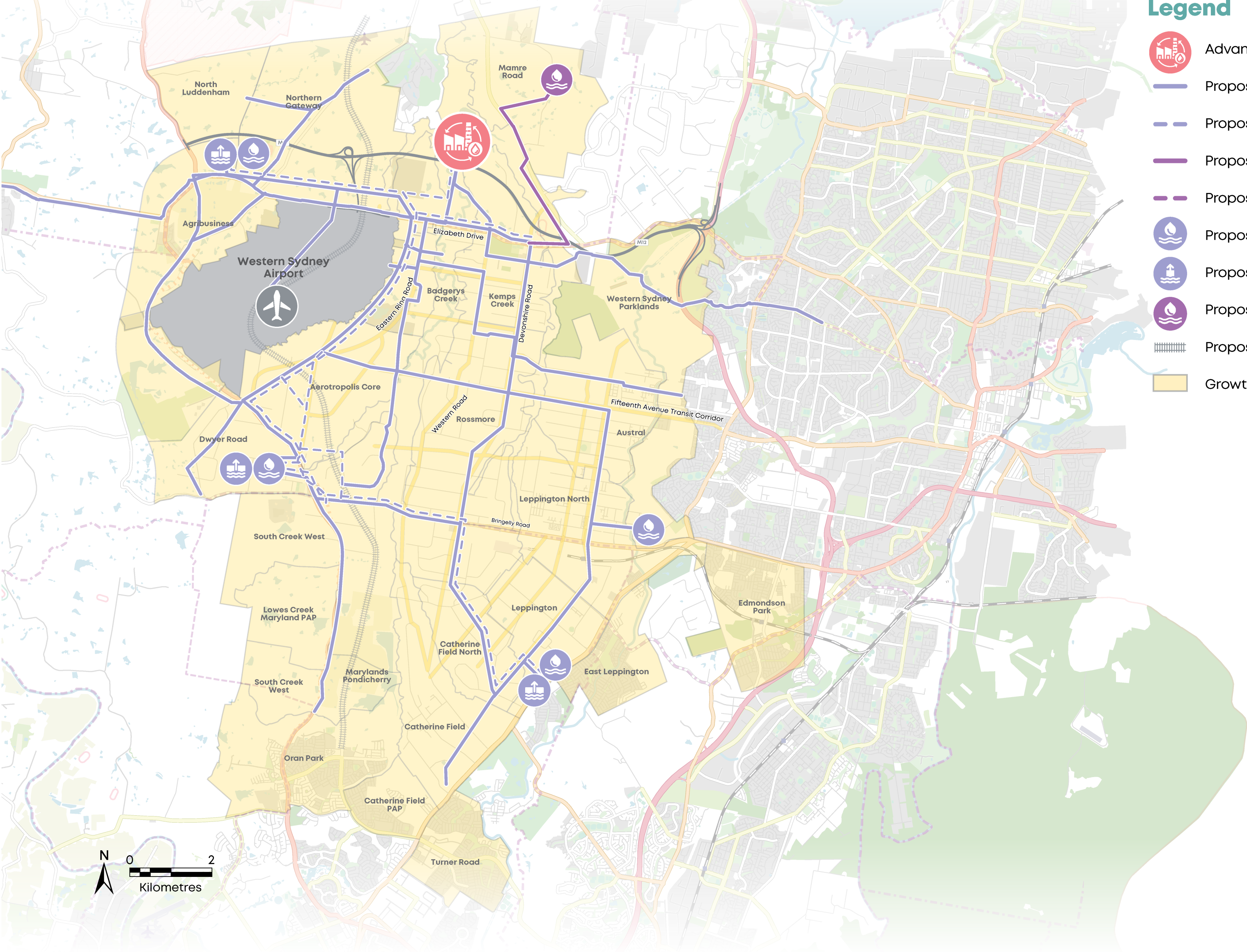
For more information



Western Sydney Aerotropolis



Indicative Recycled Water Servicing Infrastructure



Legend

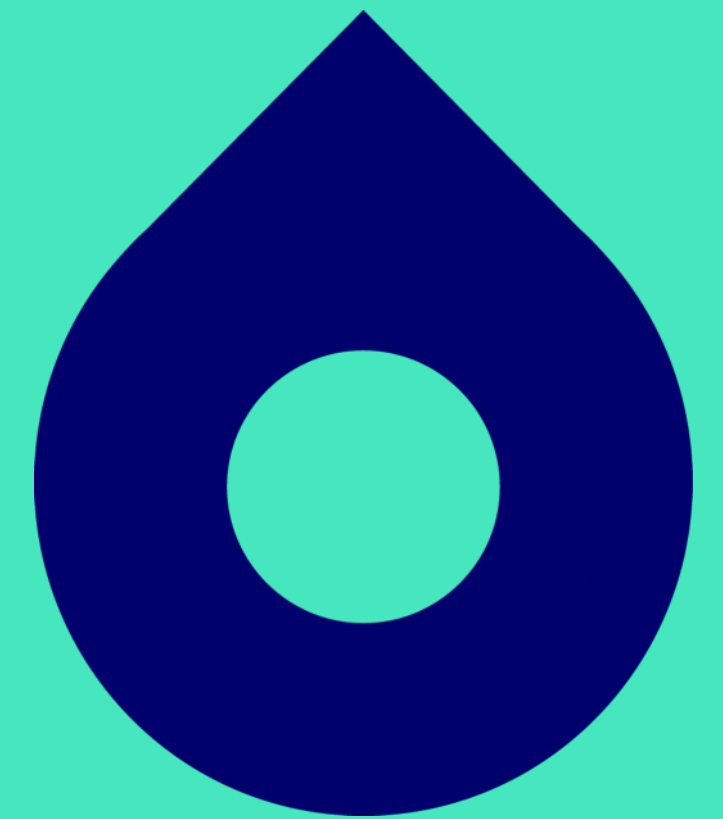
- Advanced Water Recycling Centre
- Proposed RW Main – Strategic Planning
- Proposed RW Main – Strategic Planning
- Proposed RW Main – Options Planning
- Proposed RW Main – Options Planning
- Proposed RW Reservoir – Strategic Planning
- Proposed RW Pumping Station – Strategic Planning
- Proposed RW Reservoir – Options Planning
- Proposed Railway
- Growth Precincts

