

Department of Planning and Environment

# Greater Sydney Water Strategy

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Implementation Plan

2022 – 2025



[www.dpie.nsw.gov.au](http://www.dpie.nsw.gov.au)



**Photography**

Image courtesy of Yvonne Kaiser-Glass, Sydney Water © Sydney Water 2021.  
Aboriginal cultural site, Manly Vale (Gayamaygal Country) NSW.

# About this Implementation Plan

The Greater Sydney Water Strategy charts the long-term vision and direction for delivering sustainable and resilient water services to Greater Sydney, including the Illawarra and the Blue Mountains, for the next 20 years.

This implementation plan outlines how we will deliver the Greater Sydney Water Strategy over the short term—that is, the next 3 financial years from 1 July 2022 to 30 June 2025. This time horizon aligns with the price determination period set by the Independent Pricing and Regulatory Tribunal (IPART) and therefore provides clarity about the forward workplan and funding available to Sydney Water and WaterNSW, and in some cases, the Department of Planning and Environment.

The plan has assigned actions to progress the delivery of all five of the Greater Sydney Water Strategy's priorities. It also outlines the lead agencies and delivery partners that will work collaboratively to deliver actions.

## Timeframes

We will publicly report on progress against actions every 12 months, and update the implementation plan every year to show how we will continue to deliver the strategy in the year ahead.

As the strategy takes an adaptive planning approach, we will continue to monitor for key changes in water demand, environmental trends and customer behaviours to guide future reviews of the strategy, as well as the development of future implementation plans.

Delivery of the full strategy is staged over short, medium and longer-term time horizons, and future actions will be reported in subsequent annual implementation plans as funding is secured and delivery partners identified.

We will formally evaluate, review and update the strategy at least every five years, or in response to changing circumstances.



**Photography**

Image courtesy of Department of Planning and Environment.  
Nepean River, NSW.

## Priority 1. We understand how much water we need and when

| Action                                                                                         | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                                                                                 | Primary responsibility               |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Action 1.1</b><br><b>Change the way we think about future water needs (enduring supply)</b> | a. Continue community consultation on attitudes to water restrictions and establish the minimum daily water demands that customers could accept during long or severe drought—including willingness to pay—to inform decision-making for future water management and supply options <b>by July 2023.</b> | Sydney Water                         |
|                                                                                                | b. Review the approach for defining levels of service for water security informed by customer and community feedback <b>by July 2023.</b>                                                                                                                                                                | DPE—Water and Sydney Water           |
| <b>Action 1.2</b><br><b>Consider future drought and climate risks</b>                          | a. Publish information on the latest climate change modelling and consider how this modelling and data might be used to consider future supply and demand projections and inform future infrastructure planning <b>by July 2023.</b>                                                                     | DPE—Water, Sydney Water and WaterNSW |
|                                                                                                | b. Contribute to the development of the <i>NSW Climate Change Adaptation Strategy</i> (under development) <b>within 3 years.</b>                                                                                                                                                                         | DPE                                  |



### Photography

Image courtesy of Department of Planning and Environment.  
Point Piper, Sydney.

