

# NSW Water Strategy

Implementation Plan – 2022 to 2024

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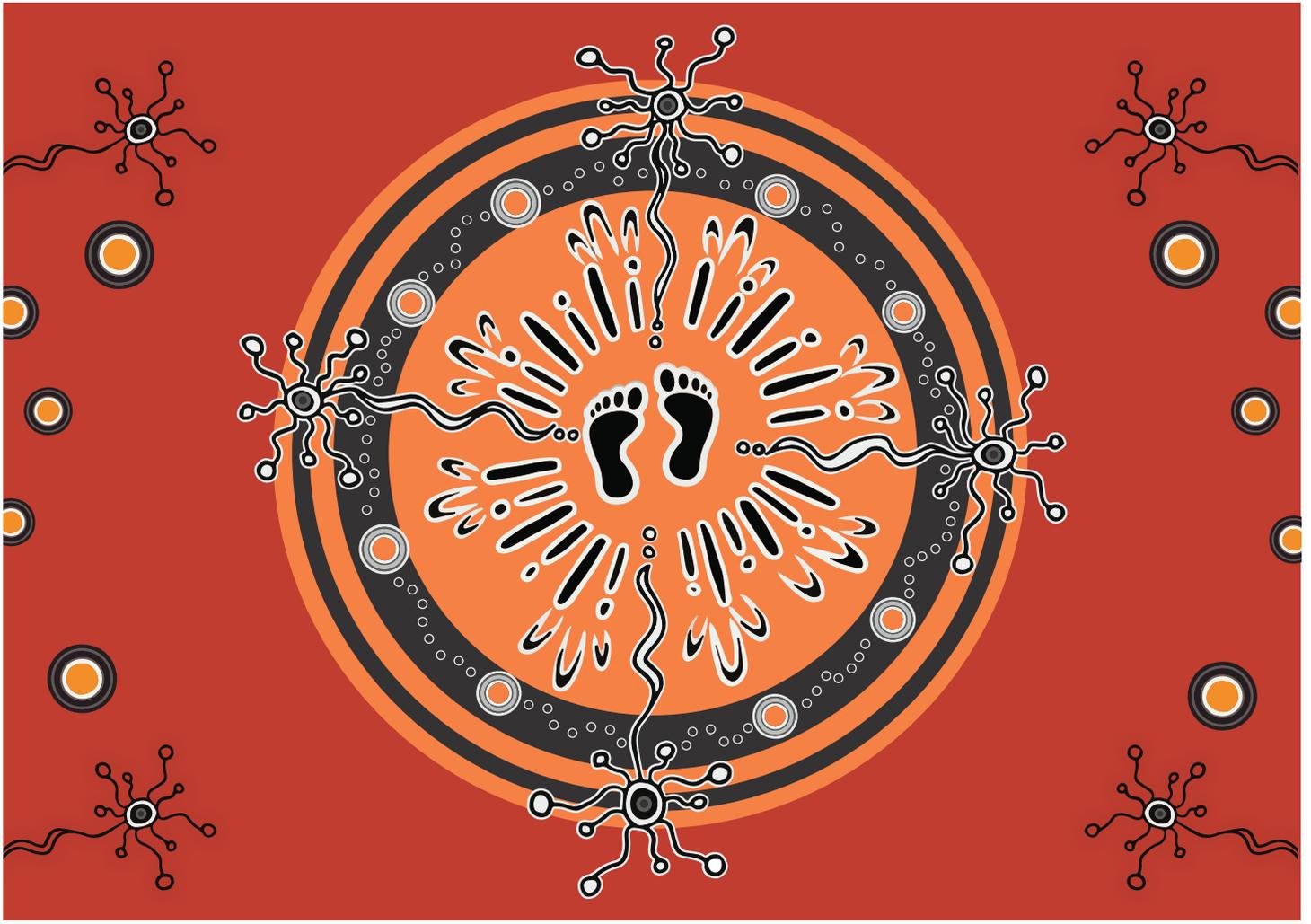
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# Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and waters and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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# NSW Water Strategy

