[redacted]

RE: COST OF STORMWAER DRAINAGE IN THE MAMRE ROAD PRECINCT
SUBMISSION TO IPART

1. Introduction

This letter has been prepared by [redacted], and outlines a response to the Issues Paper released by the Independent Pricing and Regulatory Tribunal (IPART) titled '*Cost of stormwater drainage in the Mamre Road Precinct*' (23 April 2024). The objective of this submission is to outline general key concerns relating to the cost of regional stormwater scheme infrastructure planned by Sydney Water, and to provide advice and recommendations for the consideration of IPART.

2. [redacted]

[redacted] currently has land holdings covering an area of approximately 112 hectares in the Mamre Road Precinct (MRP). SFKC are currently in the process of planning and delivery of serviced industrial land across three separate development estates (refer to **Figure 1**):

- [redacted]), covering around 72 hectares. The subdivision works for this site were approved under SSD-10479 in May 2023. The site is currently under construction, with bulk earthworks well advanced.
- [redacted] covering around 20 hectares. [redacted] are currently awaiting DA approval for this site. Subdivision works are anticipated to commence later in 2024.
- [redacted] covering around 20 hectares. [redacted] submitted DA documentation to Penrith City Council in April 2024. Subdivision works are anticipated to commence in 2025.

[redacted]

Figure 1: Location of [redacted] in the Mamre Road Precinct (aerial imagery from nearmap dated 13 March 2024)

3. Scope of Review

The following data and documentation has been reviewed by [redacted] to inform this submission:

- *Cost of stormwater drainage in the Mamre Road Precinct* (IPART, 23 April 2024).
- *Mamre Road Precinct Stormwater Scheme Plan* (Sydney Water, December 2023), including MUSIC model files and GIS / CAD files that were provided by Sydney Water on https://www.sydneywatertalk.com.au/
- *Mamre Road Precinct – Regional stormwater scheme optimisation summary* (Sydney Water, December 2023).
- *Stormwater Developer Works Policy – Draft* (Sydney Water, November 2023)
- *Draft Aerotropolis Stormwater Management Framework* (Sydney Water, June 2022)
- *Mamre Road Flood, Riparian Corridor and Integrated Water Cycle Management Strategy* (Sydney Water, August 2021)

4. [redacted] experience in the Mamre Road Precinct

Over the past six years, [redacted] has been engaged by landowners within the MRP to deliver a wide range of civil design, engineering and water management services. Our involvement in the planning, design and development of the MRP covers around 480 hectares of IN1 zoned land for at least ten major property developers, including the Stockland Fife Kemps Creek joint venture (SFKC) whose land holdings cover approximately 112 hectares.

In addition to preparation of civil engineering and design documentation, [redacted] work includes liaison with Sydney Water, the NSW Department of Planning, Housing and Infrastructure (DPHI), other consultants and

[redacted]

experts in the field of water management. Additionally, [redacted] has provided various submissions to Sydney Water and DPHI in relation to the waterway health objectives for the Wianamatta-South Creek catchment and the Mamre Road Precinct Stormwater Scheme Plan (MRP SSP).

[redacted] has prepared several Water Management Strategies for landowners in the MRP, which have accompanied or will accompany DAs and SSDAs that cover around 50% of the total area of the MRP. At least ten engineers, designers and project managers within the [redacted] team are currently working on civil infrastructure design and development of water management strategies for several sites in the MRP. We therefore have a thorough understanding of the challenges and opportunities posed by the waterway health and stormwater management targets that have been adopted in the MRP DCP.

5. Key concerns relating to the cost of stormwater drainage in the Precinct

Outlined below is a summary of the main items of concern relating to the cost and allocation of costs of the proposed Sydney Water stormwater drainage scheme in the MRP.

Naturalised trunk drainage

Based on the *Stormwater Developer Works Policy – Draft* released by Sydney Water in November 2023, it is understood that the cost of naturalised trunk drainage (as shown in the MRP SSP) would be included in a stormwater developer works reimbursement. By extension, it is therefore assumed that the DSP charge for stormwater management would include costs associated with the delivery of naturalised trunk drainage assets.

