

Biodiversity Strategy 2026–2036

Conserving our biodiversity to achieve a
protected and connected environment



SUTHERLAND SHIRE





Acknowledgement of Country

Sutherland Shire Council acknowledges the Dharawal people as the Traditional Custodians of the land within Sutherland Shire.

We value and celebrate Dharawal culture and language and acknowledge the Dharawal people's continuing connection to the land, the sea, and the community.

We pay respect to the Elders and their families, past, present, and emerging, and through them, to all Aboriginal and/or Torres Strait Islander peoples.

Young dancers at the 2025 Sunset Cultural
Ceremony, Burnum Burnum Sanctuary

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Front page image: Protecting
tomorrow's biodiversity today

Indigenous recognition

Council is committed to supporting Aboriginal self-determination by collaborating with Aboriginal people to design and care for landscapes and urban environments guided by cultural knowledge and connection to Country.

We acknowledge the Dharawal people as the Traditional Custodians of the Shire's lands and waters. Their unbroken connection to Country – land, water, plants, animals and skies – provides knowledge that remains essential as we navigate climate change and ongoing urban growth.

We are committed to supporting Aboriginal self-determination by working alongside Aboriginal people to protect Country and embed cultural values in how we plan, restore and manage our local environments. This includes:

- caring for and regenerating natural areas
- respecting the cultural significance of local biodiversity
- choosing local native plants for restoration and habitat projects.

By listening to Aboriginal voices and incorporating cultural knowledge, we aim to create healthy, resilient places where culture, community and nature can thrive together.



Female dancers at the 2024 Sunset Cultural Ceremony, Burnum Burnum Sanctuary

Sutherland Shire

A beautiful, protected and healthy natural environment that supports wellbeing, cools our neighbourhoods and sustains a thriving future for people and nature.

Sutherland Shire, located 26 km south of the Sydney CBD and spanning 369 km², is home to 238,614 people and features iconic beaches and ecologically significant landscapes, including the Georges, Woronora and Port Hacking waterways and several major national parks (Figure 1).

This is also where Aboriginal and European cultures first intersected. For more than 65,000

years, Aboriginal people have maintained a deep connection to Country, caring for land, waterways and skies through cultural knowledge and custodianship, an ongoing relationship that informs how we care for Country today.

Sutherland Shire has a long history of biodiversity leadership. Royal National Park, established in 1879, set a global benchmark for conservation. Council’s first Biodiversity Strategy (2000–2015) continued this legacy, supported by ongoing programs such as Bushcare, Greenweb, native plant vouchers, Community Nursery, and urban tree planting, all helping to protect and enhance local biodiversity.