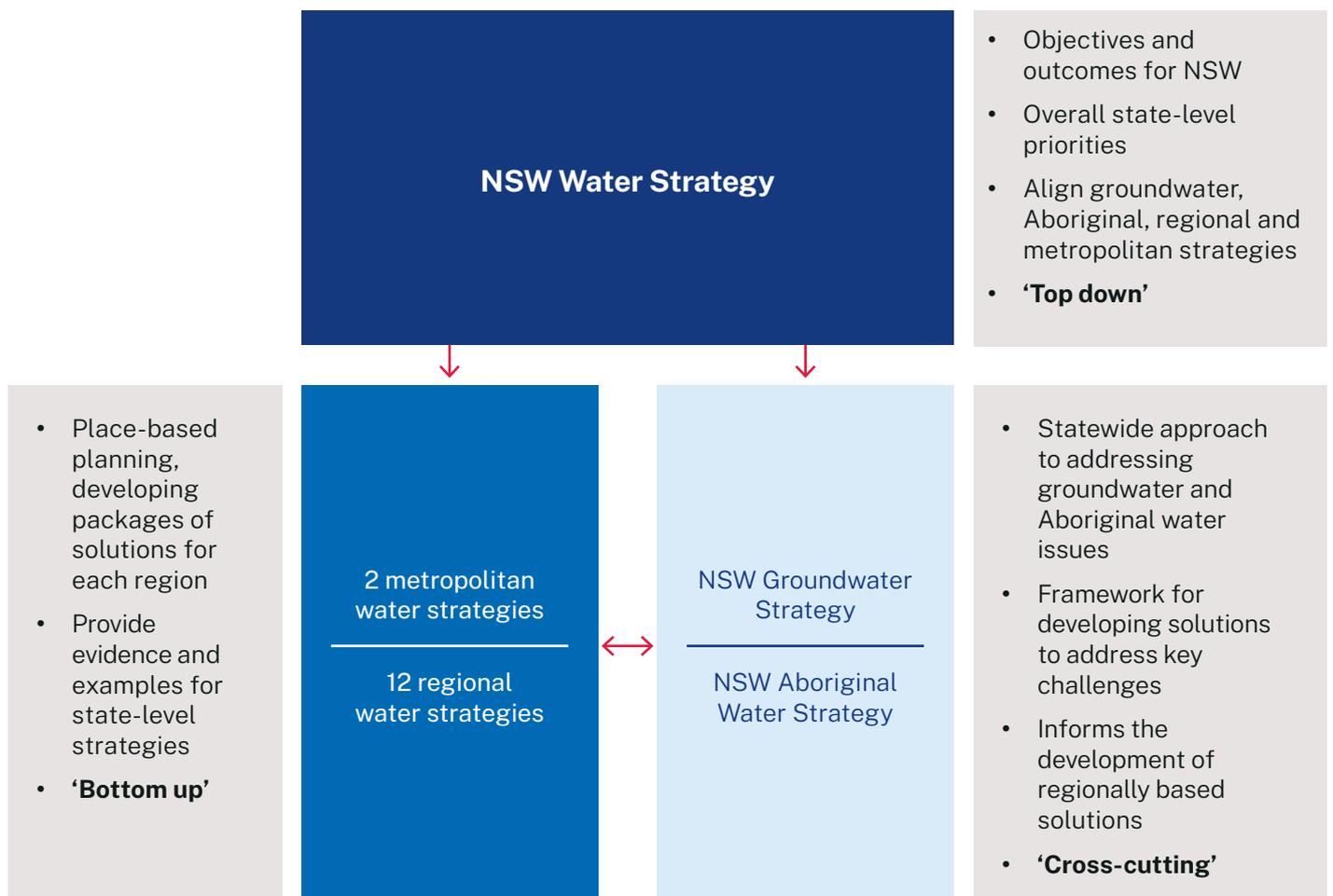
## Our vision

Sustainable water resources for thriving people, places and ecosystems, both now and for future generations.

The NSW Water Strategy was launched in September 2021 and is part of a suite of long-term strategies being developed by the NSW Government to maintain and build the resilience of the state's water services and resources over the coming decades.

This statewide, high-level strategy works in tandem with 14 place-based strategies (2 metropolitan and 12 regional water strategies) and 2 cross-cutting strategies: the NSW Groundwater Strategy and the NSW Aboriginal Water Strategy.

Figure 1. NSW Water Strategy



- Both metropolitan water strategies have been finalised, with the Lower Hunter Water Security Plan released in April 2022, and the Greater Sydney Water Strategy released in August 2022.
- The first regional water strategy – the Greater Hunter Regional Water Strategy – was published in late 2018 and is being implemented. A further 8 final strategies are expected to be published between September and December 2022, with the remaining 3 (Far North Coast, Murray and Murrumbidgee) to continue through second round consultation by the end of 2022.

- The draft NSW Groundwater Strategy was released for consultation in July 2022, and work is underway to co-design the development of the Aboriginal Water Strategy with First Nations/Aboriginal People, with a draft strategy expected to be released in 2023.

# Purpose of the Implementation Plan

This plan describes how the NSW Government will implement the NSW Water Strategy from July 2022 to June 2024.

There are more than 40 actions across 7 priority areas in the NSW Water Strategy focused on improving the security, reliability, quality and resilience of the state's water resources.

This implementation plan sets out a program with a strong focus on delivering outcomes and provides a high-level, realistic outline of how the actions in the Strategy will continue to be implemented.

This implementation plan identifies:

- what we will do over the next 2 years under the 42 actions in the NSW Water Strategy
- who the lead agencies and partners are that will work together to deliver the actions.

Each of the actions in the 2022–2024 Implementation Plan contribute to the 7 strategic priorities in the Strategy, which are focused on meeting core objectives based on the *NSW Water Management Act 2000*. Our set of guiding principles steer the long-term strategic planning for water resource management in NSW, as well as the day-to-day management of the system.

The NSW Water Strategy builds on the progress of the significant water reforms made by the NSW Government to identify emerging program areas required to address water management challenges over the next 20 years.

This implementation plan identifies initiatives that work towards the long-term priorities, objectives and actions of the NSW Water Strategy and is not intended to capture all planned or proposed work or day-to-day 'business as usual' activities across the NSW water sector.

Actions taken through this plan contribute to one or more of these core objectives and align with the guiding principles.

Annual reporting on implementation provides transparency and accountability for delivering the Strategy for the NSW community, and will continue. Our first progress report was released in September 2022.

The NSW Water Strategy will be formally evaluated and updated at least every 5 years.