## Priority 2. Our water systems are sustainable for the long term and resilient to extreme events

| Action                                                                                                             | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                                                                                                                                                                                                                                                     | Primary responsibility                                     |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>Action 2.1</b><br><b>A concentrated focus on water conservation and efficiency</b>                              | a. Develop and maintain a detailed 5-year Water Efficiency Plan consistent with the long-term water efficiency goals for Sydney to save 38 GL/year of drinking water by 2030 and 49 GL/year by 2040. Annually report on progress against this plan <b>by July 2023.</b>                                                                                                                                                                                                      | Sydney Water and DPE—Water                                 |
| <b>Action 2.2</b><br><b>Make best use of the assets we have by optimising use of the Sydney Desalination Plant</b> | a. Amend the Sydney Desalination Plant operating rules to provide flexible operation and optimise its contribution to water supply security and drought management <b>by July 2023.</b>                                                                                                                                                                                                                                                                                      | Sydney Water and DPE—Water                                 |
|                                                                                                                    | b. Report annually on the operation and production of the Sydney Desalination Plant.                                                                                                                                                                                                                                                                                                                                                                                         | Sydney Water                                               |
| <b>Action 2.3</b><br><b>Plan for new infrastructure with a focus on rainfall-independent supply</b>                | a. Complete planning for portfolios of rainfall-independent supply augmentation, system resilience and water security options. This will include how to manage system risks associated with resilience and climate change <b>by July 2023.</b>                                                                                                                                                                                                                               | Sydney Water and WaterNSW                                  |
| <b>Action 2.4</b><br><b>Managing drought</b>                                                                       | a. Maintain a Greater Sydney Drought Response Plan, including implementing the necessary governance, monitoring and reporting arrangements as well as undertaking an annual review and update as required. Publish a summary <b>by July 2023.</b>                                                                                                                                                                                                                            | Sydney Water and WaterNSW                                  |
| <b>Action 2.5</b><br><b>Manage location-specific or asset-specific risks</b>                                       | a. Complete long-term capital and operating plan detailing 20-year investment needs to meet growth, renewals, service standards, and Greater Sydney Water Strategy outcomes adopting an integrated water cycle management approach, <b>by July 2023.</b>                                                                                                                                                                                                                     | Sydney Water and WaterNSW                                  |
|                                                                                                                    | b. Construct and commence operation of a purified recycled water demonstration plant in the Sydney Basin <b>by July 2023.</b> The plant does not form part of Sydney's drinking water supply and any future decision to include purified recycled water would be subject to community consultation and require stringent Government approvals.                                                                                                                               | Sydney Water in consultation with NSW Health               |
|                                                                                                                    | c. Engage with the community to understand preferences for additional water supplies—including the use of purified recycled water—and demand management measures to secure water supplies and to help make Sydney a more liveable city <b>within 3 years.</b> Any new water supply option, including desalination and purified recycled water, would only be introduced to Sydney's water supply system following community consultation and stringent Government approvals. | Sydney Water in consultation with DPE—Water and NSW Health |
| <b>Action 2.6</b><br><b>Respond to the impacts of flood mitigation decisions on the system</b>                     | a. Consider any impacts on water security in response to government decisions about flood mitigation, including Warragamba Dam wall raising <b>within 3 years.</b>                                                                                                                                                                                                                                                                                                           | DPE—Water, Sydney Water and WaterNSW                       |

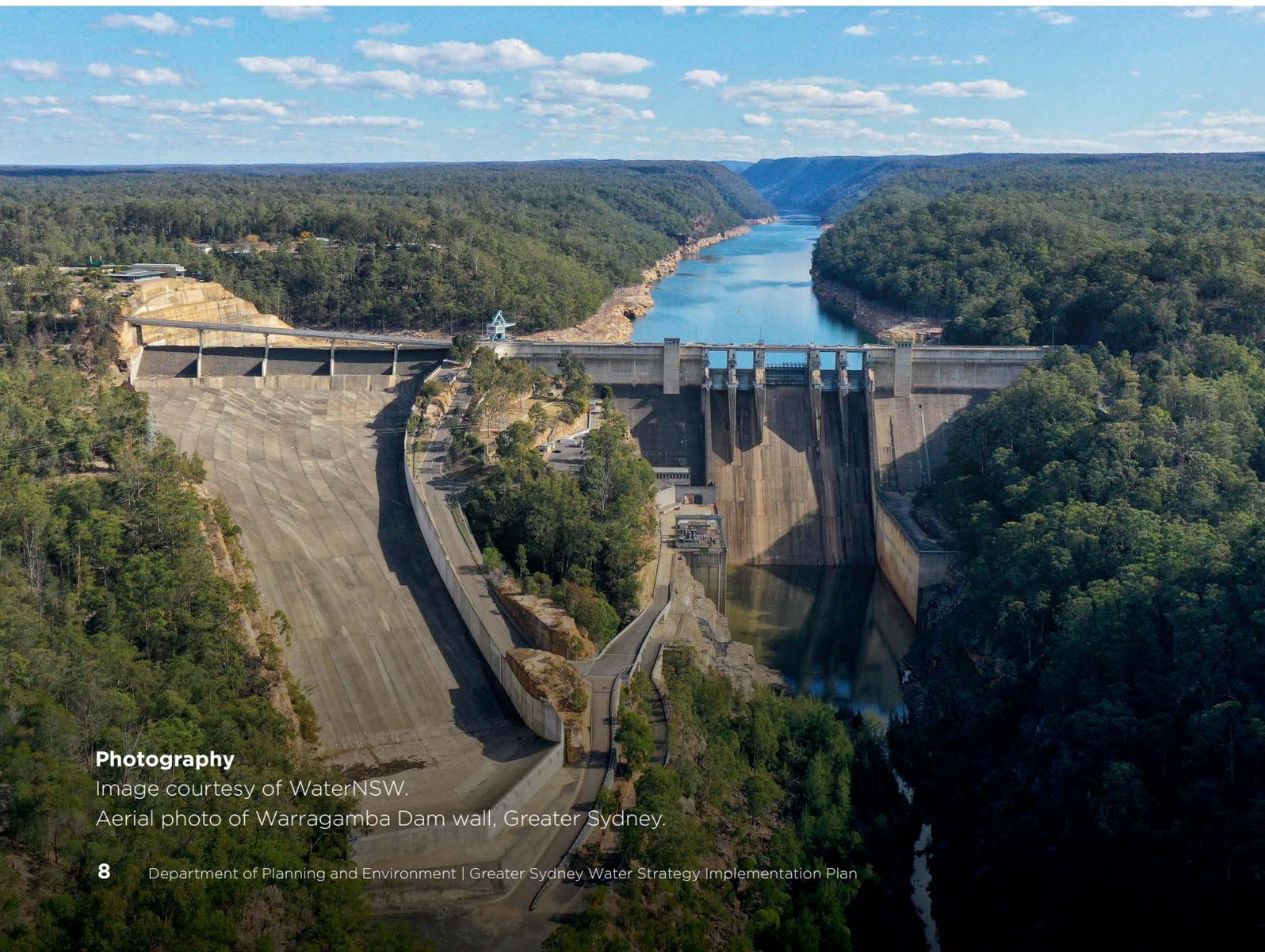
## Priority 3. Our city is green and liveable