Whilst it is acknowledged that naturalised trunk drainage forms part of the objective of implementing a landscape-led approach to development in the Mamre Road Precinct and broader Western Sydney Aerotropolis (blue-green grid), naturalised trunk drainage does not specifically contribute to the capacity of the SSP to meet the waterway health objectives for the Wianamatta-South Creek catchment. On this basis, it is our opinion that the costs associated with delivery of naturalised trunk drainage should not form part of any DSP charge for stormwater drainage.

However, we acknowledge that the removal of these costs from a DSP has the potential to unfairly burden specific landowners upon whose land naturalised trunk drainage channels are proposed (including the three SFKC sites). Consequently, to fully assess the whole cost of the MRP SSP and to ensure a fair sharing of its cost, it is also our opinion that the costs associated with the delivery of naturalised trunk drainage channels need to be within the DSP charge for stormwater.

Significant additional costs are associated with the naturalised trunk drainage system proposed when compared to 'business as usual' (BAU) stormwater design, being provision of drainage via a 'major / minor' system (piped drainage network for minor flows, generally between the 20% AEP and 5% AEP, and overland flow paths for major flows up to the 1% AEP). The proposed naturalised trunk drainage channels incorporated into the MRP SSP have very specific design criteria specified in guidelines issued by Sydney Water. This includes requirements for maximum longitudinal gradient and allowable bed shear stress, which results in the requirement for drop structures along the channels and additional retaining walls that would not be required if a BAU drainage scheme was provided. These retaining walls are required to achieve the invert levels required by the drainage pipes, and to remove retaining walls and replace with batters would result in a much larger land take.

It has been implied in SWC documentation that the natural trunk drainage channels would reduce flooding. However, a piped drainage network in conjunction with overland flow paths can be provided safety and efficiently at much less cost. This component of the MRP SSP has significant costs that result in no benefit to the developers. An alternative that would result in increased landscape benefits is a piped stormwater network with additional swale areas above, removing the need for extra retaining walls.

[redacted]

[redacted]

Recycled water demand throughout the Precinct

The ability of the MRP SSP to satisfy the waterway health objectives for Wianamatta-South Creek, and more specifically the controls adopted in the Mamre Road Precinct DCP, will be dependent on the volume of drawdown / water usage from the proposed network of storage ponds throughout the MRP.

A discussion of regional water demands, including a breakdown of estimated non-potable internal demand and irrigation demand is outlined in the *Mamre Road Flood, Riparian Corridor and Integrated Water Cycle Management Strategy* (Sydney Water, August 2021). The MUSIC models that have been developed by Sydney Water as the basis for designing the SSP apply a recycled stormwater demand of 3.8 kL per day per hectare of roads and lots within each sub-catchment. The Mamre Road FRCIWCM report also notes '*Due to the number of low water users surveyed, a lower non-potable water demand of 0.3kL/NHa/day was also adopted for sensitivity testing*', however the results of the sensitivity testing were not presented in the report.

Typical large-format industrial warehousing and distribution centres, which will be the predominant type of development within the MRP, have very low water demand (both potable and non-potable). Non-potable water demand will generally be limited to:

- Toilet flushing (typically a fixed daily demand, although demand would be zero for days when the building is not open for business)
- Landscape irrigation (demand would vary depending climate, being higher in summer and lower in winter, and negligible (or zero) during periods of rainfall in the catchment).

Accounting for the seasonal and climatic variability of landscape irrigation demand, it is estimated that a typical large-format industrial warehouse or distribution centre would have a daily non-potable water demand of between 0.55 kL/ha/day and 2.40 kL/ha/day (i.e., between 14% and 63% of the value adopted by Sydney Water as the basis for designing the SSP).

Sydney Water also notes in the Mamre Road FRCIWCM that '*data centres and other high-water users would increase total water demands to 10 kL/NHa/day which is associated with demand for higher quality non-potable water*'. It appears as though the design of the SSP and the adopted non-potable water demand includes a fundamental assumption that such high water users would draw supply from Sydney Water's planned recycled water network, which we do not believe could be assured by Sydney Water or any other authority.