Figure 2. Our core objectives and guiding principles

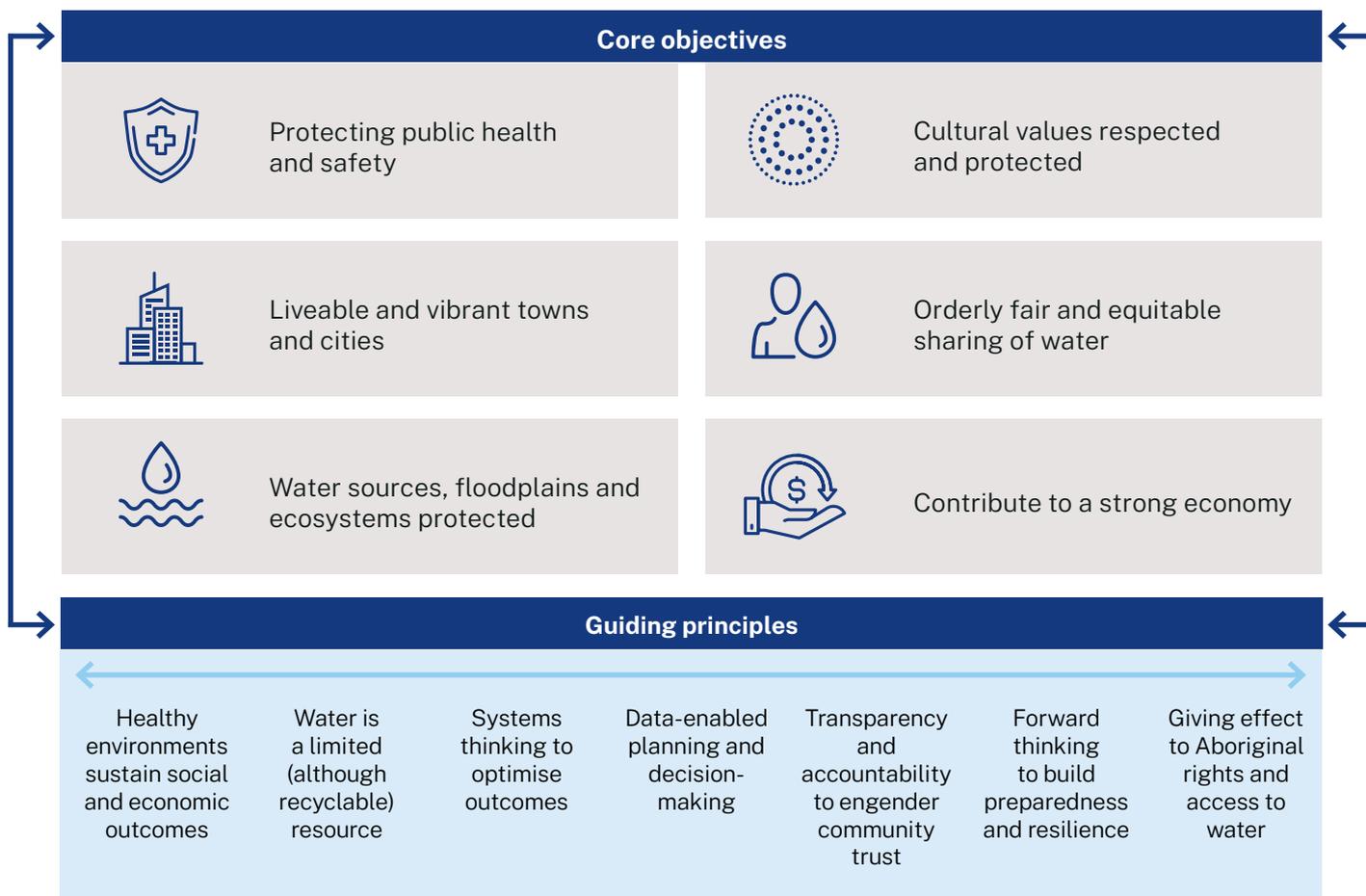


Image courtesy of Destination NSW. Countryside, Tamworth.

# Timeframes

Following a review of the [NSW Water Strategy – Implementation Plan 2021–2022](#), this 2022 to 2024 plan spans a longer timeframe.

Planning implementation over 2 years enables a more strategic approach to delivery. Longer implementation planning supports the NSW Water Strategy Monitoring, Evaluation and Reporting framework, which requires a baseline evaluation of the strategy after 3 years. It also aligns with implementation planning approaches for the metropolitan and regional water strategies, creating an integrated strategic water management framework for reporting and review.

Implementation actions are shown with indicative timeframes in each year. Additionally, actions from the 2021–2022 implementation plan that have commenced and will be delivered with a revised timeframe have been carried over to this implementation plan.

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



Image courtesy of Destination NSW. Menindee Lakes, Menindee.

# Roles and responsibilities for implementation

Responsibility for water management in NSW is shared between federal, state and local governments, authorities and agencies.

This implementation plan captures actions being undertaken by a number of NSW Government agencies as well as State-Owned Corporations – WaterNSW, Sydney Water and Hunter Water – and independent authorities including the Natural Resources Access Regulator (NRAR) and the NSW Environment Protection Authority (EPA).

A summary of agencies responsible for actions in the 2022 to 2024 implementation plan is shown in figure 3.

Local government is a collaborative delivery partner for several actions. The NSW Government is committed to supporting councils deliver outcomes for communities, including through council management and ownership of water supply and sewerage services.

**Figure 3. Summary of NSW Government agencies responsible for implementation actions**

Organisation	Reference in implementation plan
NSW Department of Planning and Environment	DPE
WaterNSW	WaterNSW
Natural Resources Access Regulator	NRAR
Department of Regional NSW	DRNSW
NSW Environment Protection Authority	EPA
NSW Department of Primary Industries	DPI
NSW Health	NSW Health
Sydney Water	Sydney Water
Hunter Water	Hunter Water
Local Land Services	LLS



Image courtesy of Destination NSW. Scenic aerial overlooking the Bellinger River, Fernmount.



Image courtesy of Destination NSW. Hawkesbury River, Wisemans Ferry.

