



# Strategic Plan 2023–26

Science and Insights Division

Department of Climate Change,  
Energy, the Environment and Water



## Acknowledgement of Country

The Department of Climate Change, Energy, the Environment and Water acknowledges the Traditional Custodians of the lands where we work and live. We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

We pay our respects to Elders past, present and emerging.

This resource may contain images, or names of deceased persons in photographs or historical content.



# We are an integrated environmental science function for government

The Science and Insights (S&I) division of the Department of Climate Change, Energy, the Environment and Water provides integrated and practical environmental science for government.

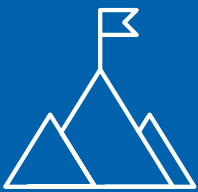
We conduct research and ongoing monitoring to provide evidence, expertise and thought leadership to inform decisions and shape policy development and delivery – now and for our future.

S&I supports the NSW Government in creating a thriving, sustainable and resilient environment, community and economy to benefit the people of NSW. Our work contributes to the delivery of state government priorities across the natural and built environment in partnership with communities.



## Our Vision

Thriving environments and communities, for every generation



## Our Mission

We provide science, solutions and thought leadership to protect, rehabilitate and restore the nature and resilience of NSW



### Research

**We work with key stakeholders to identify and understand priority problems.**

- We gather data to create the information and knowledge required to inform decision making.
- We work proactively with leading research partners to deliver robust and up-to-date research.



### Evidence

**We collaborate with end users to develop scientifically rigorous products that inform decision making.**

- We provide data and insights to support informed decision making.
- We provide the evidence base to guide policy and legislative action.



### Expertise

**We help government make challenging decisions and take action.**

- We deliver rigorous knowledge and advice to meet government and stakeholder needs.
- We bring expertise and advice to solve environmental problems.



### Thought leadership

**We provide thought leadership to shape and guide policy development and delivery.**

- We develop multiple lines of evidence and innovative approaches to evidence gathering.
- We collaborate across government to shape and influence environmental policy, strategy and programs.

# NSW is facing significant environmental challenges

We are working to address the biggest environmental challenges facing NSW today and in the future. NSW natural capital assets are under increasing pressure from climate change, a growing population, and changing community expectations.





1

## Increasing impact of natural hazards

NSW is experiencing greater environmental shocks, with natural hazards and extreme events becoming more frequent and more severe. Compounding natural hazards are also increasing. The cycle of heatwaves, droughts, bushfires, coastal storms and floods being experienced is unprecedented. Climate change is exacerbating the frequency and severity of these extreme events.

Adaptation to these events is critical to minimise harm, maximise opportunity and help secure the state's ongoing resilience and prosperity.

2

## Declining nature in NSW

NSW biodiversity is in decline. The loss of essential ecosystem services is irreversible and in some areas is approaching a tipping point, where ecosystems could transition to a permanently altered state. The security of NSW water resources, quality of air and richness of soil and forest are also deteriorating, which has implications for our future wellbeing and livelihoods.

Reversing environmental decline and better conserving and restoring biodiversity are urgent priorities to protect natural capital and support economic growth.

3

## Increasing complexity of environmental issues

Environmental policy development and delivery are becoming increasingly complex due to the uncertainty in changing climate patterns, the growing range and intricacy of environmental issues, and evolving stakeholder and community perspectives.

There is an expanding volume of activity and a widening range of participants responding to pressing environmental issues. Perspectives are not always grounded in the latest evidence and debate is increasingly heated.

# We will drive progress on 3 strategic priorities

1

## Support adaptation to natural hazards and climate change

Success will look like:

Environmental, climate and natural hazard forecasting data is available, usable and incorporated into stakeholders' approaches, plans and activities

Our priority focus is to:

- **anticipate climate change and natural hazards through scientific forecasting** – Predict changing climate patterns and the potential impact of shocks through integration of environmental modelling, monitoring and forecasting.
- **enhance environmental risk prevention and disaster preparedness** – Generate data and evidence that inform the development of risk-based approaches to environmental management, disaster preparedness, and climate change adaptation. Deliver the climate change opportunity and risk assessment framework and establish a trusted metric for climate change risk.
- **inform response to shocks and recovery** – Ensure real-time evidence collation for a rapid and effective response to climate change impacts and natural disasters to inform emergency response and the effective prioritisation of recovery operations.