As a result of this low demand, it is likely the 'beneficiaries' of the recycled water are wider than the developers on which these costs are being imposed. It is understood that Sydney Water will use the recycled water from the MRP scheme to 'blend' with recycled wastewater from the Upper South Creek Advanced Recycled Water Centre to make reuse more palatable to consumers. The 'beneficiaries' of the recycled water scheme should therefore be allocated more of the cost of the scheme.

Economic impact of interim solutions

No apparent consideration has been made by Sydney Water for the abortive cost of interim solutions and arrangements that are required to allow development to proceed in a timely manner.

One example of an abortive cost to developers is the need for rainwater tanks to satisfy a DCP control relating to the supply of non-potable water in advance of delivery of the planned recycled water network in the Mamre Road Precinct. Sydney Water has stated their position to several developers in the MRP that rainwater tanks are not supported as a means of non-potable supply. For reference, the following comment was provided in a letter from Sydney Water to Mirvac dated 24 February 2023 regarding the development of Lot/Warehouse 9 in the Aspect Industrial Estate at Mamre Road: '*When the scheme infrastructure is delivered and the development is connected to the regional scheme, interim measures for non-potable re-use including rainwater tanks are to be disconnected, and non-potable water provided by the regional scheme.*' The cost of disconnecting any

[redacted]

[redacted]

rainwater tanks that are required to facilitate timely development would be borne by landowners and developers.

The current situation for landowners and developers in the MRP is that to proceed with development in a manner that demonstrates compliance against the stormwater management controls outlined in the Mamre Road DCP, either:

- A series of on-lot and/or estate-wide interim stormwater management measures need to be implemented (e.g., rainwater tanks or non-potable water supply, bio-retention, proprietary filtration units, evaporation ponds and irrigation systems). These measures would be considered abortive works and would be superseded by the ultimate measures that form the MRP SSP.
- A portion of developable land would need to be set aside (sterilised from development) until the ultimate measures that form the MRP SSP are delivered by Sydney Water (or by others on behalf of Sydney Water).

Both of these scenarios have a negative economic impact on landowners and the industrial sector more broadly. Low vacancy rates for industrial and logistics land in Sydney (around 0.5%) and the limited availability of undeveloped serviced land in Sydney is driving an increase in rents, meaning the demand for serviced land for development is very high. However, the extra costs and uncertainty regarding cost and timing of delivery of stormwater infrastructure (DSP charges in particular) has the potential to reduce demand for serviced land in the MRP and Western Sydney Aerotropolis Precinct.

Merits of on-lot and estate-based solutions

[redacted] prepared a submission on behalf of the Mamre Road Landowners Group (MLOG) in July 2022 in response to the *Draft Aerotropolis Stormwater Management Framework* and Draft SSP released by Sydney Water in June 2022. A copy of that submission is included as **Attachment 1** to this letter.

Our submission to Sydney Water in 2022 highlighted the three main challenges influencing developers in terms of addressing waterway health targets for the MRP:

1) **Cost**, including cost of abortive works and the contributions in the form of a DSP charge
2) **Timing** of the delivery of the MRP SSP relative to the planned completion of developments within the MRP
3) **Approvals** of Development Applications or State Significant Development Applications

Whilst we understand that connection to regional stormwater and recycled water infrastructure will be mandatory, and therefore DSP charges for stormwater and recycled water will be imposed upon all development in the MRP, the three challenges highlighted above have warranted consideration by some landowners of alternative outcomes in the form of on-lot and estate-wide measures. These measures include:

- On-lot and/or estate-wide stormwater quality measures such as gross pollutant traps and bio-retention systems (NB: these measures are considered 'business as usual' for development in Sydney to meet pollutant reduction targets that apply to most LGAs in Sydney).
- On-lot stormwater harvesting and reuse systems (via evaporative roof irrigation). These systems are estimated to reduce the average annual runoff volume by around 1 ML/ha/year, thereby significantly contributing to the capacity required to meet the DCP stormwater flow volume targets.

