Our commitment

Caring for the environment is a core value in everything we do. Our Environment Strategy is aligned with what our customers and stakeholders have told us they want to see us do and shows how we will contribute to the future direction of our cities.

Sydney Water acknowledges the Aboriginal people of the places we now call Sydney, Blue Mountains and Illawarra as the traditional custodians of the land and water on which we rely. Aboriginal people have used water sustainably for thousands of years.

We are committed to maintaining a high standard of environmental care, reducing adverse impacts from our operations to protect the environment and fulfilling our compliance obligations. We will always strive to outperform environmental regulatory requirements where the customer expects us to and we can do so in a commercially responsible way.

Greater Sydney is going through a time of unprecedented growth and change. This means we must think differently about how we operate and deliver services, while continuing to run an efficient business and deliver value for our customers and stakeholders.

With our Environment Strategy, we have set ourselves a goal to provide water services for our city that sustain and enhance the lifestyle of our customers now and in the future, increasing our standing in the community as a trusted environmental steward by 2030. Our 2020 targets help us set actions in our Environment Plan that build on our past achievements and continue to improve our environmental performance through innovative, cost-effective approaches. Our 2030 targets are aspirational and our actions towards these will be further developed through engagement with customers and stakeholders.

Our Environment Strategy will help us meet our Corporate Strategy and contribute to our long term planning to support the vision for Greater Sydney to be a productive, liveable and sustainable city. It will guide us to work collaboratively with our customers and stakeholders to ensure resilient water services as our cities grow.

Kevin Young
Managing Director

We’re a world-class organisation, delivering essential water services our customers love, in our great city. We have developed an Environment Strategy to contribute to building a productive, liveable and sustainable city.
Our environmental journey

Our progress

- Caring for Sydney’s waterways and environment is very important to all of us and is a core part of our history of over 125 years. Water is at the foundation of the identity and shape of Greater Sydney - the Eastern Harbour City, the Central River City, the Western Parkland City - and the Illawarra Region.

- Every day, we proudly protect the health of our community by providing safe, refreshing drinking water. A leader in adapting for climate change, we have prepared for the impacts of variable climate on our water supplies and customer demand. Through our programs, Sydneysiders have maintained drinking water use at 1970s levels, despite an extra two million people since that time.

- We manage wastewater networks that protect the rivers and beaches that are central to our customer’s iconic, outdoor way of life. We’ve invested over $3 billion over the past 25 years in improving our wastewater management, making beaches safe for swimming and improving water quality along the coast, in our harbours and rivers. We’ve worked with stakeholders to create wetlands to treat stormwater runoff and naturalise waterways, improving habitat and the land around for the community to enjoy.

- We continue to look for ways to reduce our environmental footprint by using resources efficiently. We now generate about 15% of our total energy needs through our own renewable energy projects. For over 20 years we have publicly reported on our environmental plans and outcomes.

Our growing cities

- Our rapidly growing city will put pressure on natural resources, infrastructure and liveability of communities. Looking forward to 2030 and beyond, we must manage the urban water cycle and land use in new and better ways if we are to meet population growth and create more liveable communities.

By 2031 across Greater Sydney we can expect:

- 1.3 million extra people
- 570,000 new homes
- 600,000 new jobs
Our environmental sustainability goal and themes

We aspire to provide water services for our city that sustain and enhance the lifestyle of our customers, now and in the future, increasing our standing in the community as a trusted environmental steward by 2030.

We developed our Environment Strategy from a review of the material challenges and opportunities for water, wastewater and stormwater services in our cities now and for years to come. Our approach draws from global frameworks, such as the UN Sustainable Development Goals.

We consulted with our Customer Council, key stakeholders and regulators, together with our business. The feedback has formed the basis for identifying our environmental objectives across four key themes.
Overview of our environment strategy

We aspire to provide water services for our city that sustain and enhance the lifestyle of our customers, now and in the future, increasing our standing in the community as a trusted environmental steward by 2030.

### Goal

**Healthy Waterways & Clean Beaches**

We’ll contribute to healthy waterways and clean beaches in delivering our services to safeguard ecosystems that our communities can continue to enjoy.