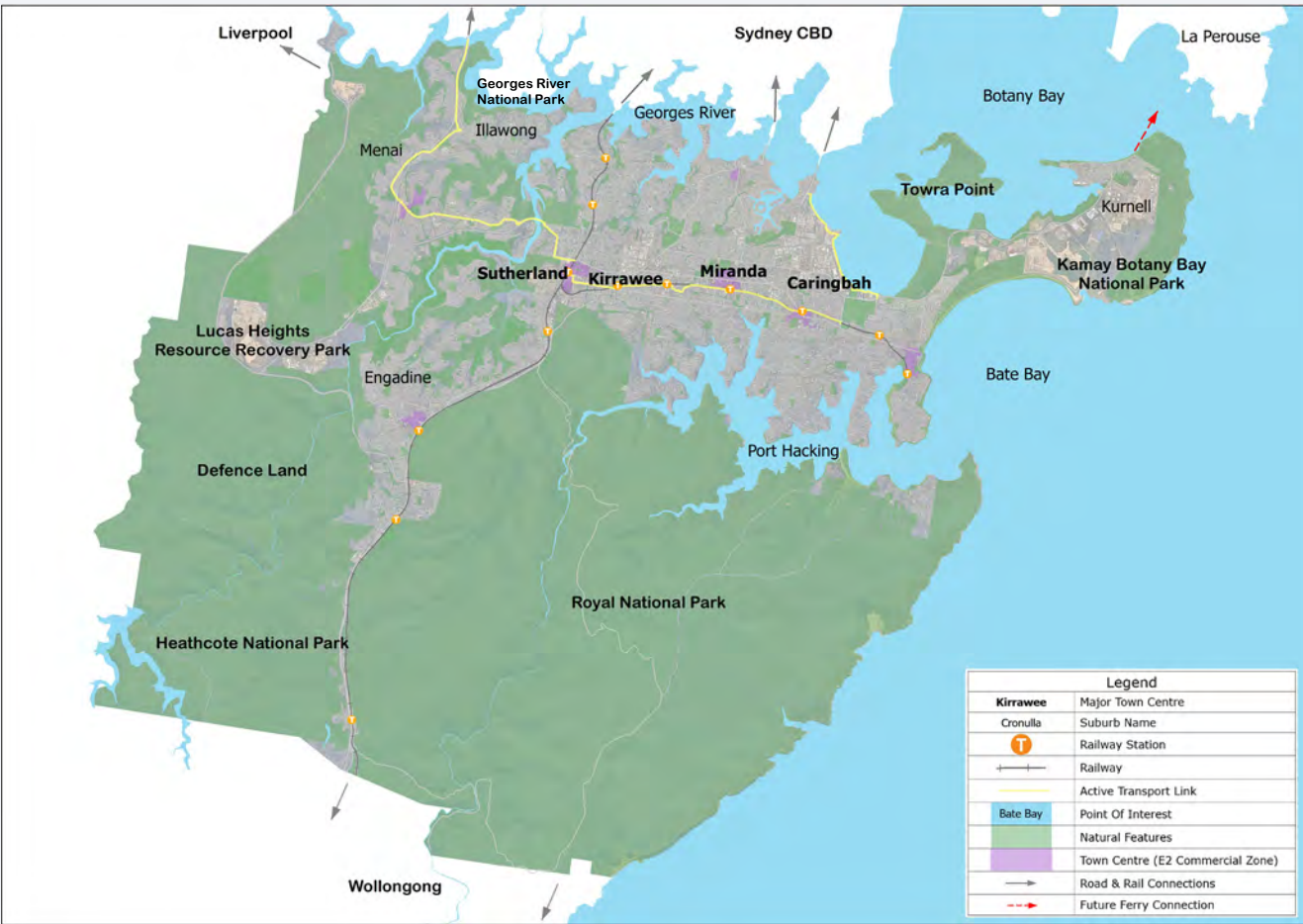


Figure 1. Sutherland Shire’s natural and urban features.

Introduction

Sutherland Shire contains some of the greatest biodiversity in the Sydney Basin, with diverse plant and animal species and ecological communities that hold importance locally, statewide, nationally and internationally.

Biodiversity is deeply interconnected with the way our community lives. Our bushland, waterways, coastline, parks, backyards and treelined streets influence how we experience place, connect us with Country, provide cooling and flood protection, filter pollution, support clean air and water, and contribute to our physical and mental wellbeing. Healthy ecosystems underpin Sutherland Shire's resilience and liveability.

Biodiversity is under increasing pressure. Urban growth, climate change, habitat loss and fragmentation, pollution and ecosystem degradation are making it more difficult for natural

and urban systems to stay healthy, regenerative and resilient. Scientific evidence and community feedback confirm that without stronger, more coordinated action, these pressures will intensify, reducing the diversity of our wildlife, the health of our waterways and bushland, and the essential services ecosystems provide.

This Biodiversity Strategy sets out a clear framework to implement the natural environment priorities of the Sutherland Shire Community Plan Towards 2035, directing efforts to protect biodiversity, improve ecological connectivity and integrate biodiversity conservation thinking into Council decision-making.

The Strategy responds to regional biodiversity challenges and outlines collaborative actions for Council and the community. Using the Protect, Connect and Celebrate framework (Figure 2), it sets out shared directions to restore biodiversity, strengthen ecosystems and ensure people, plants, animals and waterways thrive in healthy, resilient and connected landscapes for generations to come.

What is biodiversity?

Biodiversity refers to the variety of all life on Earth – the plants, animals, insects, fungi and microorganisms, the genetic variation within species, and the terrestrial, marine and freshwater ecosystems they form.¹ Biodiversity exists at many levels, from genetic variation to species, ecosystems and entire regions. It is dynamic and constantly evolving, enriched by natural processes and genetic diversity, yet threatened by habitat loss, species decline and extinction.

Fungi form a crucial part of biodiversity, supporting healthy soils, plants, and ecosystems



Vision: A connected and resilient urban landscape where native flora and fauna thrive, and Country is protected for future generations.