High level cost estimates undertaken by [redacted] indicate that on-lot and estate-wide stormwater quality and flow management measures are potentially more cost effective than the regional stormwater scheme. Coupled with the ability to be delivered by developers within their land, rather than relying on the acquisition of lands by Sydney Water for the delivery of regional scheme infrastructure, we believe there is merit in further consideration of adopting on-lot and estate-wide stormwater management measures to (at least) partially

[redacted]

[redacted]

contribute to the waterway health objectives for the Wianamatta-South Creek catchment. We acknowledge that this would pose challenges and risks, such as:

- Potentially reducing the demand for recycled water via the planned reticulated water network, which may impact the financial viability of the network.
- Ongoing operation and maintenance issues associated with decentralised stormwater management measures (e.g., access restrictions, system reliability and redundancy).

6. Summary

Outlined in this letter are key considerations that we would request further consideration be given to by IPART as part of the review by the cost of stormwater drainage in the Mamre Road Precinct, in terms of the level of impact to timely and cost-efficient development within the Precinct and how these impacts can be best mitigated. In summary, [redacted] key concerns relating to the cost of stormwater drainage in the Mamre Road Precinct are as follows:

	Relevance to IPART Review
▪ Naturalised trunk drainage	*Appropriate allocation of costs between developers, beneficiaries and others.*
▪ Recycled water demand throughout the MRP	*Targets Sydney Water must meet and the minimum level of stormwater service that would meet these targets (for stormwater quality and flow management, as per the Mamre Road Precinct DCP).* *Developers, landowners, taxpayers and others should pay a fair price for stormwater services they use and the environmental, economic and social benefits they derive from it.*
▪ Economic impact of interim solutions	*Potential environmental, economic and social impacts of providing regional stormwater drainage services in Mamre Road Precinct compared to alternate pathways.*
▪ Merits of on-lot and estate-based solutions	*Alternative stormwater management methods or works that would deliver better outcomes*

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Should you have any questions, please don't hesitate to contact the undersigned.

Yours sincerely,

[redacted]

Attachments:

1 – [redacted] letter to Sydney Water dated 29 July 2022

[redacted]

[redacted]

29 July 2022

Sydney Water
1 Smith Street
Parramatta NSW 2150

Your Ref:

Our Ref: [redacted]
Submission.docx

Attention: Community Engagement Team **Email:** aerostormwater@sydneywater.com.au

Dear Sir or Madam,

RE: WESTERN SYDNEY AEROTROPOLIS STORMWATER

DRAFT AEROTROPOLIS STORMWATER MANAGEMENT FRAMEWORK AND DRAFT SCHEME PLAN FOR MAMRE ROAD PRECINCT

[redacted] SUBMISSION ON BEHALF OF MAMRE ROAD LANDOWNERS GROUP

1. Background

[redacted] has been engaged by several landowners within the Western Sydney Aerotropolis (WSA) and Mamre Road Precinct (MRP) to develop solutions that will address the waterways health objectives of the MRP Development Control Plan (DCP). We have been involved in the area since the release of the draft MRP DCP 2020, which was finalised in 2021.

Our works to date include liaising with Sydney Water, NSW DPE, external consultants and experts in the field of water management. Additionally, [redacted] has provided a comprehensive list of submissions on behalf of the Landowners Group (LOG) in relation to the waterway health objectives for the WSA and MRP. A list of letter and reports with a description of topics is provided below, these include:

- *Mamre Road Precinct Draft DCP Water Management Targets – Development Impact* ([redacted]) – Prepared on behalf of the Mamre Road Landowners Group (LOG) in response to the water management controls documented in the Draft MRP DCP.
- *Mamre Road Precinct Draft DCP Water Management – MUSIC Modelling Summary* (March 2021) – outlining measures to satisfy the draft MRP DCP (2020) stormwater flow target for an 'Estate Outcome' (without regional measures in place) and a 'Precinct Outcome' (with regional measures in place).
- *Mamre Road Precinct Final DCP Presentation Review* (August 2021) – Prepared in response to a presentation by NSW DPE (formerly DPIE) outlining updates to the Draft MRP DCP (2020) prior to finalisation. This letter addressed:
  - Measures required to meet the mean annual runoff volume (MARV) stormwater flow target of 2.0ML/ha/year (adopted in the Final MRP DCP (2021)).
  - Catchment (precinct-wide) modelling which demonstrated that, with business-as-usual water sensitive urban design measures (i.e., stormwater quality and quantity management measures required to satisfy Penrith DCP targets), the MARV from the MRP would not be exceeded until around 5-6 years post-delivery of the first stages of infrastructure and development within the precinct.