2

## Drive the repair and restoration of NSW's nature

Success will look like:

Agreed measures for nature and plans that will improve our natural assets and improve performance against these measures over time

Our priority focus is to:

- **deliver the science and data for the natural capital framework**
  - Establish a single measure of natural capital, supported by ongoing reporting of natural capital and coordinated planning to restore nature in NSW.
- **accelerate pathways to protect and restore nature**
  - Deliver environmental science, data and insights for landscape restoration, biodiversity conservation programs, environmental protection programs and natural capital accounting. Support key stakeholders in nature related programs.
- **design decision-making systems to support protection and restoration of nature** – Such as 'near me' apps and other products and dashboards to support landscape restoration and biodiversity conservation

3

## Provide environmental foresight

Success will look like:

NSW Government environmental, planning and development policies reflect scientific insights and advice

Our priority focus is to:

- **inform agenda setting for the NSW environment portfolio** – Take a lead in informing and engaging stakeholders, including around climate change adaptation, natural capital and development of an environmental dashboard.
- **convene stakeholders to inform and drive policy** – Bring together stakeholders and lead a systematic approach to developing and delivering policy, including for nature assets, biodiversity, climate change adaptation and environmental protection, restoration and rehabilitation.
- **support environmental policy delivery** – Provide appropriate, effective and sustainable policy delivery, including to support climate change adaptation and improved natural capital accounting.







# Our scientific approach delivers work that is credible, accessible and impactful

Our approach delivers integrated and practical science solutions, guided by our scientific principles and our knowledge pillars. We deliver and are enabled by our people, partnerships and infrastructure.

## Scientific principles

We achieve trust, credibility and scientific excellence for the NSW Government environment portfolio by applying our scientific principles:

- **Scientific integrity and commitment to best practice** – Our work is rigorous, transparent and available
- **Collaboration and partnership** – Our knowledge is enhanced through collaboration and partnerships
- **Integrated and diverse** – Our work combines diverse perspectives and disciplines
- **Innovation** – We use cutting-edge science and technology
- **Capability** – We continue to provide and enhance our capabilities and infrastructure
- **Communicated** – Our work reaches and is understood by our stakeholders
- **Customer oriented** – Our work is relevant to the needs of our stakeholders

## Knowledge pillars

We provide knowledge that is integrated, accessible and shared, and we provide solutions that are relevant to and connect with the end user by applying our knowledge pillars:

- **Building our analytics** – Shifting from foundational knowledge to analytics and from responding to forecasting
- **Integrating Aboriginal knowledge** – Deepening and maturing Aboriginal engagement and understanding of traditional ecological knowledge
- **Making the most of data assets and knowledge infrastructure** – Developing systems of interfacing products and innovations from our extensive knowledge assets (such as apps and dashboards)
- **Creating knowledge pathways for impact** – Applied research and collective knowledge translation for policy and practice
- **Sharing learning for improvement** – Capacity building to enhance processes and practices for project and case management, stakeholder management and partnerships

## We are experts in our 5 capability areas

We provide leading expertise in 5 key capability areas that support our strategic plan and the wider work within the NSW environment portfolio. Our staff draw on contemporary approaches, facilities, equipment and data assets to create integrated science solutions.

We are a statewide service with offices, laboratories and staff undertaking field-based work throughout NSW.





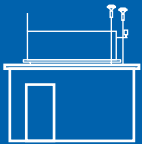
## Biodiversity and landscapes

Using science, data and technology, alongside connection with communities and Aboriginal culture, to protect, conserve and enhance biodiversity, ecosystems and landscapes



## Emissions and climate change

Science and modelling to help reduce emissions and assist government, businesses and the community to adapt to the impacts of climate change



## Environmental health

Science, evidence and knowledge to protect and enable better human and environmental health in NSW and support our partners in upholding environmental regulation



## Water, wetlands and coasts

Science to protect and enhance all NSW freshwater, estuarine, coastal and marine environments to benefit biodiversity, local communities and economies



## Insights and Impact

Leadership and expertise to further develop near real-time dynamic data and insights to underpin and assess NSW's nature and climate policies and programs



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Cover photo: Border Ranges National Park, Gondwana Rainforests of Australia (John Spencer/DCCEEW), Page 2-3: Cultural burn (Paul Hillier/DCCEEW), Page 4-5: Sunset view over Bunnor Waterhole from Bunnor bird hide, Gwydir Wetlands State Conservation Area (James Faris/DCCEEW), Page 6: Air Water Labs (DCCEEW), Page 8: Staff conducting survey in the Macquarie Marshes (John Spencer/DCCEEW), Back cover: Fire regrowth, Kosciuszko National Park (John Spencer/DCCEEW).

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