# Summary of actions

## Priority 1. Build community confidence and capacity through engagement, transparency and accountability

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 1.1</b> <b>Improve engagement, collaboration and understanding</b>	<ul style="list-style-type: none"> <li>• Deliver a more customer-focused water licencing and approval system.                             <ul style="list-style-type: none"> <li>– Initial improvements will deliver faster water advice into Planning determinations, with piloted improvements to be tested with targeted stakeholders.</li> <li>– Improvements to Water Management Act licencing processes (including Water Supply Works and Use approvals, and Water Access Licences) including processes for timely notification of conditions, for targeted stakeholder testing.</li> </ul> </li> </ul>	2 years to June 2024	DPE, WaterNSW, NRAR
	<ul style="list-style-type: none"> <li>• Develop and implement an engagement continuous improvement action plan, that considers:                             <ul style="list-style-type: none"> <li>– governance of engagement processes</li> <li>– culturally appropriate and place-focused engagement to enhance 2-way dialogue with stakeholders</li> <li>– accessibility of engagement and communications</li> <li>– expansion and targeting of the monthly Water Engagement Roundup webinar, a ‘Water 101’ factsheet series to explain water management fundamentals, and monthly departmental eNewsletter to ensure people can see what’s new or changing.</li> </ul> </li> </ul>	Action plan by December 2022	DPE
	<ul style="list-style-type: none"> <li>• Measure and report on customer/community confidence and trust to monitor and evaluate the effectiveness of engagement and communication over time.</li> </ul>	Annually	DPE
	<ul style="list-style-type: none"> <li>• Coordinate customer engagement about current and proposed water management and service delivery activities of the department, NRAR and WaterNSW to inform the 2024 pricing submission to the Independent Pricing and Regulatory Tribunal (IPART).</li> </ul>	Over 2 years to June 2024	DPE, NRAR, WaterNSW
	<ul style="list-style-type: none"> <li>• Publicly report on progress of all commitments made in response to recommendations from inquiries, reviews and audits.</li> </ul>	September 2022	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 1.2</b> <b>Increase the amount and quality of publicly available information about water in NSW</b>	<ul style="list-style-type: none"> <li>Continuous improvement of the department's Water website, the Water Insights portal and Water Information dashboards as the department's primary tool for communication and access to water-related information for customers, the community and compliance authorities.</li> </ul>	Ongoing	DPE, WaterNSW
	<ul style="list-style-type: none"> <li>Expand the hydrometric network and install 20 new or improved gauging stations to improve network coverage/increase understanding of the flows in the system.</li> </ul>	By March 2024	DPE
	<ul style="list-style-type: none"> <li>Develop a new water balance tool to provide greater transparency about where water is in the environment.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Implement the department's Water Open Data Framework. <ul style="list-style-type: none"> <li>Commence a program of publication of existing data on the Sharing and Enabling Environmental Data (SEED) website.</li> </ul> </li> </ul>	From December 2022	DPE
	<ul style="list-style-type: none"> <li>Publish official water sharing plan maps in a more user-friendly format.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Improve the quality and accessibility of groundwater data.</li> </ul>	By June 2024	DPE
	<b>Action 1.3</b> <b>Enhance modelling capabilities and make more data and models openly available</b>	<ul style="list-style-type: none"> <li>Develop 'Best practice guidelines for water modelling and data use' incorporating stakeholder feedback that will ensure that all models are fit for purpose, and that modelling is of the highest quality.</li> </ul>	By June 2023
<ul style="list-style-type: none"> <li>Undertake a pilot project to make publicly available climate data, catchment models, and pre-development flow models for selected catchments in NSW.</li> </ul>		By December 2022	DPE
<ul style="list-style-type: none"> <li>Use the findings of the pilot to progressively make available climate data, catchment models, pre-development flow models for select catchments through the Open Data Framework.</li> </ul>		From June 2023	DPE
<ul style="list-style-type: none"> <li>Work with the Australian Government and other jurisdictions to deliver the Integrated River Modelling Uplift program.</li> </ul>		By June 2024	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 1.4 Reinforce the effectiveness of the Natural Resources Access Regulator</b>	<ul style="list-style-type: none"> <li>Release the NRAR annual regulatory priorities for the 2022–23 water year, which will commit to a continued focus on supporting the metering reforms and ensuring compliance in the irrigated agriculture sector.</li> </ul>	By August 2022	NRAR
	<ul style="list-style-type: none"> <li>Release the NRAR annual progress report that outlines compliance and enforcement work undertaken to deliver on the annual regulatory priorities for 2021–22.</li> </ul>	By December 2022	NRAR
	<ul style="list-style-type: none"> <li>Publish all compliance outcomes on the NRAR website and prepare an interactive quarterly compliance report for ease of access by stakeholders and the public.</li> </ul>	From September 2022	NRAR
	<ul style="list-style-type: none"> <li>Undertake a range of education and advisory programs across the state including on-farm and at field days, attending advisory group meetings and other stakeholder gatherings to clarify license obligations and assist water users to comply.</li> </ul>	Ongoing	NRAR
	<ul style="list-style-type: none"> <li>Pioneer the use of innovative compliance techniques using spatial imagery, aerial photography, drones and bathymetric depth sounders – all of which improve the ability to collect compliance data and its evidentiary quality.</li> </ul>	Ongoing	NRAR
<b>Action 1.5 Take the final steps in floodplain harvesting reform</b>	<ul style="list-style-type: none"> <li>Finalise and commence the floodplain harvesting licensing framework for the Border Rivers, Gwydir, Namoi, Macquarie and Barwon–Darling floodplain areas.</li> </ul>	By June 2023	DPE, WaterNSW
	<ul style="list-style-type: none"> <li>Undertake compliance and enforcement activity with respect to floodplain harvesting licences and approvals in accordance with NRAR’s published regulatory priorities and compliance reporting commitments.</li> </ul>	Ongoing	NRAR
<b>Action 1.6 Review the regulation of domestic and stock basic landholder rights</b>	<ul style="list-style-type: none"> <li>Conduct a case study on domestic and stock basic landholder rights to collect evidence, quantify risks and scope potential solutions for any significant issues identified through targeted engagement.</li> </ul>	By December 2023	DPE
	<ul style="list-style-type: none"> <li>Publish a discussion paper about domestic and stock basic landholder rights management and water usage and consult with the community to confirm key issues.</li> </ul>	By December 2023	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 1.7</b> <b>Make sure the majority of non-urban water take, including floodplain harvesting, in NSW is accurately measured</b>	<ul style="list-style-type: none"> <li>• Increase awareness of the telemetry rebate program through a range of communications that meet the needs of water users.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>• Engage with water users and key stakeholders to support the rollout of floodplain harvesting metering and measurement implementation.</li> </ul>	From July 2022	DPE
	<ul style="list-style-type: none"> <li>• Increase guidance for water users on information required to substantiate an exemption and promote exemptions that already apply.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>• Accelerate multiple solutions for sensor telemetry and data collection.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>• Pursue opportunities to increase the number of certified installers of metering and measurement equipment.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>• Continue to engage with water users to equip them with the information they need to comply with the non-urban water metering rules.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>• Undertake compliance and enforcement activities to support continued rollout and implementation of the non-urban metering regime in accordance with NRAR’s published regulatory priorities and compliance reporting commitments.</li> </ul>	Ongoing	NRAR

## Priority 2. Recognise First Nations/Aboriginal People's rights and values and increase access to and ownership of water for cultural and economic purposes