[redacted]

- Constraints associated with the proposed trunk drainage channels across the MRP, such as vehicular and roadway crossings and longitudinal gradients of certain channels in the upper catchment.

- *Mamre Road Precinct – MARV Summary* (February 2022), outlining a summary of initiatives that could be implemented to meet the stormwater flow targets and indicative costs of these initiatives.
- A letter on behalf of landowners within the Badgerys Creek Precinct of the Aerotropolis in response to the *Western Sydney Aerotropolis Phase 2 DCP*, which includes stormwater management targets generally consistent with those adopted in the final Mamre Road DCP.

[redacted] has prepared several Water Management Strategies for landowners in the MRP, which have accompanied or will accompany DAs and SSDAs that cover no less than 380 hectares of the Precinct (approximately 45% of the total land area of the Precinct). At least 12 people within the [redacted] team, including Designers, Engineers and Project Managers, are currently working on civil infrastructure design and development of water management strategies for several sites in the WSA and MRP. We therefore have a thorough understanding of the challenges and opportunities posed by the waterway health and stormwater management targets that have been adopted in the MRP DCP, and that are likely to be adopted in the final Aerotropolis DCP.

2. Waterway health targets

We acknowledge the value of Wianamatta-South Creek and support the objective to improve the health of waterways in the Wianamatta South Creek catchment. We understand the three broad metrics identified in the *Draft Mamre Road Flood, Riparian Corridor and Integrated Water Cycle Management Report* (FRCIWCM) (Sydney Water, 2020), being **flow volume** (MARV), **seasonal pulses** (demonstrated by flow duration curves) and **water quality** (as indicated by pollutant reduction or allowable loads), are the basis for the stormwater quality, quantity and flow targets adopted in the Final MRP DCP.

3. Strategies to meet waterway health targets

As outlined in our report dated March 2021, various initiatives could be implemented to satisfy the stormwater flow reduction target required by the DCP controls. The initiatives that would provide the greatest reduction to MARV across the precinct would be:

- Evaporation ponds (either estate-based or regional assets) – nominal reduction of 1.6 ML/ha/year
- Evaporative roof irrigation (misting, drip or thin film) – nominal reduction of 1.0 ML/ha/year
- Rainwater reuse for non-potable demands within the precinct (primarily toilet flushing and landscape irrigation) – nominal reduction of 0.3-0.6 ML/ha/year (subject to the type of facility, staffing requirements, wash down facilities etc)

Other measures such as street tree pits and permeable pavers have been found to provide little benefit in terms of stormwater flow volume management but could be implemented to meet other DCP objectives and controls (e.g., permeability, canopy cover).

As provided in our formal response letters to Sydney Water and NSW DPE, there are several challenges and uncertainties influencing developers and their decision-making in terms of addressing the waterway health targets. The three main challenges relate to cost, timing and approval and are discussed further in the table below.:

Cost	Uncertainty regarding cost of servicing land to meet waterway health objectives and controls, including:

[redacted]

[redacted]

	▪ Capital cost of stormwater management and recycled water infrastructure borne by developers.
	▪ Capital cost of potentially abortive work (i.e., interim measures that may be required in advance of delivery of the proposed regional scheme by Sydney Water).
	▪ Contributions in the form of Development Servicing Plan (DSP) charges for stormwater management and recycled water.
	▪ What will and will not be funded by a DSP charge, such as:
	  ▸ Runoff from non-developable land.
	  ▸ 'Existing urban land' within the scheme.
	  ▸ 'Existing and future development external to the stormwater catchment drainage scheme'.
	  ▸ Environmental works downstream of schemes.
	▪ Ongoing operation and maintenance costs borne by landowners or tenants for estate-wide and on-lot measures.
	▪ Ongoing charges such as recycled water charges to landowners and tenants.

Timing	▪ Timing of the Scheme Plans finalisation and delivery of regional infrastructure.
	VS
	▪ Timing of current and planned development in the MRP – noting that:
	  ▸ The Yards (657-769 Mamre Road, a 92-ha site), is currently under construction.
	  ▸ Development consent for the Aspect Industrial Estate (788-882 Mamre Road, a 56-ha site) was grated in May 2022.
	  ▸ Development of a further 220 hectares of the MRP is currently at the Response to Submission (RtS) phase of the SSDA process.