For more
information



Stormwater management

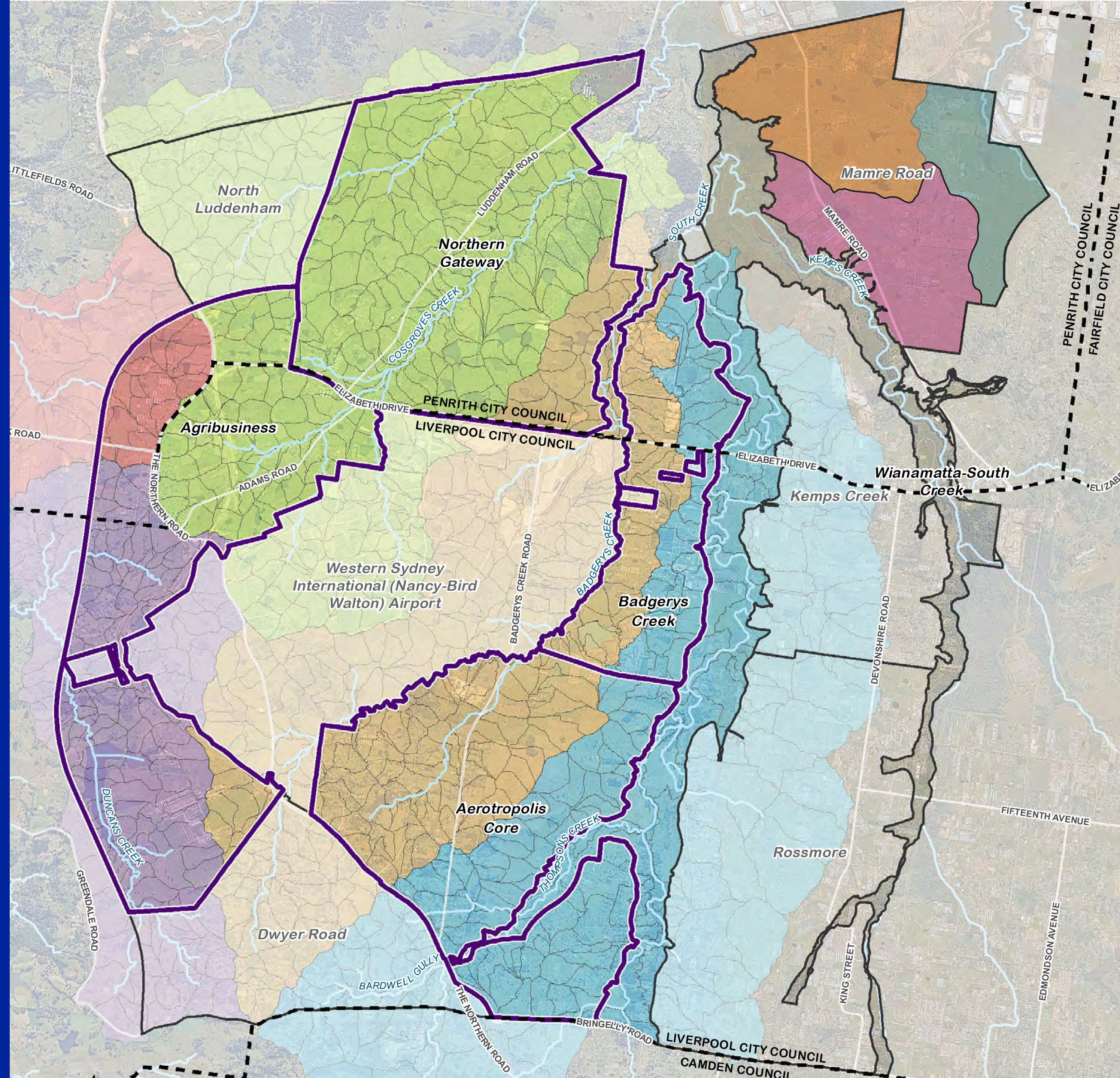
Aerotropolis and Mamre Road precincts



Delivering regional stormwater as the Trunk Drainage Authority

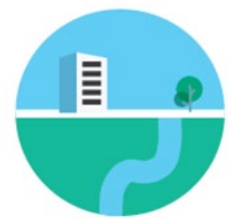
Drainage Management for Aerotropolis and Mamre Road Precincts