### Objectives

**Healthy Waterways & Clean Beaches**

1. Balance the needs for healthy rivers and a growing city by managing water cycle outcomes
2. Collaborate to improve waterway health and amenity and manage access
3. Reduce environmental impacts of our discharges
4. Use leading edge science and research to benefit waterways
5. Maintain reliability of our infrastructure to ensure we meet environmental obligations
6. Incorporate environmental safeguards more effectively to reduce risks and communicate incidents impacting waterways
7. Support a risk-based approach to manage the cumulative impacts of development and improve catchment and waterway health
8. Understand impacts and prioritise improvements considering all discharge sources to waterways
9. Collaborate to integrate water services with city planning

**Create Resilient & Liveable Places**

We’ll increase our resilience to a changing climate, connect with customers and use water in the landscape to shape liveable places.

1. Enhance our resilience to ensure continuity of services in a changing and variable climate
2. Incorporate customers’ environmental needs and values into our decisions and regulatory submissions
3. Build sustainable water and wastewater behaviours through our education programs
4. Play a leading role in urban water infrastructure strategy and reforms
5. Improve local amenity to support safe, healthy and inclusive communities
6. Collaborate and share knowledge to enable the water sensitive cities of the future
7. Collaborate on climate adaptation to create shared solutions for our communities
8. Enhance liveability through the use of water in the landscape to help connect, cool and green our cities

**Care for Nature, Land & Heritage**

We’ll protect and restore valuable biodiversity and share the natural spaces, land and heritage in our care with the community.

1. Conserve natural environments and cultural heritage in our care
2. Reveal and restore natural waterways and landscapes
3. Responsibly manage land contamination and hazardous building materials to prevent risk of harm
4. Support our people to live our environmental values every day
5. Include learnings from Aboriginal knowledge of Country in our programs to improve conservation outcomes and build relationships
6. Share our land and heritage in our care with the community to support liveable places
7. Look to create value from our green infrastructure to maintain ecological health
8. Identify and prepare for emerging contaminants of concern

**Efficient & Sustainable Resource Use**

We’ll use our resources wisely, work with customers to save water and increase our recovery of energy towards net-zero emissions.

1. Work with customers and invest in economically efficient water conservation
2. Drive low carbon, energy efficient and demand responsive water infrastructure and services
3. Benefitfully recover and re-use resources and reduce waste to landfill
4. Work with suppliers and contractors towards a smaller ecological footprint
5. Contribute to future sustainable and resilient water supplies
6. Reduce our carbon emissions to help meet NSW’s aspirational objective of net-zero emissions by 2050
7. Harness research and innovation to increase our use of renewable energy
8. Explore innovative waste management to support the development of a circular economy
1. Healthy waterways and clean beaches

Key insights on what’s emerging in the future

- Beaches and waterways are an important part of greater Sydney’s lifestyle and we have played a significant role in contributing to waterway health over past decades. We manage wastewater and stormwater networks that protect the rivers and beaches that are central to our city’s iconic, outdoor way of life.

- As Sydney grows, our role in servicing new customers offers the opportunity to provide water services in new and better ways. We’ll need to manage the urban water cycle and our land use better if we are to maintain our lifestyle and cope with the pressures of about 1.3 million extra people by 2031.

- We’ll need to invest in infrastructure for the future and apply innovative approaches to manage treated wastewater discharges, overflows and stormwater to sustain the health and recreational amenity of our natural water resources.

- We can leverage our leading scientific research and technological innovation to inform policy and regulatory directions for our cities. The age of our infrastructure, fluctuating climate and emerging contaminants of concern will present challenges in providing reliable services that protect waterways and customers, and we’ll need to be prepared to respond.

- Sustaining the health of our waterways will require a whole of catchment approach and collaboration with councils, planning agencies and other stakeholders.

Taking action - South Creek Corridor Plan

- We’re spending $300 million on our Lower South Creek Treatment Program which will provide new and upgraded wastewater infrastructure for more than half a million people by 2040.

- We’re also collaborating with Infrastructure NSW and other agencies to build full water cycle management into planning for western Sydney, including a new and holistic approach for the Hawkesbury Nepean River and South Creek. This will enhance waterway health and liveability of communities.