Approvals	▪ SSDAs for several major estates have been approved or are currently being assessed by NSW DPE. ▪ Of particular concern is a comment raised by Sydney Water in their landowner briefing on Friday 10 June 2022 that Sydney Water does not yet have a concurrent referral role in the assessment of SSDAs within the Precinct. ▪ While Sydney Water has been appointed as the Trunk Drainage Authority for stormwater in the WSA, development applications are required to meet the stormwater flow targets outlined in the MRP DCP. Based on delivery timeframes of estates, developers will be required to deliver infrastructure prior to the Regional Outcome as shown within the Sydney Water Scheme Plan, which compromises the intent for the Regional Solution and will be inefficient in terms of cost.

Essentially, the uncertainties (and therefore risks to development) are driving decision-making in the Precinct and are, in our opinion, likely to influence the evolution of the proposed regional scheme and cost.

[redacted] has been working with the Mamre Road LOG, Sydney Water and others to develop strategies to meet the waterway health targets that have ultimately been adopted in the MRP DCP. A summary of the three strategies is provided below:

[redacted]

i) **Estate Outcome** – Measures to satisfy the stormwater quality, quantity and flow targets estate-wide and/or on individual allotments.

ii) **Hybrid Outcome** – Measures to partially satisfy stormwater quality, quantity and flow targets estate-wide and/or on individual allotments, with any shortfall in capacity to reach the targets being satisfied at a regional scale.

iii) **Precinct Outcome** – Measures to satisfy the stormwater quantity targets either estate-wide or on individual allotments and stormwater quality and flow targets at a regional scale.

Due to our historical involvement in the area, it is evident that connection to and reliance on the proposed regional stormwater management scheme in the MRP is not the preferred outcome for some landowners in the precinct based on many factors.

For instance,

- Landowners that are well advanced in their master planning, design and approvals that do not have direct connection to the proposed regional measures are pursuing strategies consistent with the 'Estate Outcome'.
- Landowners with land parcels that have direct connection to the proposed regional measures have less barriers to pursuing a 'Precinct Outcome' in conjunction with Sydney Water.

Based on our understanding of the current status of masterplanning and approvals of several proposed development estates in the MRP, we envisage the following outcomes being realised within the MRP:

- **Approximately 20% of development in the MRP is likely to adopt an 'Estate Outcome'** and should therefore not be subject to a DSP charge for regional stormwater management measures.

- **Approximately 35% of development in the MRP is likely to adopt a 'Hybrid Outcome'** and should therefore be subject to a proportion of the DSP charge for regional stormwater management measures.

- **Approximately 45% of development in the MRP is likely to adopt a 'Precinct Outcome'** and would therefore be subject to the full DSP charge for regional stormwater management measures.

It is important to emphasise that, based on the envisaged outcome described above, the cost, scale and extent of the measures required to meet the waterway health objectives for the MRP would be significantly reduced from those presented in the Draft Mamre Road Scheme Plan.

4. Recycled water – Interim vs Ultimate Arrangement

As an interim measure (prior to delivery of the regional scheme and reticulated recycled water network), development in the MRP can satisfy the non-potable reuse targets outlined in the DCP by connecting to irrigation tank that would harvest roof runoff from warehouses for reticulation to toilets and landscape irrigation systems. In addition, this tank would be sized to capture runoff for evaporative roof irrigation (misting, drip or thin-film irrigation), such that part of the MARV reduction required in the DCP could be achieved.

Once the regional stormwater management scheme and reticulated recycled water network is delivered, developments that rely on rainwater tanks for non-potable reuse would be switched to the recycled water network. The on-lot tanks would be retained for the purpose of roof water capture for evaporative irrigation, which would continue to contribute to the stormwater flow targets in the MRP.

This approach is consistent with Sydney Water's intent to deliver an integrated stormwater and recycled wastewater system.