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 2.1 Strengthen the role of First Nations/ Aboriginal People in water planning and management</b>	<ul style="list-style-type: none"> <li>Continue to develop an engagement framework that describes when and how we engage with First Nations/Aboriginal People and peak organisations in an inclusive and culturally appropriate way, with continued consultation with peak bodies and Aboriginal Community Controlled Organisations.</li> </ul>	By June 2023 and ongoing	DPE
	<ul style="list-style-type: none"> <li>Establish and support appropriate engagement and consultation forums and relationships, such as partnerships and committees, to strengthen the role of First Nations/Aboriginal People in water management.</li> </ul>	Ongoing	DPE
<b>Action 2.2 Develop a statewide Aboriginal Water Strategy</b>	<ul style="list-style-type: none"> <li>Continue the development of the draft Aboriginal Water Strategy, with an initial focus on scoping and co-design of the principles, process and engagement model for consultation on the strategy.</li> </ul>	From July 2022	DPE
	<ul style="list-style-type: none"> <li>Release a draft Aboriginal Water Strategy for public consultation.</li> </ul>	By September 2023	DPE
	<ul style="list-style-type: none"> <li>Finalise the Aboriginal Water Strategy, incorporating feedback received on the draft.</li> </ul>	By December 2023	DPE
<b>Action 2.3 Provide Aboriginal ownership of and access to water for cultural and economic purposes</b>	<ul style="list-style-type: none"> <li>Contribute to national processes to confirm the inland waters target under the National Agreement on Closing the Gap.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Undertake activities to progress outcomes under the National Agreement on Closing the Gap, in consultation with First Nations/Aboriginal People.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Develop and implement a pilot to test methodology for cultural flows.</li> </ul>	By December 2024	DPE
	<ul style="list-style-type: none"> <li>Continue work as part of the whole-of-government negotiating team for native title determinations and Indigenous Land Use Agreements and address native title issues in water sharing plans as they are amended or remade.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Deliver native title training to staff undertaking water management functions to ensure compliance with statutory obligations and support the intended beneficial outcomes of the native title regime.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Review existing policy and regulatory frameworks to identify opportunities for greater Aboriginal access and ownership of water.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Provide information to make it easier to navigate the licensing framework to access and use water for cultural purposes.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Identify existing and/or design new materials and mechanisms to support negotiating use of, and access to, culturally significant sites.</li> </ul>	By December 2023	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 2.4 Work with First Nations/Aboriginal People to improve shared water knowledge</b>	• Embed cultural competency training and programs for new and current staff in the NSW water sector.	Ongoing	DPE
	• Launch the Aboriginal water homepage on the department's Water webpage.	By June 2023	DPE
	• Provide information to make it easier to navigate the licensing framework to access and use water for cultural purposes.	Ongoing	DPE
	• Develop methodology and mechanisms with First Nations/Aboriginal People to address their aspirations, values, and knowledge for environmental water management.	By June 2024	DPE
	• Partner with land and water managers to roll out the Local Land Services Aboriginal Ranger Program to increase the inclusion of traditional land management practices in on-ground projects and programs across the state and provide employment and training opportunities.	By June 2024	LLS
<b>Action 2.5 Work with First Nations/Aboriginal People to maintain and preserve water-related cultural sites and landscapes</b>	• Develop and implement a new framework for Aboriginal cultural heritage assessments for all water infrastructure projects in NSW.	From August 2022	DPE
	• Facilitate consultation with First Nations/Aboriginal People on all Water Infrastructure NSW projects through a dedicated First Nations engagement team to allow First Nations' wisdom and experience to be considered and incorporated into project decisions.	Ongoing	DPE

## Priority 3. Improve river, floodplain and aquifer ecosystem health, and system connectivity

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 3.1</b> <b>Consider NSW Long Term Water Plans to protect and enhance ecological systems</b>	<ul style="list-style-type: none"> <li>Provide advice on the application of Long Term Water Plans (environmental objectives, targets and watering requirements) to environmental water advisory groups, major projects and programs, review of water sharing plans and development of regional water strategies.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Explore options with First Nations/Aboriginal People as to how they want to be represented on environmental water advisory groups (EWAGs) and how they want their annual environmental water planning and priorities included in EWAG processes.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Provide training and support to EWAG members to further develop their cultural competence and capacity.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Scope and commence technical work to improve understanding of the impacts of climate change on the management of water for the environment.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop a case study in one NSW catchment focusing on incorporating climate change predictions into hydrological models for environmental water and test different delivery strategies.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Develop methodology and mechanisms with First Nations/Aboriginal People to address their aspirations, values, and knowledge into LTWPs and annual planning.</li> </ul>	By June 2024	DPE
<b>Action 3.2</b> <b>Take landscape-scale action to improve river and catchment health</b>	<ul style="list-style-type: none"> <li>Finalise the regional water strategies to identify priority areas for targeted catchment management initiatives.</li> </ul>	From December 2023	DPE, LLS
	<ul style="list-style-type: none"> <li>Secure funding to implement these initiatives through a multifaceted approach.</li> </ul>	Ongoing	DPE, LLS
	<ul style="list-style-type: none"> <li>Transition floodplain management plans in the southern Murray–Darling Basin to the Water Management Act to provide a framework for coordinating flood work development, improve the environmental health of floodplains and manage the risks to life and property from flooding events.</li> </ul>	Commencing 2022 and ongoing	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 3.3</b> <b>Take action to address threats to native fish</b>	<ul style="list-style-type: none"> <li>Continue to improve fish passage at priority sites as guided by the NSW Fish Passage Strategy, including pursuit of funding pathways.</li> </ul>	By June 2025	DPI, WaterNSW, DPE
	<ul style="list-style-type: none"> <li>Review and update the Cold Water Pollution Strategy and guidelines for management that aims to reduce the impact that releases from major dams can have on downstream environments.</li> </ul>	By June 2023	DPI
	<ul style="list-style-type: none"> <li>Commence planning, examine funding pathways and implement of cold water pollution related works at priority sites.</li> </ul>	By June 2023 and ongoing	DPI
	<ul style="list-style-type: none"> <li>Finalise the NSW Diversion Screening Strategy that aims to sustain native fish populations and protect vital irrigation infrastructure.</li> </ul>	By June 2023	DPI
	<ul style="list-style-type: none"> <li>Commence implementation of fish friendly diversion works at priority sites in the northern Basin.</li> </ul>	From July 2022	DPI
<b>Action 3.4</b> <b>Invest in long-term and effective monitoring, evaluation, reporting and research</b>	<ul style="list-style-type: none"> <li>Consider integrated approaches to monitoring, evaluation and reporting (MER) to identify common indicators and data sources and timing of evaluations to inform future approaches to MER delivery.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Implement MER frameworks for all water strategies to inform an adaptive management approach.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Finalise a Water Sharing Plan Evaluation Program, including developing and testing methods for social, environmental and economic impact evaluation.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>Continue monitoring and reporting on environmental water delivery and management to inform adaptive management and upcoming Long Term Water Plan reviews and meet reporting requirements under the Basin Plan.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Expand the environmental water MER program into a further 4 NSW Basin valleys.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>Revise and publish an updated River Condition Index to provide a long-term reporting tool for assessing change in riverine condition.</li> </ul>	By December 2022	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 3.5</b> <b>Adopt a more intense, statewide focus on water quality</b>	<ul style="list-style-type: none"> <li>Prepare a water quality roadmap of roles and responsibilities for water quality management and monitoring across NSW, and consider options to address gaps, remove duplication or uncertainty and improve water quality governance arrangements.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Publish a Water quality incident management plan for hypoxic events.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>Establish and support a governance framework to ensure the clear, coordinated and effective management of diffuse source water pollution across NSW.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Continue to support the preparation and implementation of Coastal Management Programs by councils to achieve the objectives of the <i>Coastal Management Act 2016</i> that may include actions to maintain and improve water quality and estuary health, supported by monitoring and evaluation.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>Consult on the review of the NSW Water Quality Objectives in coastal catchments to ensure they reflect contemporary community environmental values and uses.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Deliver a capacity building program to provide training on how to use the water quality objectives in environmental and land use planning, via a risk-based framework.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop an integrated website of water quality objectives for catchments across NSW.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Integrate updated NSW Water Quality Objectives with the NSW Common Planning Assumptions.</li> </ul>	By June 2024	DPE
<b>Action 3.6</b> <b>An enhanced, statewide focus on sustainable groundwater management</b>	<ul style="list-style-type: none"> <li>Consult on the draft NSW Groundwater Strategy, setting the strategic priorities for long-term groundwater resource management in NSW to support the state's economy, communities and the environment.</li> </ul>	From July 2022	DPE
	<ul style="list-style-type: none"> <li>Develop a final NSW Groundwater Strategy and implementation plan.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>Commence implementation of the NSW Groundwater Strategy.</li> </ul>	From January 2023	DPE
<b>Action 3.7</b> <b>Work with communities to better understand and improve system connectivity</b>	<ul style="list-style-type: none"> <li>Finalise the Western Regional Water Strategy and identify priority connectivity actions.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Finalise critical dry triggers for temporary water restrictions that aim to reduce the risk of critical water shortages to water-dependent environments and failure of surface water supply to communities.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Remake the Barwon–Darling Water Sharing Plan.</li> </ul>	No later than June 2025	DPE
	<ul style="list-style-type: none"> <li>Continue to implement the recommendations of the Independent Panel Assessment of the Management of the 2020 Northern Basin First Flush Event, as outlined in the NSW Government response and provide an update report on implementation annually.</li> </ul>	Ongoing	DPE