Draft 7 June 2022



World-leading development through integrated water management

The Strategy will deliver:



Naturalised blue-green grid.



Double the number of days with no thermal heat stress.



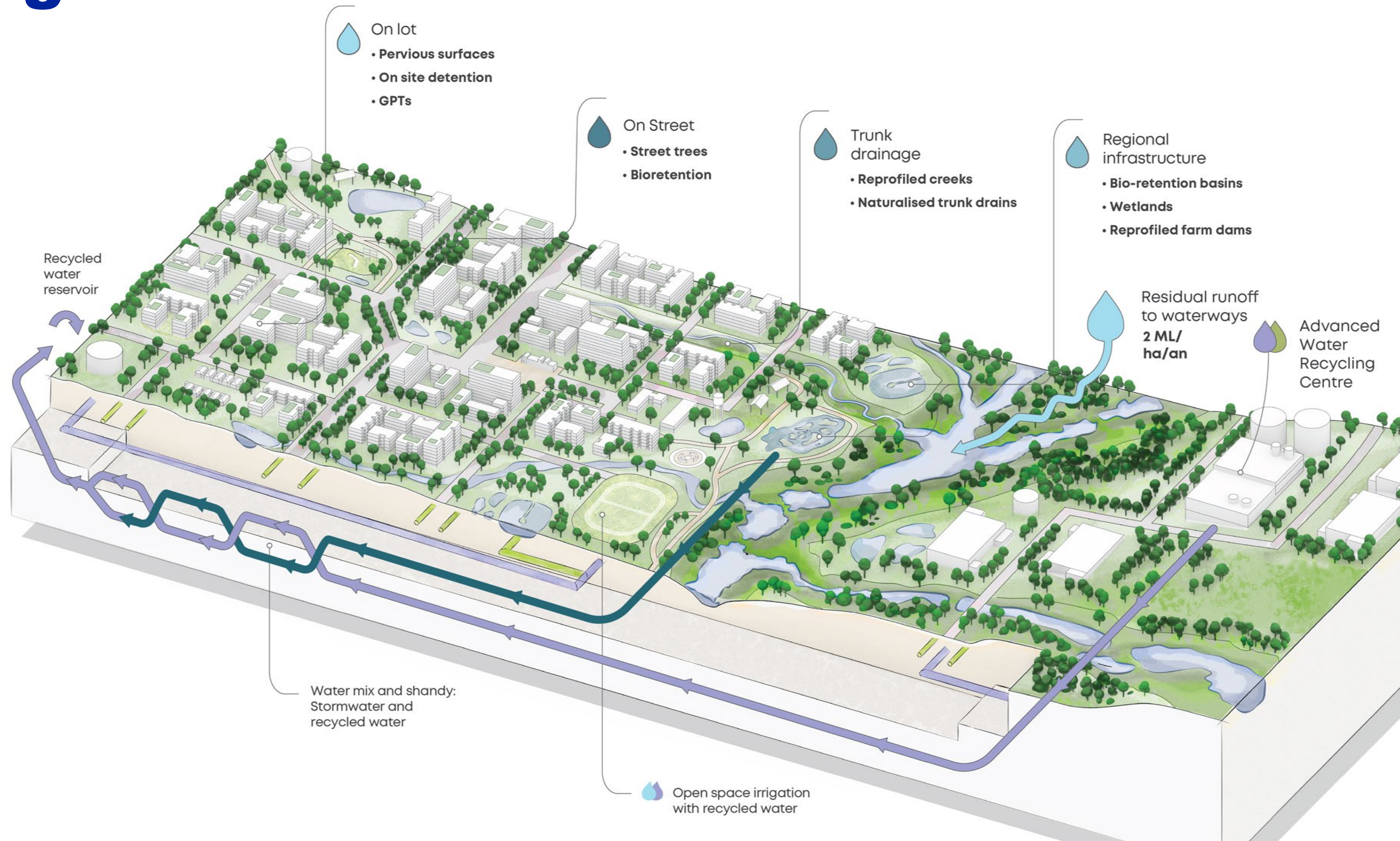
Year round, greener open space.