- Sydney Water is contributing waterway modelling and science capabilities to develop a new framework for licencing of nutrients. We are investigating the most economically and environmentally effective options to provide water services to manage growth in South Creek.

- We will help create a continuous open space corridor, designed to respond to water in the landscape. This will create a greener and cooler Western Parkland City along south Creek and its tributaries.
# 1. Healthy waterways and clean beaches

**Our objective:** We’ll contribute to healthy waterways and clean beaches in delivering our services to safeguard ecosystems that our communities can continue to enjoy.

## Our priority outcomes are to:

| **1.1** | Balance the needs for healthy rivers and a growing city by managing water cycle outcomes |
| **1.2** | Collaborate to improve waterway health and amenity and manage access |
| **1.3** | Reduce environmental impacts of our discharges |
| **1.4** | Use leading edge science and research to benefit waterways |
| **1.5** | Maintain reliability of our infrastructure to ensure we meet environmental obligations |
| **1.6** | Incorporate environmental safeguards more effectively to reduce risks and communicate incidents impacting waterways |
| **1.7** | Support a risk-based approach to manage the cumulative impacts of development and improve catchment and waterway health |
| **1.8** | Understand impacts and prioritise improvements considering all discharge sources to waterways |
| **1.9** | Collaborate to integrate water services with city planning |

## Our targets - by 2020 we will:

| **1.1** | Contribute to developing a new framework for licencing of nutrients to maintain and protect the health of the Hawkesbury–Nepean River system |
| **1.2** | Establish a new framework to plan, deliver and evaluate water sensitive urban design projects in collaboration with local government and catchment groups |
| **1.3** | See our work contribute to over 90% of coastal and estuarine beaches classified as having 'very good' or 'good' recreational water quality (as measured by Beachwatch) |
| **1.4** | Develop and share our capability in innovative monitoring and modelling to protect aquatic environment and public health outcomes for major Sydney waterways |
| **1.5** | Continue to work towards 100% of wastewater volume treated that is compliant with our environment protection licences (from current performance of over 99%). |
| **1.6** | Improve our prevention and response to dry weather overflows |

## by 2030 we aspire to:

| **1.7** | Work collaboratively to support the swimmability goals for the Parramatta River by 2025 |
| **1.8** | See our work contribute to increased proportion of waterways meeting community expectations and environmental objectives* |
| **1.9** | Enhance integrated water planning by working collaboratively with government agencies and stakeholders |

*Key indicators in Sydney Water’s Sewage Treatment System Impact Monitoring Program
2. Create resilient & liveable places

Key insights on what’s emerging in the future

- As our climate continues to change, we need to better understand what this means for the volatility and uncertainty of local conditions. With the likelihood of more bushfires, storms, heatwave and flood events, we must adapt to ensure continuity of water services to our cities.
- We will need to explore smarter, affordable ways of building resilience into infrastructure and communities. We can support initiatives that respond to climate change impacts – from using water in the landscape to cool and green our cities, to collaborating on sophisticated flood management.
- Local urban liveability underpins Sydney’s lifestyle and international attractiveness. Increasing urban density will create greater demand for public open space, infrastructure and services that meet people’s needs. As urban growth rapidly reshapes the city, we’ll have the opportunity to better integrate water in the landscape to create more liveable places and provide quality open spaces. A water sensitive approach to urban water planning and management is emerging as global best practice.
- We need to know what customers value so we can deliver the services they want at an affordable price. Recent studies show the community value clean and safe water for drinking and swimming and the efficient use of water to avoid waste. We will need to manage the disruption and impacts to communities from providing infrastructure. In the future we can explore customers’ support for additional benefits that enhance their environment and liveability.
- Advances in technology will enable our customers to able to actively monitor and control their use of water and energy. Together we can build a more informed community, sustainable water behaviours and an understanding of people’s shared responsibilities.

Taking action – Greater Parramatta & Olympic Peninsula

- Planning for priority precincts using an Integrated Water Cycle Management approach is underway for Greater Parramatta to Olympic Peninsula (GPOP).
- This project aims to support the creation of a green grid across Central and Western Sydney, provide alternative water sources for irrigation, public amenity and urban cooling, and contribute to improved liveability in new development areas.
- We are establishing a dedicated program to address the commercial and regulatory issues and opportunities in delivering water smart community initiatives.
2. Create resilient & liveable places

Our objective: We’ll increase our resilience to a changing climate, connect with customers and use water in the landscape to shape liveable places.