| Action                                                                                    | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                                                                                                                 | Primary responsibility                  |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>Action 3.1</b><br><b>Integrate water cycle and land use planning</b>                   | a. Embed integrated water management approaches in land use planning, including changes to regulatory instruments and processes to enable improvements in urban water cycle management <b>within 3 years.</b>                                                                                                                            | Greater Cities Commission and DPE       |
|                                                                                           | b. Complete a strategic plan taking an integrated approach for Sydney's urban water cycle including water, wastewater and stormwater to identify investments needed to address the risks from climate change, ageing infrastructure and a growing population, and to support delivery of waterway health objectives <b>by July 2025.</b> | Sydney Water                            |
| <b>Action 3.2</b><br><b>Support the design principles for Greater Sydney</b>              | a. Review BASIX and NABERS to improve water management and sustainable water use. BASIX review <b>by July 2023</b> and other actions to implement <b>within 3 years.</b>                                                                                                                                                                 | DPE—Water                               |
| <b>Action 3.3</b><br><b>Prioritise alternative water sources for greening and cooling</b> | a. Promote integrated water cycle management (IWCM) approaches to enable alternative water sources to support place-based outcomes including amenity cooling and greening <b>within 3 years.</b>                                                                                                                                         | DPE—Water and Greater Cities Commission |
| <b>Action 3.4</b><br><b>Progress a circular economy approach for water services</b>       | a. Develop a strategy and implementation plan to transition water services in Sydney towards a circular economy model to support delivery of the NSW Government's targets of net zero emissions by 2050 and to reduce emissions by 50% below 2005 levels by 2030, <b>by July 2023.</b>                                                   | Sydney Water and DPE—Water              |
|                                                                                           | b. Explore opportunities to incorporate food, energy, water and waste processing in new or upgraded wastewater treatment facilities <b>within 3 years.</b>                                                                                                                                                                               | Sydney Water                            |

## Priority 4. Our waterways and landscapes are healthy

| Action                                                      | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                          | Primary responsibility                                             |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| <b>Action 4.1<br/>Maintain and improve ecosystem health</b> | a. Update water quality objectives (WQO) for waterways, based on community and Indigenous cultural values in collaboration with councils, Aboriginal communities and local catchment groups, <b>within 3 years.</b>                               | DPE—EHG and DPE—Water                                              |
|                                                             | b. Scope a water quality and river health monitoring governance framework for Greater Sydney's waterways, including assessment of existing data in relation to WQOs <b>within 3 years.</b>                                                        | DPE—EHG, DPE—Water, and Sydney Water supported by councils and EPA |
|                                                             | c. Provide ongoing support to councils preparing coastal management programs <b>within 3 years.</b>                                                                                                                                               | DPE—Water and DPE—EHG                                              |
|                                                             | d. Maintain environmental flows from Greater Sydney's water storages—including progressing a new environmental flow regime for Warragamba Dam—to protect, maintain and enhance river health and recreational opportunities <b>within 3 years.</b> | WaterNSW, DPE—Water and Sydney Water                               |
|                                                             | e. Undertake a baseline monitoring program ahead of the commencement of environmental flows from Warragamba Dam <b>within 3 years.</b>                                                                                                            | WaterNSW and DPE—Water                                             |
|                                                             | f. Monitor any changes to environmental flow regimes—including scaling of flows for drought management—for changes to water quality, fish passage, floating weeds and threatened species downstream of water storages <b>within 3 years.</b>      | WaterNSW and DPE—Water                                             |
|                                                             | g. Assess the potential for highly treated recycled water to substitute for environmental flows <b>within 3 years.</b>                                                                                                                            | WaterNSW and DPE—Water in consultation with NSW Health             |
| <b>Action 4.2<br/>Invest in wastewater management</b>       | a. Deliver priority overflow improvements for Greater Sydney wastewater systems <b>within 3 years.</b>                                                                                                                                            | Sydney Water                                                       |
|                                                             | b. Review the existing monitoring program for Sydney's wastewater ocean outfalls <b>within 3 years.</b>                                                                                                                                           | EPA                                                                |
|                                                             | c. Continue to reduce impacts of nutrient discharges to the Hawkesbury-Nepean system through implementation of new works in line with EPA licence conditions and ongoing research <b>within 3 years.</b>                                          | Sydney Water                                                       |