## Priority 4. Increase resilience to changes in water availability (variability and climate change)

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 4.1</b> <b>New actions to improve and apply our understanding of climate variability and change</b>	<ul style="list-style-type: none"> <li>Commence development of a set of methodologies to progressively incorporate climate risk data into water sharing plan and water management decision-making.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Use the findings of the pilot for delivery of climate risk data (see Action 1.3) to inform the wider roll-out of a data delivery platform for local water utilities for strategic service and drought management planning.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Continue to update climate modelling for Greater Sydney and the Lower Hunter and consider outcomes for future supply and demand projections and future planning.</li> </ul>	Ongoing	DPE, Sydney Water, Hunter Water
<b>Action 4.2</b> <b>Review water allocation and water sharing in response to new climate information</b>	<ul style="list-style-type: none"> <li>Commence a desktop pilot – informed by the regional water strategies – in a specific valley to test scenarios for water availability and allocations in that area based on predicted climate risk modelling scenarios.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop and consult on a discussion paper that identifies options for incorporating climate risk information into water allocation decision making, informed by findings of the desktop pilot.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Expand application of the pilot to other valleys and engage with key water users in pilot valleys to discuss options, outputs and findings.</li> </ul>	By June 2024	DPE
<b>Action 4.3</b> <b>Improve drought planning, preparation and resilience</b>	<ul style="list-style-type: none"> <li>Update the Extreme Events Policy to reflect lessons learnt from the recent drought.</li> </ul>	By December 2022	DPE
	<ul style="list-style-type: none"> <li>Continue to implement the actions in the Future Ready Regions Strategy in a flexible and responsive way to support an adaptive management approach to implementation.</li> </ul>	Ongoing	DRNSW, DPI, DPE
	<ul style="list-style-type: none"> <li>Develop Regional Drought Resilience Plans and Regulated River Drought Management Plans to support communities and industries plan for future droughts.</li> </ul>	By June 2024	DRNSW, WaterNSW, DPE
	<ul style="list-style-type: none"> <li>Consider the findings of a comprehensive evaluation into the 2018-2020 Emergency Drought Relief Package to inform sustainable long-term investment approaches to designing future drought support measures and initiatives.</li> </ul>	By June 2024	DRNSW, DPE
	<ul style="list-style-type: none"> <li>Commence broader engagement on potential approaches to harmonised water restrictions for urban water supplies to inform our next steps.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop Drought Response Plans for the Lower Hunter and Greater Sydney to guide drought response for metropolitan water supplies with a focus on cross-agency collaboration.</li> </ul>	By June 2023 (Greater Sydney)	Hunter Water, Sydney Water
			By December 2023 (Lower Hunter)

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 4.4 Better integrate land use planning and water management</b>	<ul style="list-style-type: none"> <li>• Make improvements to governance, regulatory and advisory functions to enable better outcomes for water management through strategic land use planning and development assessment pathways.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>• Develop and implement integrated water cycle management pilots in Western Sydney.</li> </ul>	By June 2023	DPE, Sydney Water
	<ul style="list-style-type: none"> <li>• Review the Building Sustainability Index (BASIX) to understand the effectiveness and appropriateness in delivering water efficiency outcomes and inform the development of new policy settings.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>• Embed water security analysis into Regional Plans.</li> </ul>	June 2023	DPE
	<ul style="list-style-type: none"> <li>• Identify opportunities for land use planning frameworks to respond to water management and resilience outcomes in light of climate risk assessments.</li> </ul>	Ongoing	DPE
	<ul style="list-style-type: none"> <li>• Through the Groundwater Strategy Implementation Plan, establish criteria to identify critical groundwater resources and develop spatial products and data to allow for identification and mapping.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>• Support the implementation of the Risk-based framework for considering waterway health outcomes in strategic land use planning decisions.</li> </ul>	Ongoing	DPE