Our priority outcomes are to:

2.1 Enhance our resilience to ensure continuity of services in a changing and variable climate

2.2 Incorporate customers' environmental needs and values into our decisions and regulatory submissions

2.3 Build sustainable water and wastewater behaviours through our education programs

2.4 Play a leading role in urban water infrastructure strategy and reforms

2.5 Improve local amenity to support safe, healthy and inclusive communities

Our targets – by 2020 we will:

- Assess 100% of our climate risk interdependencies with transport, power and other services
- Engage with our customers to understand what they need and value, including environmental considerations, from across our services
- Measure increased customer satisfaction (positive environmental responses), awareness and behaviour with our customer research
- Work closely with agencies to include an integrated water management cycle approach in the infrastructure strategy for the South Creek corridor
- Deliver programs that manage the odour, noise and visual impacts of our operations

by 2030 we aspire to:

- Be recognised by our stakeholders as working in partnership with them, as measured by our annual corporate stakeholder perception audit
- Be a benchmark leader for climate readiness and service continuity to contribute to our communities being more resilient to a changing climate*
- Develop servicing strategies that support the green grid** priority opportunities and future connections
- Deliver programs that provide multiple benefits from flood planning and management

*Objective identified in NSW Climate Change Policy Framework, 2016, Office of Environment and Heritage

**Green Grid priorities identified in the draft Greater Sydney Region Plan and District Plans, 2017, Greater Sydney Commission
3. Care for nature, land and heritage

Key insights on what’s emerging in the future

- Greater Sydney has a long history of Aboriginal use of land and waterways. We respect the connection and ongoing contribution of Aboriginal peoples to Country.
- Cultural heritage, including natural and built heritage, Aboriginal places, objects and stories provide a sense of place. Active use of our built heritage assets today, such as the Tank Stream, ensures their longevity. We will need to conserve and enhance heritage places in our care to enable them to be experienced by current and future generations.
- The city’s unique natural landscapes provide ‘ecosystem services’ and are increasingly valued as green infrastructure in the planning of urban areas. Sydney Water’s land protects areas of high environmental value including bushland, parks, wetlands and waterway vegetation corridors. These support habitat for wildlife, filter stormwater and provide open space for recreation.
- As a key environmental steward of our city’s history, natural resources and global brand, we have a role to increase awareness, conserve and share land in our care for community benefit.
- Significant urban growth over the next few decades will increase pressures on remaining natural areas. At the same time it presents opportunities to restore and reveal waterways and landscapes valued by the community and connect with other natural corridors and spaces along a Green Grid.
- We will be expected to continue to protect public health and the environment by dealing with legacy land contamination issues and responsibly managing biodiversity and cultural heritage in our care.
- In the long term we will work with others on innovative approaches to enhance the value of our green infrastructure and avoid or offset impacts from our infrastructure.

Taking action – Waterway naturalisation

- We work closely with local councils and other agencies to improve the health of our stormwater system and protect people and properties from flooding. We are managing wetlands and reinstating more natural conditions in waterways to treat stormwater, provide habitat for wildlife and improve aesthetics of the local area.
- Sydney Water is renewing channels in the Eastern Harbour City and Central City that need to be repaired. Based on community feedback, we will be looking to naturalise the waterways by replacing concrete walls with natural-looking banks made of rocks and native plants. This work will help maintain the stormwater system and protect the local environment. At some sites we will also build seats and shared paths for the community to enjoy.
3. Care for nature, land and heritage

Our objective: We’ll protect and restore valuable biodiversity and share the natural spaces, land and heritage in our care with the community.