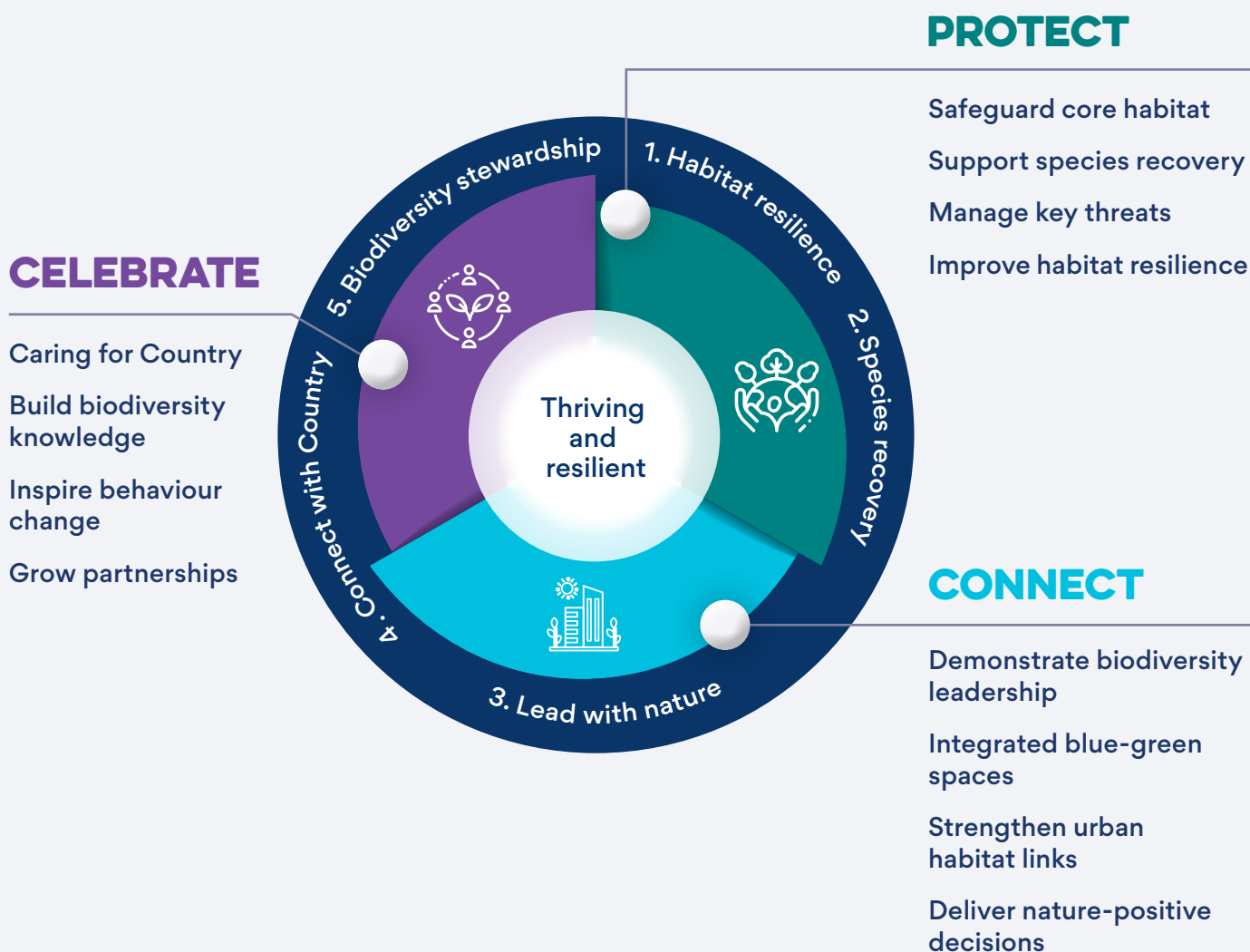


Figure 2. Delivering the Biodiversity Strategy: achieving biodiversity conservation through the interconnected Protect, Connect, Celebrate key areas and their priorities.

A photograph of several vibrant red Waratah flowers (Telopea speciosissima) in bloom, surrounded by green foliage and ferns. The image is partially framed by a light blue curved border at the top.

Waratah (*Telopea speciosissima*) Heathcote

OUR STRATEGY

Strategic context
Our framework
Vision
Strategic drivers
Collective responsibilities

Strategic context

Our ambition is clear: protect what remains, restore what has been degraded and set biodiversity on a path to recovery for the benefit of current and future generations. Now is the time to act.

The UN Decade of Ecosystem Restoration 2021–2030 is a rallying call for the protection and revival of ecosystems on every continent and in every ocean.² National and state legislation, frameworks and policy settings have translated

this ambition into practical responsibilities for local government.

A legislative hierarchy mandates that Council takes action to protect biodiversity, consider the long-term impacts of decisions on future generations and take proactive, landscape-scale actions toward biodiversity conservation and nature-positive outcomes.³

This strategy aligns with various local, regional, state, national and international strategies, laws, frameworks and treaties (Table 1).

This strategy aligns with the following:



Local	Regional*	State	National	Global
Community Plan – Towards 2035	Greater Sydney Regional Strategic Pest Animal and Weed Management Plans	<i>Biodiversity Conservation Act 2016</i>	<i>Biosecurity Act 2015</i>	International wetland and migratory bird agreements
Invasive Species and Wildlife Protection Area Policy	Resilient Sydney Strategy 2025–2030	<i>Biodiversity in Place Framework NSW 2024</i>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Kunming–Montreal Global Biodiversity Framework
Local Strategic Planning Statement and other long-term strategies	The Sydney Plan	<i>Environmental Planning and Assessment Act 1979</i>	<i>Nature Repair Market Act 2023</i>	United Nations (UN) Sustainable Development Goals
		<i>Local Government Act 1993</i>	Threatened Species Action Plan 2022–2032	UN Office for Disaster Risk Reduction: Sendai Framework for Disaster Risk Reduction 2015–2030
		State Environmental Planning Policy (Biodiversity and Conservation) 2021	Australia’s Strategy for Nature 2024–2030	

Table 1. Documents underpinning the Biodiversity Strategy.

*Sutherland Shire sits within two regions: the dotted boundary of the Dharawal peoples and the blue of the Sydney Plan. This map is a visual representation to demonstrate that implementation of this Strategy takes into consideration both regional boundaries.

Our framework

Council's plans and strategies aim to create a connected and safe community in Sutherland Shire, respecting both people and nature. This approach supports active lifestyles and a strong local economy.