3x more canopy cover.



Reduction in max daily temp of up to 5 degrees at 2055.



A simpler solution for managing stormwater

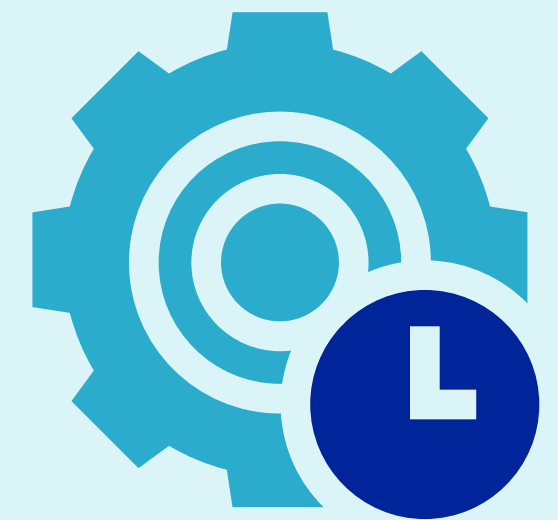
Centralised infrastructure off-lot



Simpler on-lot stormwater design and modelling



More efficient and productive developments



Resilient parklands which contribute to value



Centralised stormwater infrastructure



What we've heard

How we're responding

What will Sydney Water manage and what will council manage?

Can we change the location of proposed infrastructure on our land?

How do we find out when activities will be occurring?

When will land be acquired?

How much will this cost me?

Transparent decision making through our Framework



Working to explain locations of basins and assets

Clear timeline of planning process until end 2023



Proposed a stormwater management structure and approvals pathway

Created a single source of online information
- Sydney Water Talk page -

Started an engagement process with developers and landowners

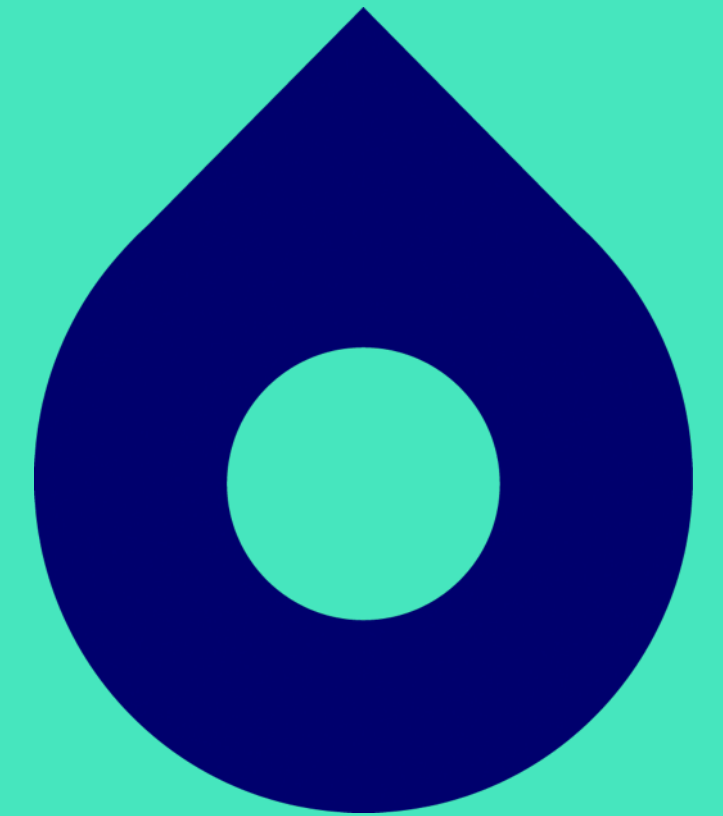


Developed commercial models and a strategic business case

Proposed timeline for Aerotropolis Trunk Drainage



Have your say on our planning documents



Open to feedback until Sunday 24 July 2022 through
sydneywatertalk.com.au/aerostormwater



What are we consulting on?