| Action                                                    | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                                                                          | Primary responsibility                                                        |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Action 4.3</b><br><b>Improve stormwater management</b> | a. Complete a strategic assessment of a regional approach to stormwater management in the Western Parkland City <b>within 3 years.</b>                                                                                                                                                            | DPE—Water                                                                     |
|                                                           | b. Continue to work with local government to improve stormwater management across established suburbs, including measures to improve waterway health and amenity through stormwater renewals and integrated water cycle planning for urban infill and redevelopment areas, <b>within 3 years.</b> | Sydney Water in collaboration with councils                                   |
|                                                           | c. Continue to deliver flood risk management planning and improvements across all suburbs, <b>within 3 years.</b>                                                                                                                                                                                 | DPE—Planning, DPE—EHG and councils                                            |
| <b>Action 4.4</b><br><b>Protect water for recreation</b>  | a. Support councils to identify and implement activities to increase recreational use of waterways, including swimming <b>within 3 years.</b>                                                                                                                                                     | Sydney Water and DPE—Water in collaboration with councils, NSW Health and EPA |



**Photography**

Image courtesy of WaterNSW.  
Aerial photo of Warragamba Dam wall, Greater Sydney.

## Priority 5. Water management and services meet community needs

| Action                                                                                             | What we will deliver over the next 12 months and 3 years                                                                                                                                                               | Primary responsibility                                               |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Action 5.1</b><br><b>Recognise and protect Aboriginal rights, interests and access to water</b> | a. Deliver actions through the NSW Water Strategy <b>within 3 years.</b>                                                                                                                                               | DPE—Water                                                            |
|                                                                                                    | b. Embed Aboriginal water values and knowledge in water planning and management supported by data sovereignty and intellectual property protections <b>within 3 years.</b>                                             | DPE—Water                                                            |
| <b>Action 5.2</b><br><b>Enhance community confidence through engagement and transparency</b>       | a. Share information and continue to engage with the community regarding existing and proposed water services and future supply options <b>within 3 years.</b>                                                         | DPE—Water, Sydney Water and WaterNSW in consultation with NSW Health |
| <b>Action 5.3</b><br><b>Manage price impacts for customers</b>                                     | a. Work with Sydney Water and IPART to identify mechanisms that can lessen price increases and ensure investment in water infrastructure is supported by fair and reasonable pricing structures <b>within 3 years.</b> | DPE—Water supported by Sydney Water and NSW Treasury                 |
|                                                                                                    | b. Facilitate the reintroduction of water developer charges <b>within 3 years.</b>                                                                                                                                     | DPE—Water and Sydney Water                                           |
|                                                                                                    | c. Review and refine hardship policies, concessions and other measures <b>within 3 years.</b>                                                                                                                          | DPE—Water, supported by Sydney Water and NSW Treasury                |



**Photography**

Image courtesy of Department of Planning and Environment.  
Prospect Reservoir, Greater Sydney.

# Monitoring and evaluation

| Action                                                                                               | What we will deliver over the next 12 months and 3 years                                                                                                                                                                                                              | Primary responsibility |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Monitor implementation progress and regularly review and update Greater Sydney Water Strategy</b> | a. Develop and implement a framework for monitoring, reviewing and reporting against the actions in the Greater Sydney Water Strategy Implementation Plan, including quarterly oversight meetings by a Senior Officers Implementation Committee, <b>by July 2023.</b> | DPE—Water              |
|                                                                                                      | b. Publish an annual progress update on delivery of the actions in the Greater Sydney Water Strategy Implementation Plan so that customers and the community can track progress, <b>by July 2023.</b>                                                                 | DPE—Water              |



**Photography**

Image courtesy of WaterNSW.

WaterNSW employee looking over Warragamba Dam, Greater Sydney.



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