Council follows the Integrated Planning and Reporting (IP&R) framework, mandatory for all New South Wales local councils (Figure 3). This framework links the long-term Sutherland Shire Community Plan Towards 2035 – an aspirational vision for the whole Sutherland Shire – with other Council strategies and plans, including short-term plans like the Delivery Program and Operational Plan.⁴

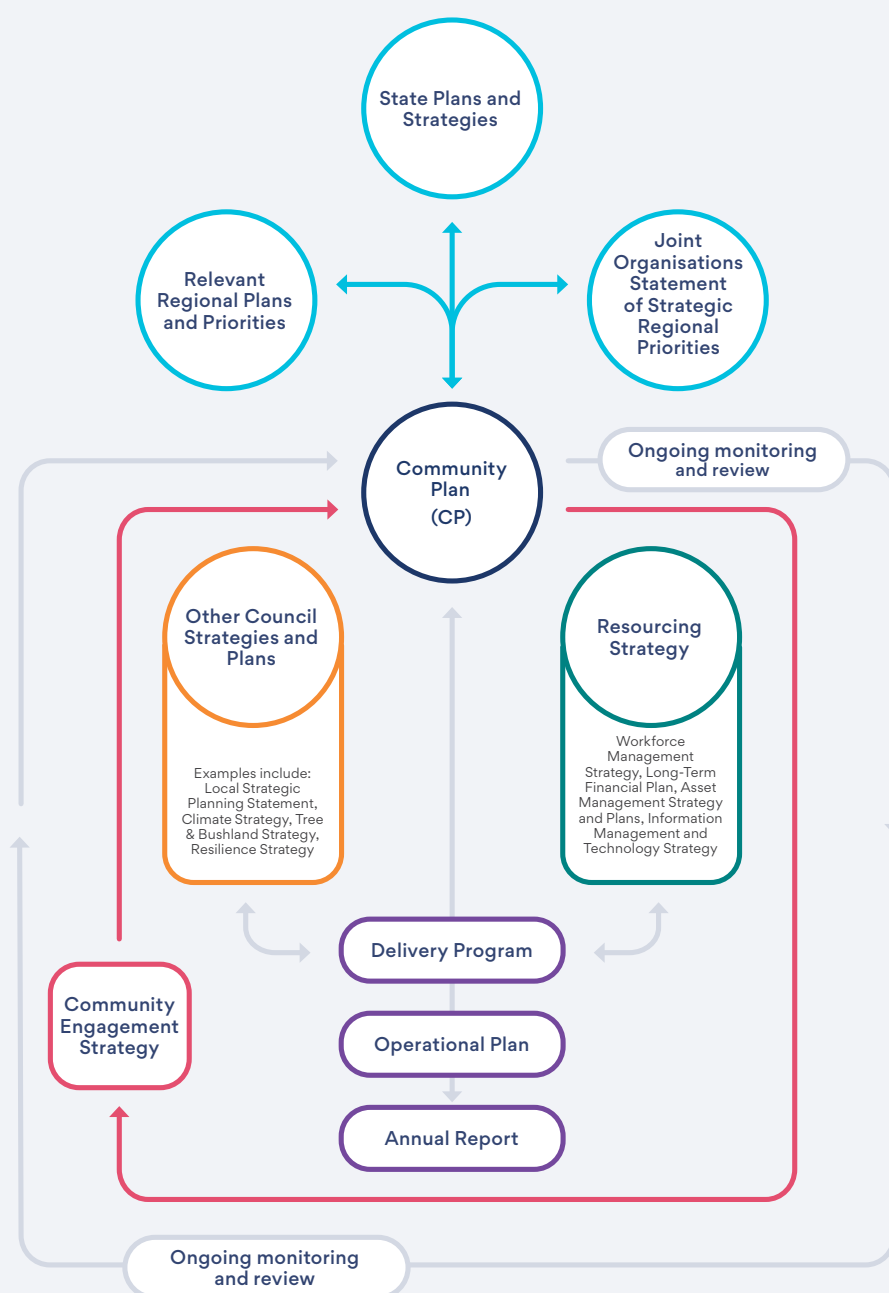


Figure 3. Council's Integrated Planning and Reporting Framework.

Council's IP&R framework is based on the principles of the 'quadruple bottom line', which considers social, environmental and economic objectives, underpinned by robust civic leadership. The Biodiversity Strategy has been developed in response to the biodiversity action commitments within our IP&R framework and aligns to all five Community Strategy themes (Figure 4).

This Strategy is part of a suite of Council documents delivering urban biodiversity conservation (Figure 5). This Strategy is supported by short-term implementation plans (4-yearly) which will provide more specific detail on what will be done to achieve the strategy's targets, aspirations and commitments.



Figure 4. The Biodiversity Strategy's alignment to the 5 Community Plan themes (left), community priorities (middle) and strategies (right). Summarised from the Community Plan Towards 2035.