## Priority 5. Support economic growth and resilient industries within a capped system

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 5.1</b> Provide greater certainty to regional businesses that rely on secure access to water	<ul style="list-style-type: none"> <li>Proactively provide information on water availability, security and risk to inform major government land use and investment decisions.</li> <li>Finalise Master Plans for all Special Activation Precincts and give effect to these through State Environmental Planning Policy Regions and Precincts.</li> <li>Continue to work with local councils to implement the Regional Job Precinct Program that promotes economic growth and employment in key regional precincts in NSW. Commence community engagement on draft Master Plans to inform their review and completion.</li> </ul>	<p>Ongoing</p> <p>June 2023</p> <p>By June 2023</p>	<p>DRNSW, DPE</p> <p>DRNSW, DPE</p> <p>DRNSW, DPE</p>
<b>Action 5.2</b> Invest in R&D and new technologies to lift water productivity in NSW industries	<ul style="list-style-type: none"> <li>Invest in an expanded Farms of the Future program to accelerate the adoption of 'ag-tech' enabled production methods that make farms more efficient, profitable and resilient.</li> <li>Continue a range of funded R&amp;D activities to measure and improve water productivity in irrigated agriculture.</li> <li>Continue building understanding of groundwater flow in the Great Artesian Basin to improve groundwater supply security for agriculture and primary industries.</li> <li>Invest in research development initiatives to investigate options to reduce evaporation from water storages.</li> </ul>	<p>By June 2024</p> <p>Ongoing</p> <p>Ongoing</p> <p>By June 2024</p>	<p>DPI, DRNSW</p> <p>DPI</p> <p>DPE</p> <p>Hunter Water</p>
<b>Action 5.3</b> Improve the operation and transparency of water trade in NSW	<ul style="list-style-type: none"> <li>Work with Basin jurisdictions to implement agreed initiatives arising from the Murray-Darling Basin Water Market Reform Roadmap.</li> </ul>	Ongoing	DPE, WaterNSW
<b>Action 5.4</b> Identify infrastructure and operational options for each region of NSW	<ul style="list-style-type: none"> <li>Deliver over \$600 million in water infrastructure programs and projects in 2022-23 across direct and indirectly delivered projects and grants programs.</li> <li>Develop implementation plans for all metropolitan and regional water strategies, supported by monitoring, evaluation and reporting frameworks.</li> </ul>	<p>From June 2022</p> <p>From June 2022</p>	<p>DPE</p> <p>DPE, Sydney Water, Hunter Water</p>
<b>Action 5.5</b> Investigate causes of underuse and develop options to bring use back up to cap	<ul style="list-style-type: none"> <li>Finalise the Murray and Murrumbidgee regional water strategies including identifying options to provide evidence on possible causes of any underuse and for an opportunity to use water up to, but not exceeding the sustainable diversion limit.</li> </ul>	By September 2023	DPE

## Priority 6. Support resilient, prosperous and liveable cities and towns

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 6.1</b> <b>Increase resilience to changes in climate and water availability in Greater Sydney and the Lower Hunter</b>	<ul style="list-style-type: none"> <li>Release the final Greater Sydney Water Strategy.</li> </ul>	By September 2022	DPE
	<ul style="list-style-type: none"> <li>Implement the Greater Sydney Water Strategy and Lower Hunter Water Security Plan in accordance with their respective implementation plans.</li> </ul>	Ongoing	Sydney Water, Hunter Water
	<ul style="list-style-type: none"> <li>Develop monitoring, evaluation and reporting frameworks for the Greater Sydney Water Strategy and Lower Hunter Water Security Plan to support effective and efficient delivery, build understanding of progress, communicate achievement of outcomes and support adaptive management.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Amend the Sydney Desalination Plant operating rules to optimise its contribution to water supply security.</li> <li>Progress planning approvals for a desalination plant at Belmont to provide a future rainfall independent water supply for the Lower Hunter.</li> </ul>	By July 2023 By June 2024	DPE Hunter Water
<b>Action 6.2</b> <b>Work collaboratively with local water utilities to reduce risks to town water supplies</b>	<ul style="list-style-type: none"> <li>Support local water utilities in their delivery of water supply and sewerage services for healthy and resilient communities. Implement a new collaboration framework, endorsed by all regulators, to avoid duplication and inconsistency costs for utilities.</li> </ul>	Ongoing	DPE, EPA, NSW Health
	<ul style="list-style-type: none"> <li>Set policy, regulate and make regulatory decisions, provide oversight and assurance, monitor and report on performance.</li> </ul>	Report annually	DPE, EPA, NSW Health
	<ul style="list-style-type: none"> <li>Support local water utilities manage and reduce risks.</li> </ul>	Ongoing	DPE, EPA, NSW Health
<b>Action 6.3</b> <b>Deliver a new Town Water Risk Reduction Program</b>	<ul style="list-style-type: none"> <li>Complete Phase 1 of the Town Water Risk Reduction Program and its evaluation including: <ul style="list-style-type: none"> <li>co-design with the local government sector a new regulatory and assurance framework to ensure regulation is modern, risk-based and outcomes focused</li> <li>co-create with the training, local government and water sectors a plan to address barriers for water operators</li> <li>through pilot initiatives, investigate opportunities to improve collaboration between local water utilities and evaluate their effectiveness</li> <li>through pilot initiatives, investigate and evaluate new approaches to support local water utilities by State-Owned Corporations</li> <li>analyse the financial needs and capacity of diverse local water utilities to meet their service obligations in their local circumstances, to inform future policies</li> <li>improve support for councillors as the governance and decisions-makers of local water utilities.</li> </ul> </li> </ul>	By December 2022	DPE, Sydney Water, Hunter Water, WaterNSW, NSW Health, EPA