Proposed Aerotropolis Stormwater Management Framework

- Interim principles to guide development decisions and stormwater planning
- Outlines which parties will deliver and manage stormwater assets
- Explains the stormwater planning approval pathway

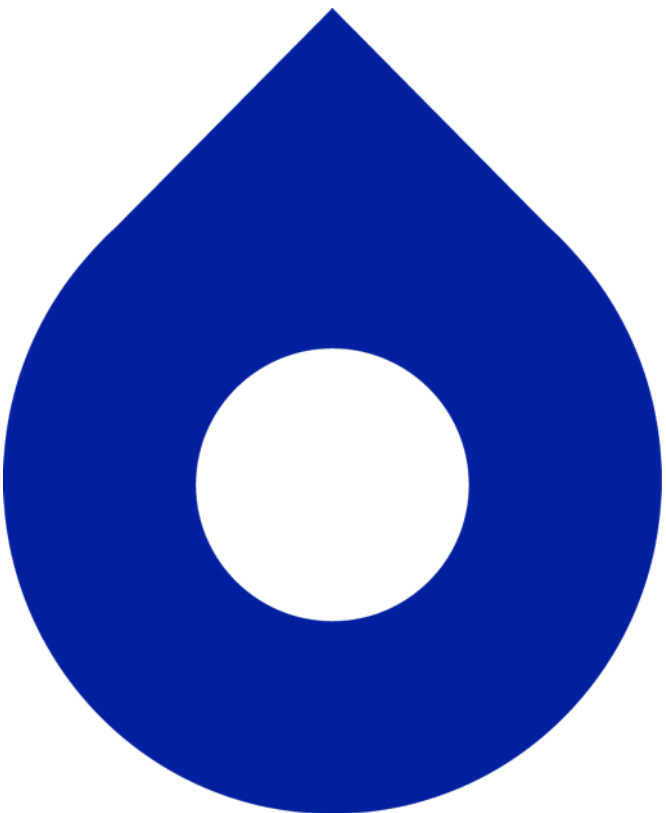
Draft Scheme Plan for Mamre Road

- Shows the location of infrastructure within a precinct/stormwater catchment
- Developed in line with the planning principles

Proposed Principles

Examples of Proposed Principles

- | | |
|-----|---|
| 2. | Stormwater catchment drainage schemes will be planned to service all land within the declared catchment and provide trunk drainage to service catchments greater than 15ha. |
| 4. | Stormwater catchment drainage schemes will be planned to consider, respect, and protect cultural values, along trunk drainage and within waterways. |
| 5. | Stormwater catchment drainage schemes should propose infrastructure to service development that is efficient in terms of cost and performance. |
| 13. | Development Servicing Plans and associated Stormwater Catchment Drainage Schemes will be reviewed at least once every five years. |
| 14. | A robust consultation process will govern the creation of Stormwater Catchment Drainage Schemes. |
| 15. | Stormwater Catchment Drainage Schemes will be adjusted for innovative works that benefit the scheme. |
| 16. | Stormwater Catchment Drainage Schemes will include property acquisition costs consistent with NSW Government standards and practices. |