Our priority outcomes are to:

3.1 Conserve natural environments and cultural heritage in our care

3.2 Reveal and restore natural waterways and landscapes

3.3 Responsibly manage land contamination and hazardous building materials to prevent risk of harm

3.4 Support our people to live our environmental values every day

Our targets - by 2020 we will:

- Consolidate and renew our strategic plans of management for cultural heritage and natural environments (including riparian lands and wetlands)
- Implement programs to reinstate more natural conditions in highly modified waterways
- Achieve net gain in area of native vegetation restored year on year
- Have clear outcomes and milestones for site clean-up or management established for all declared contaminated sites on our land
- Have over 90% of staff complete environmental awareness training and communicate how we care for the environment

by 2030 we aspire to:

- Enhance our strategic engagement with recognised knowledge holders to inform our planning and community projects
- Increase the availability of our land for agreed community use or public open space year on year
- Identify and where feasible, create biobanking, offset or other opportunities to fund green infrastructure
- Collaborate on shared responses, as needed, to risks to land and waterways from microplastics and emerging chemicals of concern

*Green Infrastructure principles identified in the draft Greener Places, 2017, Office of the Government Architect NSW
4. Efficient & sustainable resource use

Key insights on what’s emerging in the future

- A secure and sustainable supply of water is essential for our cities to grow and prosper. Greater Sydney’s water supply system is resilient and sufficient to meet demands in the medium term. Into the future, we will need to build on our highly successful water conservation programs and customers’ efforts to develop innovative solutions that address, in a holistic way, the water needs of our new and expanding communities.

- The water industry is energy-intensive and we use large amounts of electricity in our treatment operations and pipe networks. We’ve worked for many years to reduce our energy use, generate renewable energy and prepare for a low-energy future.

- The global transition to renewable energy will inform our future energy efficiency, new energy technologies, generation and reuse of our own renewable energy. We are well placed to contribute to NSW’s aspiration to reduce carbon emissions to net zero by 2050.

- In our growing city, place-based water, waste management and resource recovery will increasingly contribute as we transition to a more circular economy. Resource recovery goes one step further than re-use and considers what resources we have available, how we use them and where we can achieve value.

- We will need to plan for the future by understanding lifecycle costs when we invest in new assets and pursue innovative technologies for resource recovery and renewable energy options at our wastewater treatment plants. Our supply chain and infrastructure delivery partnerships are critical to successfully reduce our full lifecycle costs and environmental impacts.

Taking action – Renewable energy from waste

- In 2016–17, we generated the equivalent of 16% of our total on-site electricity needs from our eight cogeneration plants, three hydroelectric plants and solar photovoltaic systems. In 2011, we started investigating co-digestion of sludge with organic waste to increase biogas production.

- We introduced co-digestion at our Cronulla Wastewater Treatment Plant in June 2016 to increase our renewable energy generation. We have opened a co-digestion research facility at our Shellharbour Wastewater Treatment Plant to research the co-digestion of various food waste streams with sewage sludge.

- Results of this project could provide future waste disposal opportunities for other organisations and waste types, delivering better environmental outcomes.
4. Efficient & sustainable resource use

Our objective: We’ll use our resources wisely, work with customers to save water and increase our recovery of energy towards net-zero emissions.

Our priority outcomes are to:

4.1 Work with customers and invest in economically efficient water conservation
4.2 Drive low-carbon, energy efficient and demand responsive water infrastructure and services
4.3 Beneficially recover and re-use resources and reduce waste to landfill
4.4 Work with suppliers and contractors towards a smaller ecological footprint

Our targets - by 2020 we will:

- Develop and implement a Water Conservation Program
- Maintain our grid-sourced electricity demand below 1998 levels
- Identify alternative uses for biosolids recovered from wastewater treatment to maintain 100% beneficial use of biosolids
- Improve our overall solid waste recycling rate by responsible re-use of our recoverable resources
- Obtain sustainability benchmark ratings for all major infrastructure projects
- Reduce our ecological footprint per customer year on year

by 2030 we aspire to:

- Develop innovative servicing solutions that make the best use of water for priority growth areas, considering recycled water, stormwater and decentralised approaches
- Provide 75% of our electricity demand from net-zero carbon emissions sources, and 100% by 2050
- Achieve 35% of our electricity demand from self-generated renewable electricity
- Support precinct-based initiatives to increase renewable energy, and energy and water efficiency
- Increase our recovery of energy using externally-sourced organic wastes
- Move towards energy self-sufficiency at our major wastewater treatment plants

*Objective identified in NSW Climate Change Policy Framework, 2016, Office of Environment and Heritage
Responding to customer needs

We know our customers want us to:

- keep the environment a top priority in how we deliver products and services
- play our role in tackling the big issues for a better tomorrow
- work with them to save water and protect the environment.