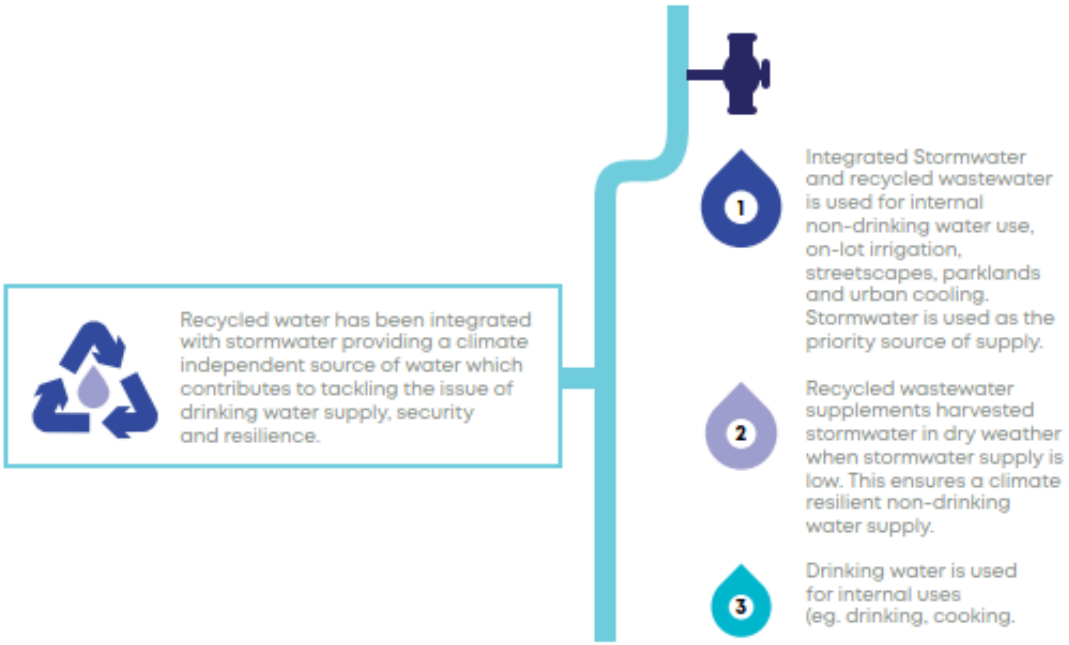

Figure 1: Extract from Innovative water management for the Aerotropolis Precinct (Sydney Water, May 2022)

5. Collaboration with Sydney Water

Throughout the process of developing the Draft Scheme Plan for the MRP and during the exhibition period, Sydney Water has reiterated on several occasions the preliminary nature of the MRP Scheme Plan in its current form. [redacted] applauds the open and consultative approach that Sydney Water has taken with members of the Mamre Road LOG, and in general towards the evolution of the MRP Scheme Plan. [redacted] appreciated the opportunity to discuss our ongoing work within the MRP on Monday 4th July with Sydney Water, and we look forward to more opportunities to collaborate with Sydney Water in the design development of the MRP Scheme Plan.

In developing strategies for various estates within the MRP, [redacted] has gained an intimate knowledge of the challenges posed by the objectives and controls adopted in the MRP DCP 2021. Based on our review of the Draft Scheme Plan, the draft framework and numerous background studies and documents, there are many questions that remain unanswered. These questions will need to be resolved as soon as possible to facilitate timely and efficient development within the precinct. Some of these questions are:

Cost	▪ Can Sydney Water provide an indicative DSP charge (or at least a range) in advance of the final DSPs being released? The uncertainty regarding this DSP charge and the likely quantum of the charge as a proportion of the total cost of delivering serviced large-format industrial land is a major challenge to development of the MRP. ▪ Why would landowners pay for recycled water infrastructure and ongoing service charges if they have an internal (albeit climate dependent) source of non-potable water? The DCP is written in a manner which requires developers to satisfy the stormwater flow targets at the outlet of the site to attain development approval. This would result in developments being largely self-