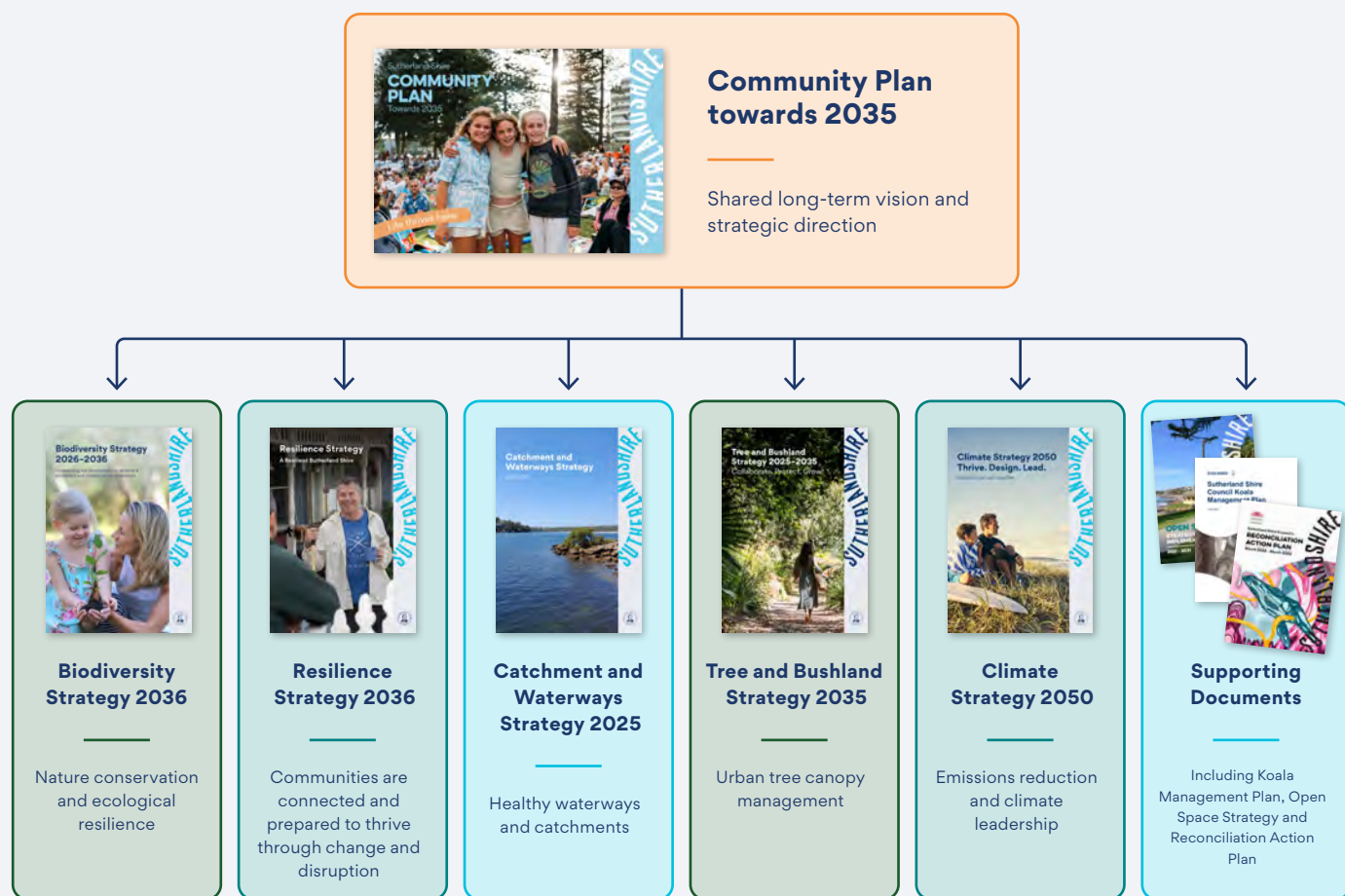


Figure 5. Suite of Council documents supporting biodiversity conservation to support a healthier, more connected and biodiverse Sutherland Shire.

Vision

Our Community Plan’s vision is “a connected and safe community that respects people and nature, enjoying active lives in a strong local economy.”

With community input, Council developed the Sutherland Shire Community Plan Towards 2035 and the above vision, with a clear focus on the environment. Through the themes Natural and Sustainable, and Planned and Liveable, we are committed to working with the community to protect the natural environment, strengthen ecosystem connectivity and enhance resilience.

Sutherland Shire’s Biodiversity Strategy vision is:

A connected and resilient urban landscape where native flora and fauna thrive, and Country is protected for future generations.

The strategy’s biodiversity commitments and framework align with the principles of the International Union for Conservation of Nature (IUCN) conservation hierarchy, the *Biodiversity Conservation Act* 2016, and the Kunming-Montreal Global Biodiversity Framework, providing a clear pathway to protect, restore and recover biodiversity across the urban areas of Sutherland Shire (Figure 6).⁵

This Strategy, including the commitments, aspirations and key focus areas, was developed with input and feedback from stakeholders, including:

- Council Reference and Advisory Groups
- community surveys and workshops
- Youth Week Climate and Biodiversity Forums
- environmental and community organisations.

The engagements helped identify local biodiversity values, challenges and opportunities, and strengthened the Strategy’s focus on stewardship, cultural values and equity.

This Strategy will guide our planning, actions and investment to protect biodiversity and help people and nature thrive. Its success depends on shared responsibility, where we partner closely with community and stakeholders to build a more resilient and sustainable Sutherland Shire.