Our Environment Strategy defines what we want to achieve now and in the future and how we will do this to:

- deliver and shape environmental decisions that meet our customers’ needs where we can do so in a commercially responsible way
- empower our people with the information they need to incorporate environmental objectives into the planning and operations of our services
- guide the actions developed for our Environment Plan
- meet our Operating Licence obligations and legislated Principal and Special Objectives
- think differently in delivering liveable solutions that have benefits valued by our customers
- provide a framework for environmental initiatives we may work on collaboratively with our stakeholders and regulators
- demonstrate our strategic environmental outcomes to our customers and community
- help meet our commitment to support and promote the United Nations Sustainable Development Goals, and achieve Goal 6: ensure availability and sustainable management of water and sanitation for all.

Our customers will benefit as we:

- continue to protect and enhance the environment and reduce risks
- provide our services in a way that cares for waterways and beaches as well as the land we manage
- efficiently use and recover resources such as energy and water
- ensure resilient water services as our cities grow
- continue to be part of the community and proud to work with customers to build liveable communities.
Our role in contributing to urban water solutions

Lead, collaborate and innovate

- We are a statutory State Owned Corporation, wholly owned by the NSW Government. Our performance targets and service standards are set out in our Operating Licence 2015–2020, and the Sydney Water Act 1994 assigns our principle objectives. These are to:
  - protect public health
  - protect the environment
  - be a successful business.
- Within this framework we have a range of roles depending on our sphere of influence: control, influence and concern.
- We share ownership and management of waterways with private land owners, local councils, and other state government agencies. We are seeking to improve our cities’ urban water governance by advocating for clear co-ordinated leadership for waterways and catchments.
- Our Environment Strategy will help us guide our business when fulfilling its objective to protect the environment.

Our spheres of influence

- **Control** We provide world class water, wastewater infrastructure and services to almost five million customers. We also look after some recycled water and stormwater services.
- **Influence** Where we have partial or shared responsibility, we are a leader in partnering with the private sector, educating customers, and collaborating with other stakeholders.
- **Concern** We seek to understand a wide range of issues that are important to our customers to fulfil their expectations and prepare for future challenges.
Implementing our environment strategy

Environmental Management System (EMS)
We will implement this strategy under the framework of our ISO14001 certified EMS. The core of an EMS is the continual cycle of planning, implementing, evaluating and improving processes to enhance environmental performance.

Environmental Policy
Our Environmental Policy provides our commitment to continual improvement and the principles of ecologically sustainable development.

Environment Plan
Our Environment Plan provides the annual roadmap for our strategy. We will map out our planned actions annually to work towards the environmental objectives and outcomes of our strategy. We will implement actions that are deliverable, cost-effective and aligned with business priorities. Each year, we will track the progress we make towards our environmental objectives to help us understand where to focus our efforts.

Review and improve
We will review our Environment Strategy and Plan annually as part of our corporate planning framework to ensure we continually improve environmental performance and align with our long term strategies for water, wastewater and stormwater.
Measuring and reporting our progress

Environment indicators and reporting

Each year, we will report publicly on the progress we make towards our environmental objectives.

To provide a year-to-year comparison of performance, we report publicly against a set of key environmental performance indicators selected by the Independent Pricing and Regulatory Tribunal (IPART) and benchmarked through the National Water Initiative (NWI), in our Environment Compliance and Performance Report.

New measures and benchmarks

For some targets we will need to develop new indicators to measure our progress.

We will also explore more quantitative measures and targets that better drive our environmental performance and improve our readiness for the future.

We will continue to seek feedback from our customers and stakeholders as well as learn from the latest research.
Contact us

We all want a resilient, sustainable future for Sydney, the Blue Mountains and Illawarra. This is our starting point. We will keep engaging, listening and learning so we can build on our strategy and continually improve our environmental performance. Together we can enhance the environmental sustainability of our cities and readiness for future challenges.