Proposed Management Structure

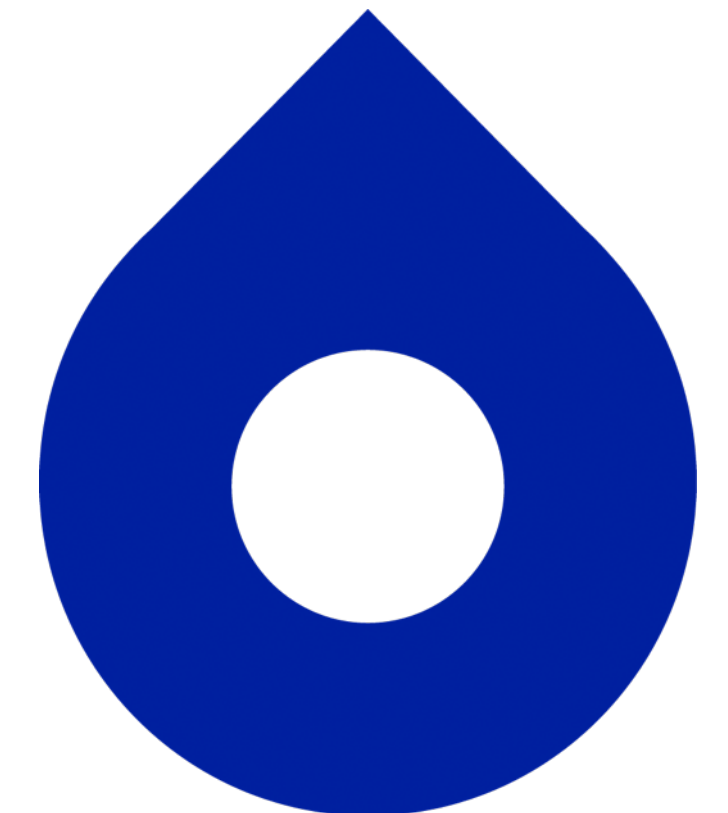
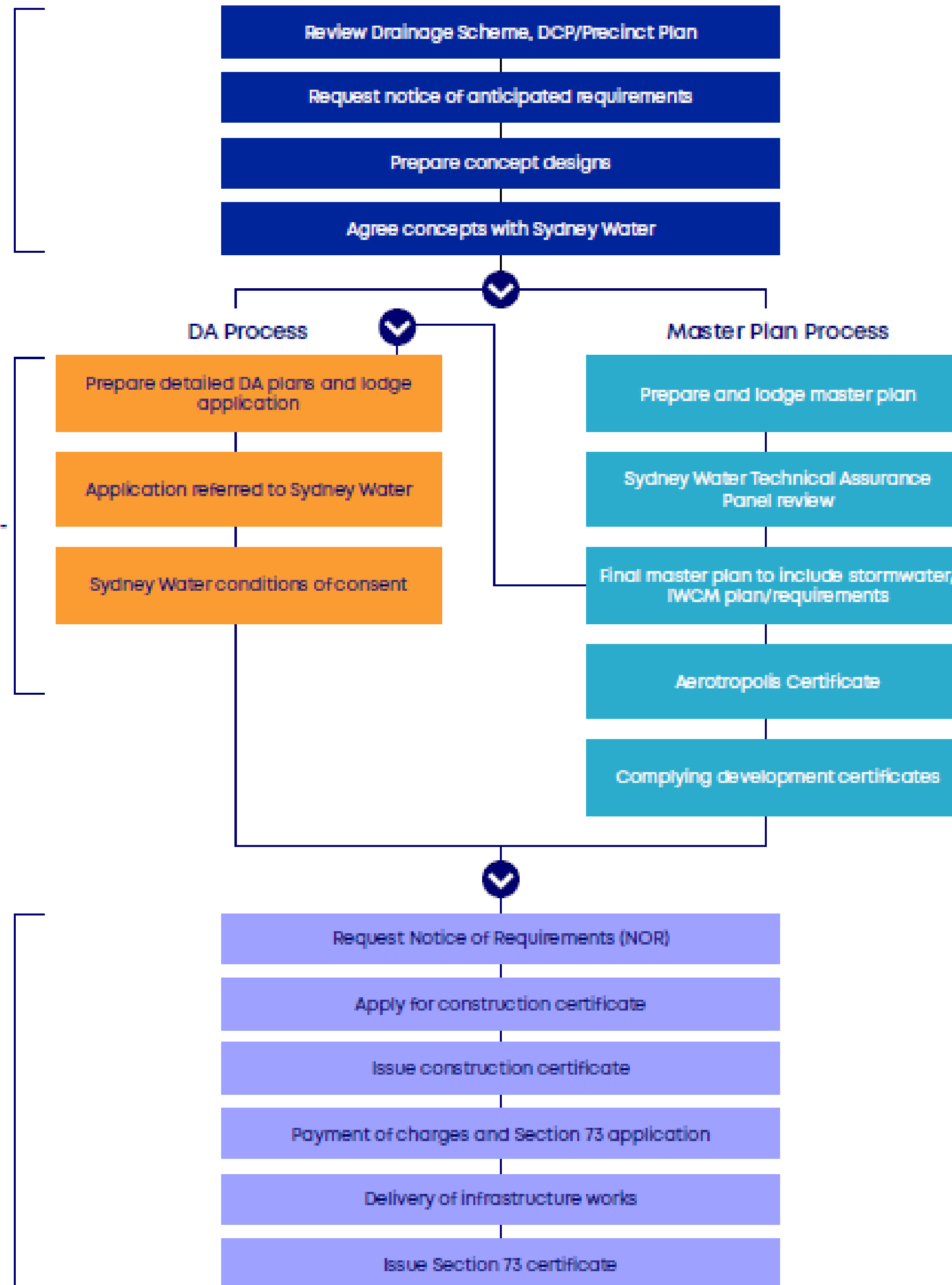
Assets	Planning and requirements	Approval	Ownership	Funding source	Delivery	Ongoing management
GPTs for greater than 15Ha GPTs can be required at the point the pipe system delivers to open drainage.	IWCM studies assumes GPTs before each wetland. Sydney Water's Stormwater Catchment Drainage Schemes will specify where this is needed.	Agreement with Council and Sydney Water	Sydney Water	Sydney Water DSP NOR Agreement (developer DSP offset)	Developer / Sydney Water In accordance with Sydney Water Engineering Specifications	Sydney Water
Detention basins in precinct For mitigating the increased flow effects due to development of region (in conjunction with the OSD)	Planned by Sydney Water to Council's specified approach (no regional detention basins proposed in Mamre Road) Drainage Scheme to detail drainage requirements as per DCP Development to be approved by DPE / Council	Council, DPE and Sydney Water to agreed Drainage Scheme	Sydney Water	Sydney Water DSP NOR Agreement (developer DSP offset)	Developer / Sydney Water In accordance with Sydney Water Engineering Specifications	Sydney Water
Waterway Health/ harvesting wetlands To meet the waterway health targets, stormwater is treated and stored in wetlands identified across the precincts.	Sydney Water has identified and planned wetlands as well as the land for acquisition including space for batters and maintenance access. Final system design is finalised in the Drainage Scheme. Mamre Road – identified in final Riparian, Flood and IWCM Plan. Aerotropolis Precincts – identified in Precinct Plans and SEPP.	Locations identified with DPE in Precinct Planning.	Sydney Water (see infrastructure layer in SEPP)	Sydney Water DSP NOR Agreement (developer DSP offset)	Developer / Sydney Water In accordance with Sydney Water Engineering Specifications	Sydney Water
Stormwater extraction system and treatment Stormwater harvesting system	Sydney Water will design a stormwater extraction system to harvest stormwater from the wetlands and deliver to the development via the recycled water reticulation systems. Sydney Water will operate pump / pipe systems and manage storage levels.	NSW Health regarding treatment. DPE Water regarding extraction.	Sydney Water	Sydney Water DSP	Sydney Water WSAA standards	Sydney Water