	sufficient through the majority of non-potable water demand being met onsite (minimum 80% as required by the MRP DCP).
Basis of the Draft Scheme Plan	▪ What assumptions have been adopted in the regional modelling of the MRP undertaken by Sydney Water, especially regarding water reuse from harvesting ponds? ▪ Does the Draft Scheme Plan satisfy the Mamre Road DCP Controls for stormwater quality and flow targets (assuming developers would still be required to satisfy stormwater quantity controls on-lot or estate-wide)? ▪ What proportion of reticulated recycled water throughout the precinct would be from the Upper South Creek AWRC? ▪ How have wetlands and harvesting ponds been sized by Sydney Water (i.e., based on what assumptions)? Is there a risk that the dimensions and number of wetlands and harvesting ponds will change as the Regional Outcome is progressed? ▪ Until the Framework and Scheme Plans are finalised, how does Sydney Water, developers within the MRP and their consultant teams get from where we are now (Draft Scheme Plan) to delivery and operation of regional assets, navigating: ▸ Planning and Approvals (including concept design of stormwater management measures) ▸ Detailed Design of stormwater management measures ▸ Tendering and Contractor engagement ▸ Construction ▸ Handover to Sydney Water for ownership and operation
Technical Issues	▪ If developers decide to proceed without the regional scheme (the Estate Outcome), how will this impact Sydney Water's proposed scheme (e.g., the quantum of discharge to regional stormwater management measures)? ▪ If the developer achieves pervious area requirements, OSD and water quality targets on-lot would this exempt the development from achieving flow targets as per example C4-D3 (Table 6, Section 5, Review of water sensitive urban design strategies for Wianamatta South Creek, DPE, 2022) ▪ Can Sydney Water publish the minimum design criteria for wetlands and harvesting ponds proposed within IN1 zoned land (e.g., locations 20 and 24). How will these proposed assets interface with developable land and future infrastructure upgrades (e.g., Southern Link Road)?

6. Way forward

[redacted] advocates a range of solutions to meet the waterway health objectives within the MRP. It is our opinion that the three broad water management strategies described above – the '**Estate Outcome'**, '**Hybrid Outcome'** and '**Precinct Outcome'** – will result in the greatest flexibility for developers and Sydney Water in delivering on the measures needed to satisfy the waterway health objectives for the Wianamatta-South Creek catchment.

The 'Estate Outcome' and 'Hybrid Outcome', whilst not consistent with Sydney Water's current plans for delivery of a regional stormwater management scheme to service all development within the MRP, will allow development to proceed in advance of finalisation of the MRP Scheme Plan and Stormwater Management Framework.

[redacted]

Additional points to emphasise relating to the proposed Framework and Draft Scheme Plan:

- Because of the time it will take for the Precinct Outcome to be put in place, the advanced nature of some DA's (and two approved sites in the MRP) and current requirement for developers to comply with the current MRP DCP stormwater controls, there will be stormwater management infrastructure built on land that cannot be re-purposed when the Precinct Outcome is realised. These developers cannot be burdened with DSP charges when their compliance with the DCP controls is on-lot or estate-based, – i.e., there cannot be a penalty to developers building now to support employment in the short term.
- The MRP DCP and infrastructure contributions in the precinct as a whole have created significant costs for developers, leading to higher rents and an increased gap in affordability between NSW and other competing states. A high DSP charge will further exacerbate this and cause this gap to widen, especially if the range of strategies described above are not taken up by Sydney Water.
- Sydney Water MUST consult with private industry prior to adopting a DSP, the timing of which must be fast tracked to allow certainty for developers and tenants / occupiers alike.

It is important to emphasise that, where the 'Estate Outcome' or 'Hybrid Outcome' is proposed and development consent is granted based on either of these outcomes, that landowners should not be subject to some or all of the DSP charges for regional stormwater management infrastructure.

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The [redacted] engagement across both the Aerotropolis and the Mamre Road Precinct has enabled our company to both appreciate the Waterway Health Strategy and the objective of the MARV and FDC targets. The company has devoted countless hours and resources to work through the MARV and FDC design solutions and we will continue to collaborate with Sydney Water to ensure the most economical fit for purpose solutions are developed and constructed across either estates or as incorporated within the Regional Solution.

[redacted] will continue to engage with Sydney Water where required to provide our insight into the development proposals being prepared and where required, [redacted] could assist in developing the Regional Scheme options to better inform the costs and DSP's.

Should you have any questions, please don't hesitate to contact the undersigned.

Yours sincerely,

[redacted]

[redacted]