Nature flourishing, *Kunzea capitata* and *Dianella caerulea* flowers

BIODIVERSITY CONSERVATION

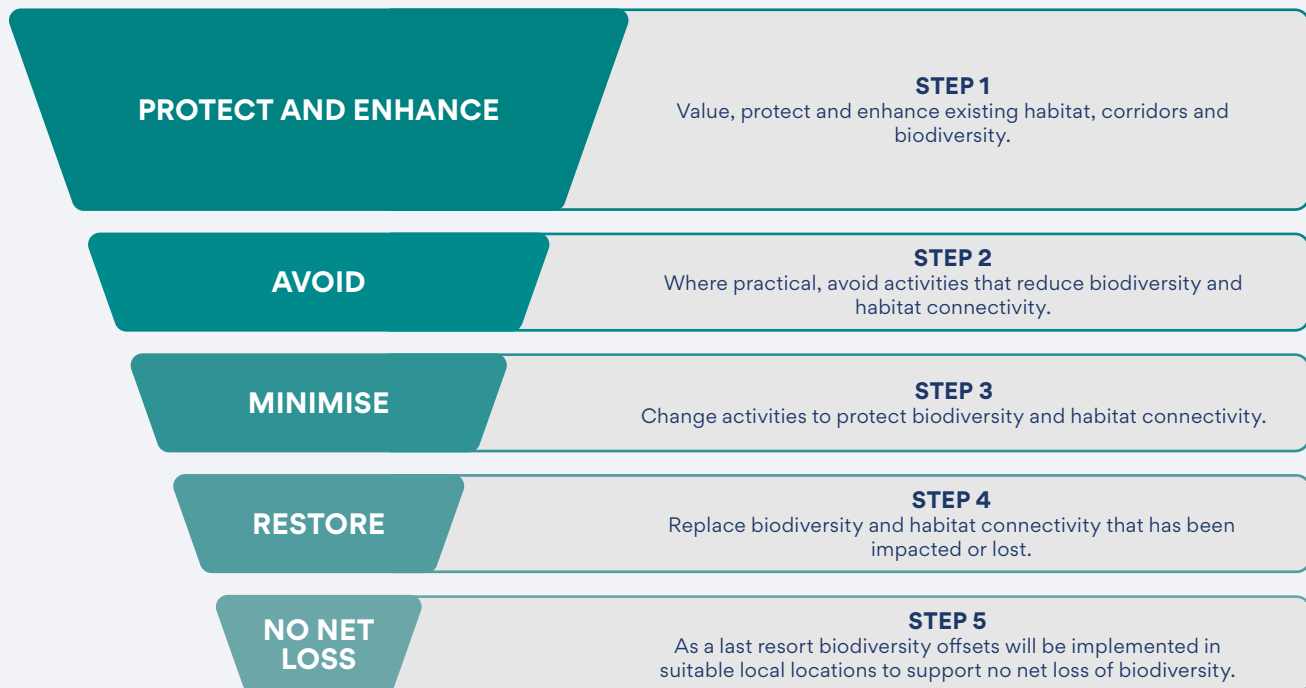


Figure 6. Council will lead by example in implementing the biodiversity conservation hierarchy, prioritising the protection and enhancement of biodiversity on Council-managed land and encouraging private landholders to follow the same approach (implement from top to bottom).

Protecting bushland and waterways

Intact bushland and waterways are among the most ecologically valuable parts of Sutherland Shire. They support key native species, sustain essential natural processes and offer meaningful opportunities for people to connect with nature. Protecting and maintaining these areas is vital for both community wellbeing and long-term ecosystem health.

The Woronora River nurtures native species, maintains natural systems and offers valued nature experiences



Strategic drivers

Using our strategic drivers to guide decision-making, Council, stakeholders and the community will work together to achieve the biodiversity vision.

This Biodiversity Strategy responds to the major challenges and opportunities in biodiversity conservation by applying the following strategic drivers:

Knowledge of Country

For thousands of years, Sutherland Shire has been an important meeting place for Aboriginal peoples, and is deeply rooted in the Dharawal language group, with the Gweagal people being one of the most prominent clans in the area. Dharawal rock paintings, engravings, stencils, grinding grooves, shell middens and rock shelters are present throughout Sutherland Shire. Knowledge of Country recognises the interconnectedness of all, including past, present and future generations.

Collaborative action

Collaborative, urgent action across all sectors – particularly with the Australian and NSW governments – is essential to protect and restore biodiversity, strengthen habitat connections, and address the severity of species loss while meeting global commitments. Such action must consider long-term and cumulative impacts to ensure today's decisions do not compromise the future.

Social justice

The social justice principles of equity, access, participation and rights are fundamental and underpin the development of this strategy. Council strives to ensure that our community, environment and local government area are prepared and have the capacity to positively protect and restore biodiversity and habitat connections across our urban environments. Our goal is for everybody to enjoy the benefits of biodiversity and living in Sutherland Shire.

Future-ready

To be future-ready, we need urgent action now. The precautionary principle and consideration for principles of ecologically sustainable development need to be considered in our decision-making. We will do this by championing sustainable resource use, intergenerational and intragenerational equity, and conservation of biological diversity and ecological integrity to ensure that the future is not compromised.⁶



Sydney Flannel Flower (*Actinotus helianthi*), Prince Edward Park

Collective responsibilities

Protecting and restoring biodiversity, including strengthening habitat connectivity, is a shared responsibility across all levels of government, Council, businesses, community groups and residents.

Business

Businesses influence environmental outcomes through land use, development, landscaping, water management and daily operations. Many already support biodiversity, while others need guidance and clear planning direction to integrate protection and restoration into their practices.

Community organisations

Community groups across Sutherland Shire care for bushland, waterways and coastal areas, contributing local knowledge, volunteer effort and innovation. Council will support coordination, partnerships and knowledge-sharing to strengthen their impact.

Residents

Residents influence biodiversity through everyday choices, property management and how they use natural areas. Although many community members are actively engaged with nature, some face barriers to participation, including limited access to information, opportunities and activities. We will support residents through biodiversity education and accessible nature-discovery programs.