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 6.3</b> <b>Deliver a new Town Water Risk Reduction Program (continued)</b>	<ul style="list-style-type: none"> <li>Implement the new regulatory and assurance framework for local water utilities including: <ul style="list-style-type: none"> <li>new strategic planning provisions for local water utilities through a staged approach</li> <li>structural changes to support the department's advisory and regulatory roles for local water utilities.</li> </ul> </li> </ul>	From July 2022	DPE, WaterNSW, NSW Health, EPA
	<ul style="list-style-type: none"> <li>Implement Phase 2 of the Town Water Risk Reduction Program and its evaluation including: <ul style="list-style-type: none"> <li>two year Skills and Training Action Plan to address the water technical skill shortages of regional and remote councils</li> <li>investigate options for alternative funding arrangements of local water utilities</li> <li>continued support for councillors as the governance and decisions-makers of local water utilities</li> <li>continue programs to reduce risks through collaboration, sharing of information and leverage of the capabilities of WaterNSW.</li> </ul> </li> </ul>	From October 2022	DPE, WaterNSW, NSW Health, EPA
<b>Action 6.4</b> <b>Continue to deliver the Safe and Secure Water Program</b>	<ul style="list-style-type: none"> <li>Deliver the Safe and Secure Water Program to support local water utilities reduce risks in urban water systems.</li> </ul>	From July 2022	DPE
<b>Action 6.5</b> <b>Continue to work with suppliers of drinking water to effectively manage drinking water quality and safety</b>	<ul style="list-style-type: none"> <li>Continue to support water utilities to assess water quality risks and implement Drinking Water Management Systems.</li> </ul>	Ongoing	NSW Health
	<ul style="list-style-type: none"> <li>Continue to provide guidance and support to private water suppliers and water carters on managing drinking water safety in their operations.</li> </ul>	Ongoing	NSW Health
	<ul style="list-style-type: none"> <li>Improve consistency of drinking water quality regulation and incident management for local water utilities.</li> </ul>	Ongoing	NSW Health
	<ul style="list-style-type: none"> <li>Continue to provide expert advice, training and support to water utilities on drinking water quality management.</li> </ul>	Ongoing	NSW Health
<b>Action 6.6</b> <b>A new statewide Water Efficiency Framework and program</b>	<ul style="list-style-type: none"> <li>Finalise and publish the Water Efficiency Framework.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Continue to deliver water efficiency projects and initiatives in metropolitan and regional areas.</li> </ul>	Ongoing	DPE, Sydney Water, Hunter Water
	<ul style="list-style-type: none"> <li>Continue the implementation of the Regional Leakage Reduction Program in collaboration with local water utilities to identify and reduce water losses.</li> </ul>	Ongoing	DPE

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 6.7</b> <b>Proactive support for water utilities to diversify sources of water</b>	<ul style="list-style-type: none"> <li>Provide information to local water utilities to improve understanding of the planning and lead in times required for alternate water sources to be considered.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop a draft Recycled Water Roadmap for consultation, informed by targeted engagement with water utilities and other stakeholders.</li> </ul>	By June 2023	DPE, NSW Health, EPA
	<ul style="list-style-type: none"> <li>Consult on and finalise the Recycled Water Roadmap which will identify policy and regulatory options based on the feedback from consultation.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Develop and release a draft discussion paper on stormwater for consultation. The discussion paper will be informed by case studies to consider options on a draft regulatory framework for stormwater harvesting.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Develop and consult on a draft policy framework for stormwater harvesting, informed by feedback from consultation on the stormwater harvesting discussion paper.</li> </ul>	By June 2024	DPE
	<ul style="list-style-type: none"> <li>Implement the new regulatory framework for local water utilities that will improve the regulatory and advisory role of the department in assessing and approving new infrastructure works under section 60 of the <i>Local Government Act 1993</i>.</li> </ul>	From July 2022	DPE
	<ul style="list-style-type: none"> <li>Develop resources in collaboration with water utilities that will enable water utilities to progress community engagement about diverse sources of water.</li> </ul>	By June 2023	DPE
<b>Action 6.8</b> <b>Investigate and enable managed aquifer recharge</b>	<ul style="list-style-type: none"> <li>Commence the development of a policy framework for managed aquifer recharge (MAR) with a priority on MAR for town water supplies.</li> </ul>	By June 2023	DPE
	<ul style="list-style-type: none"> <li>Undertake desktop analysis of potential MAR sites to consider scientific and economic feasibility, guided by the regional water strategies.</li> </ul>	By June 2024	DPE
<b>Action 6.9</b> <b>Promote and improve Integrated Water Cycle Management</b>	<ul style="list-style-type: none"> <li>Develop a statewide Integrated Water Cycle Management (IWCM) framework.</li> </ul>	By December 2023	DPE
	<ul style="list-style-type: none"> <li>Identify next steps and key priorities from Western Parklands City to support IWCM approaches.</li> </ul>	By June 2023	DPE, Sydney Water
	<ul style="list-style-type: none"> <li>Implement the new regulatory framework for local water utilities that provides greater flexibility to align strategic planning for water and wastewater services with IWCM approaches.</li> </ul>	From July 2022	DPE
	<ul style="list-style-type: none"> <li>Develop long-term capital and operating plan for Greater Sydney to detail 20-year investment needs to meet growth, renewals, service standards, and water strategy outcomes adopting an integrated water cycle management approach.</li> </ul>	By July 2023	Sydney Water

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 6.10</b> Enable private sector involvement in the NSW water sector	• Transition all existing licences into new the framework established under the <i>Water Industry Competition Act 2006</i> .	By June 2023	IPART
	• Develop guidelines to better enable competition and transparency for service providers.	By June 2023	IPART
	• Commence consultation on fees and charges.	By June 2023	IPART
	• Finalise amendments to the Water Industry Competition Regulation.	By December 2022	DPE
<b>Action 6.11</b> Foster the circular economy in our cities and towns	• Implement the NSW Waste and Sustainable Materials Strategy.	Ongoing	EPA
	• Commence development of circular economy plans for Sydney Water and Hunter Water.	By July 2023 and ongoing	Sydney Water, Hunter Water



Image courtesy of Destination NSW. Parramatta River, Western Sydney.

## Priority 7. Enable a future-focused, capable and innovative water sector

Action	What we will deliver over the next 2 years	Timing	Responsibility
<b>Action 7.1 Pilot new technologies to increase our water options</b>	• Trial forward/reverse osmosis technology in a local water utility pilot.	By December 2022	DPE
	• Collaborate with Geoscience Australia on groundwater investigations along the Upper Darling Floodplain to identify potential for potable water for communities and industries.	By June 2023	DPE
<b>Action 7.2 Collaborate to harness new research, innovation and technology</b>	• Develop automated remote sensing tools and new methods to support improved data transparency, water monitoring and modelling, and compliance activities.	By September 2024	DPE
	• Engage in strategic research partnerships to develop and enhance scientific tools such as eDNA and develop key species environmental water requirements.	By December 2023	DPE
<b>Action 7.3 Invest in water sector workforce and capability</b>	• Develop and implement agreed sector capability building and regulatory training for local water utilities.	By June 2024	DPE
	• Implement agreed government accredited and unaccredited training for water operators.	By June 2024	DPE
	• Provide opportunities for training, employment and business development through the Water Infrastructure NSW projects and the Aboriginal Metering Traineeships Program.	By June 2023	DPE
	• Implement and monitor the use of councillor awareness resources.	Ongoing	DPE