Proposed Stormwater Approval Pathway

Pre-lodgement -
Strategic Design

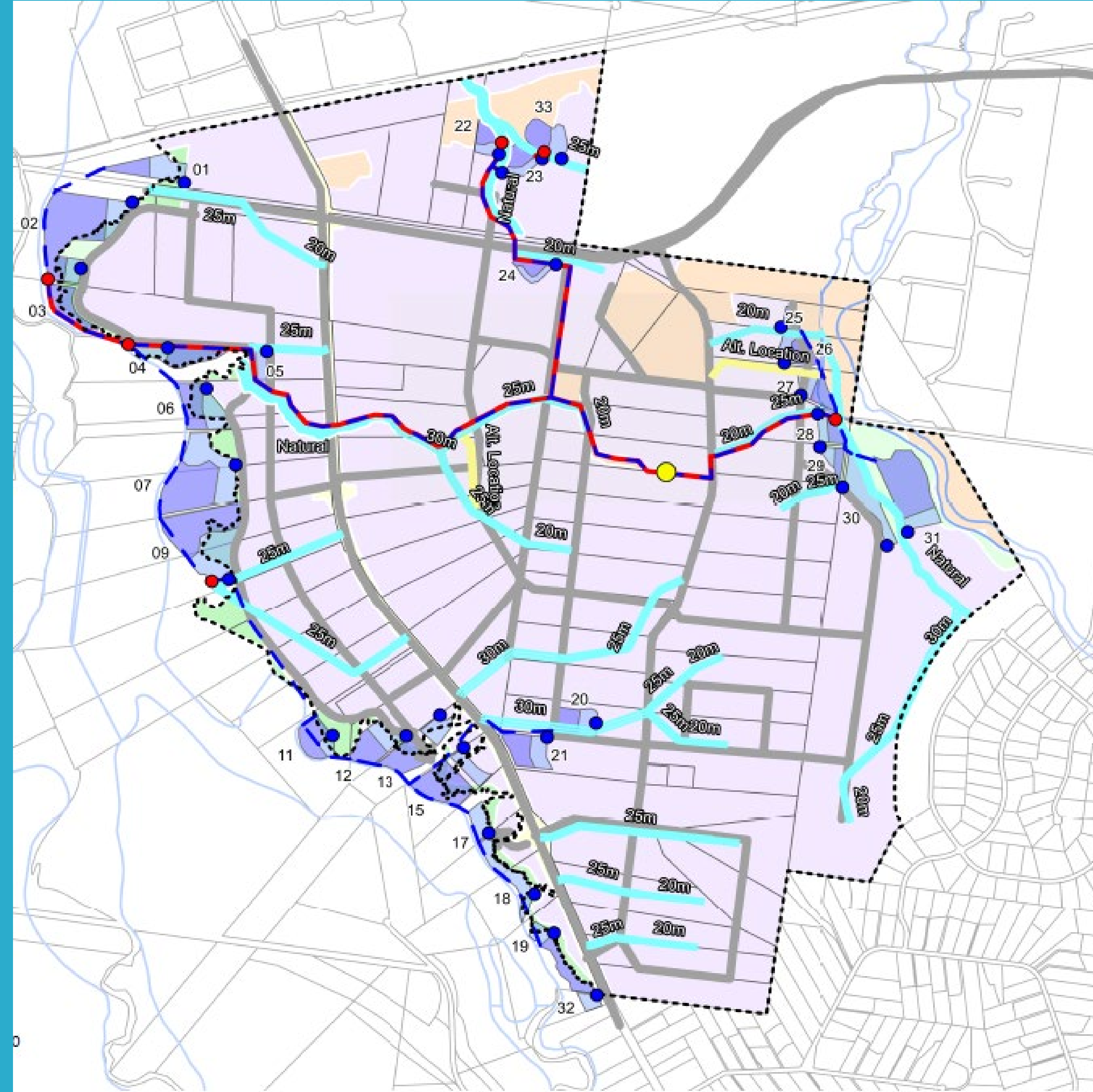
Assessment and
Approval Process -
Detailed Design

Post Approval -
Engineering
Design/Delivery



Draft Stormwater Drainage Scheme Plan

Mamre Road Precinct

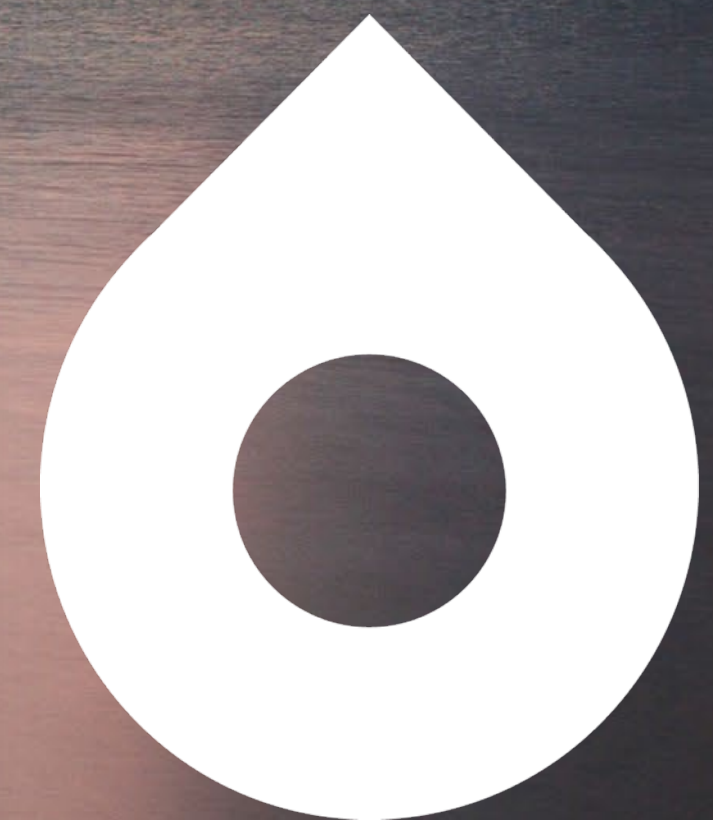




Next steps

Engagement

- Survey open for feedback at sydneywatertalk.com.au
- Consultation closes on 24 July 2022





Questions