Georges Riverkeeper

Sutherland Shire Council is a member of Georges Riverkeeper, established in 1979, working alongside six other councils to collaboratively care for the Georges River and its catchments. Through five key programs, Georges Riverkeeper delivers best-practice waterway management, restores vital habitats and improves waterway health, helping communities enjoy a cleaner, healthier and more liveable river catchment.

Georges Riverkeeper waterbug sampling at Woronora River
Photo credit: Georges Riverkeeper



Council

We play a critical role in reducing barriers, shaping community attitudes and supporting the behaviour change needed to protect and regenerate biodiversity. We will maximise our impact and drive meaningful change in these ways:

- **Planning and design:** embedding this strategy into future development to protect, enhance and connect biodiversity, while delivering co-benefits such as cooler neighbourhoods, healthier ecosystems and more resilient landscapes
- **Land management:** managing parks, bushland, waterways and public spaces to protect habitat, control threats such as weeds and pests, and improve habitat connections across the landscape
- **Connection to Country:** working with Aboriginal and Torres Strait Islander peoples to support cultural continuity, and to meaningfully incorporate cultural knowledge in planning, design and land management
- **Education and stewardship:** supporting residents, schools, businesses and community groups to understand and care for local biodiversity through education programs, partnerships and volunteer opportunities
- **Advocacy and partnerships:** advocating for and working with state and federal governments, neighbouring councils, organisations and landowners to protect biodiversity.

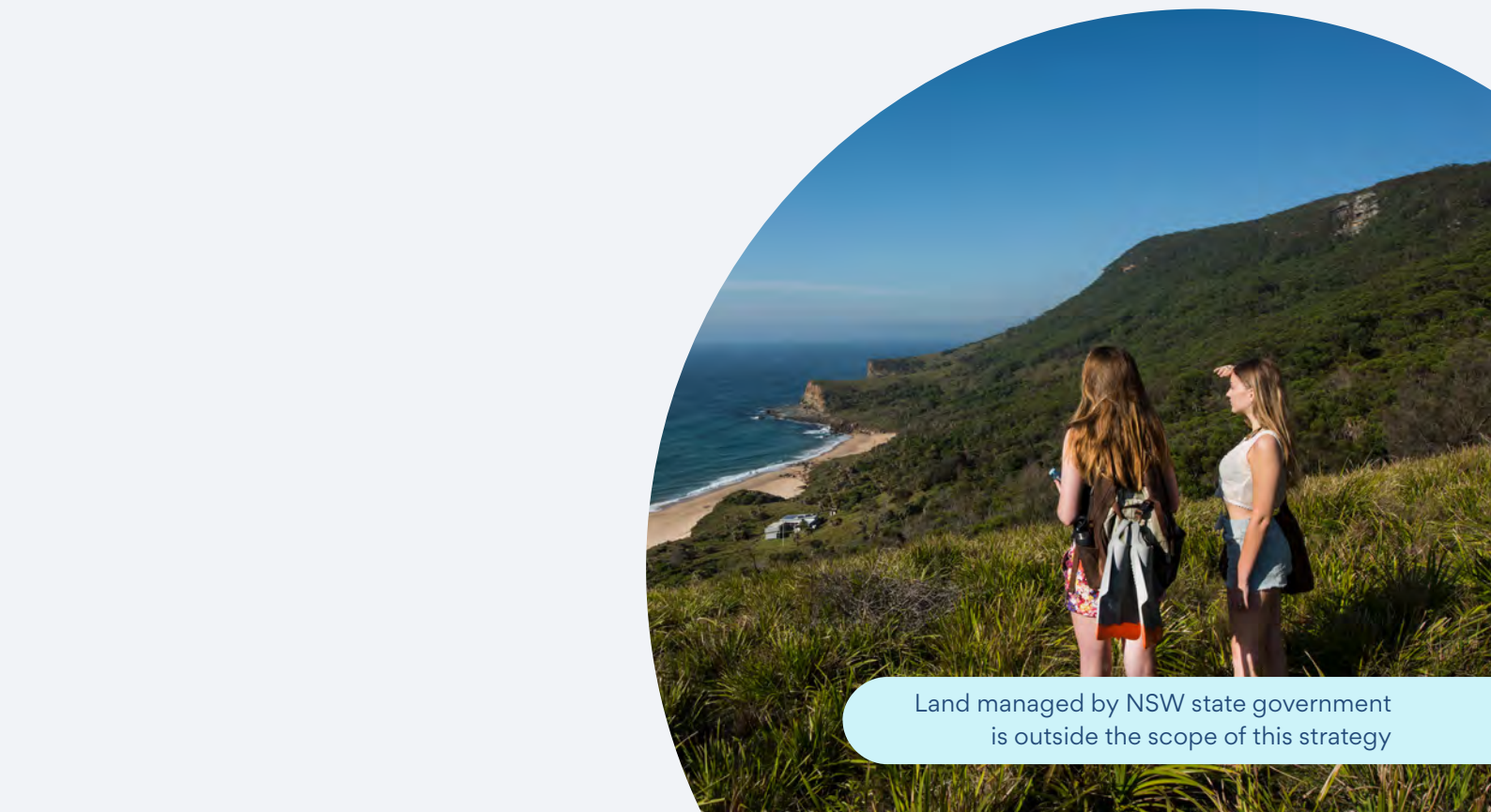
The scope of Council's biodiversity responsibilities is outlined in Table 2.

Within scope (direct influence)

Council-managed land	We manage extensive bushland, parks, riparian reserves, streetscapes and public spaces. Through this role, we can apply 'Biodiversity in Place' design principles to restore habitat; manage weeds, biosecurity and pests; improve canopy cover; monitor biodiversity; and strengthen water quality and habitat connections.
Bushcare and Community Nursery	We support community stewardship through Bushcare, the Community Nursery and volunteer programs, which help build skills, knowledge and local involvement in caring for natural habitats.
Nature-based solutions	We plan, deliver and maintain urban trees and green infrastructure on public land. Through targeted planting, water-sensitive urban design and effective maintenance, we can expand tree canopy, enhance habitat, cool neighbourhoods, manage stormwater and strengthen climate resilience.
Planning controls, development assessment and compliance	We guide development through planning controls such as the Local Environmental Plan and Development Control Plan. Through development assessment and compliance processes, we can protect biodiversity and minimise impacts on habitats and species.
Partnerships	We work with organisations such as Georges Riverkeeper, the Sydney Coastal Councils Network and Local Land Services. These partnerships support coordinated land management, knowledge sharing and the delivery of projects across the region.
Monitoring and reporting	We monitor habitat condition, tree canopy and key species across Sutherland Shire. Tracking these changes helps guide future management decisions and demonstrates to the community the outcomes of conservation and restoration efforts.

Within scope (indirect influence)	
Private land and development beyond minimum controls	We cannot directly control how private land is managed beyond planning requirements. However, Council can influence biodiversity outcomes through education, advocacy, guidance and incentives. This includes promoting ‘Biodiversity in Place’ design principles such as tree planting, bird-safe window glazing, habitat features and water sensitive urban design.
Community-led stewardship and behaviour change	We will foster respectful partnerships with Aboriginal and Torres Strait Islander peoples to support connection to Country, and empower the wider community through education, volunteering and partnerships to understand and care for local biodiversity.
Out of scope (indirect influence)	
NSW State and Australian government managed lands	These terrestrial and aquatic ecosystems are governed by state and federal conservation strategies and legislation, and are not addressed in this Strategy. We will support and collaborate with the NSW and Australian governments on landscape-scale conservation on-ground initiatives and through planning and assessments mechanisms.

Table 2. Scope of our biodiversity responsibilities.



An aerial view of a model of a building with a green roof and courtyard. The building has a light-colored facade and several windows. The roof is covered in a dense layer of green plants and flowers. The courtyard is a small, enclosed area with a green lawn and a few small trees. Several small figures of people are visible on the roof and in the courtyard, suggesting a scale of the model. The model is set against a background of a real-world urban environment with trees and a road.

Hosted at South Village, the Australian Museum's Future Now exhibition explored how people and nature can both flourish.

URBAN BIODIVERSITY

Importance of biodiversity
Biodiversity challenges

Urban biodiversity

The rapid and unprecedented decline of biodiversity is one of the world's most significant environmental challenges.

Urban growth and development, including vegetation clearing, habitat fragmentation and increasing pressure on natural resources, are key contributors to habitat loss and degradation, threatening the resilience of native flora, fauna and ecological communities.

However, urban areas also hold immense potential for biodiversity recovery. They contain rich assemblages of native species across bushland, wetlands and waterways, and within everyday connecting spaces such as backyards, street trees, drainage corridors and neighbourhood parks.

In Sutherland Shire, the national parks estate, and protected coastal and wetland areas provide large, relatively intact core habitats, supporting high levels of biodiversity. These areas act as essential refuges for species to feed, breed and thrive. Urban green spaces, ecological interfaces and corridors complement core habitats by creating vital biodiversity connections through the urban area.

When thoughtfully planned and managed, urban environments can protect sensitive habitats, support species movement, improve ecological connectivity and ecosystem health.

Responsible dog management

Helping wildlife move safely relies on responsible dog ownership in bushland and urban areas. Keeping dogs on a leash reduces disturbance to native wildlife, including koalas moving between habitat areas. Picking up dog waste helps prevent the spread of disease, protects soil and water quality, and reduces impacts on native fauna.

Through Council's Invasive Species and Wildlife Protection Area Policy, companion animals are prohibited in declared Wildlife Protection Areas to protect high-conservation-value habitats and support biodiversity conservation.

Protecting our wildlife through responsible dog management



Importance of biodiversity

Biodiversity is essential for sustaining healthy ecosystems and building resilient communities (Figure 7). When natural areas are connected and thriving, they are more capable of withstanding shocks, adapting to change and bouncing back after disturbance. They also provide essential benefits, known as ecosystem services, which can support people. Trees cool our streets and improve air quality, vegetation and soils soak up stormwater and reduce flooding, and plants store carbon and sustain pollinators. Together, these natural systems help protect our homes and communities from heatwaves, flooding and extreme rainfall.

Biodiverse bushland, waterways and green spaces also support healthier, happier communities. Spending time in bushland, waterways and green spaces helps people unwind, stay active and feel more connected to where they live, supporting both mental and physical wellbeing.

Biodiversity also enriches Sutherland Shire's economy, identity and liveability by shaping neighbourhood character, drawing people to our beaches, bushland and waterways, and supporting the ecological systems that protect our community into the future.

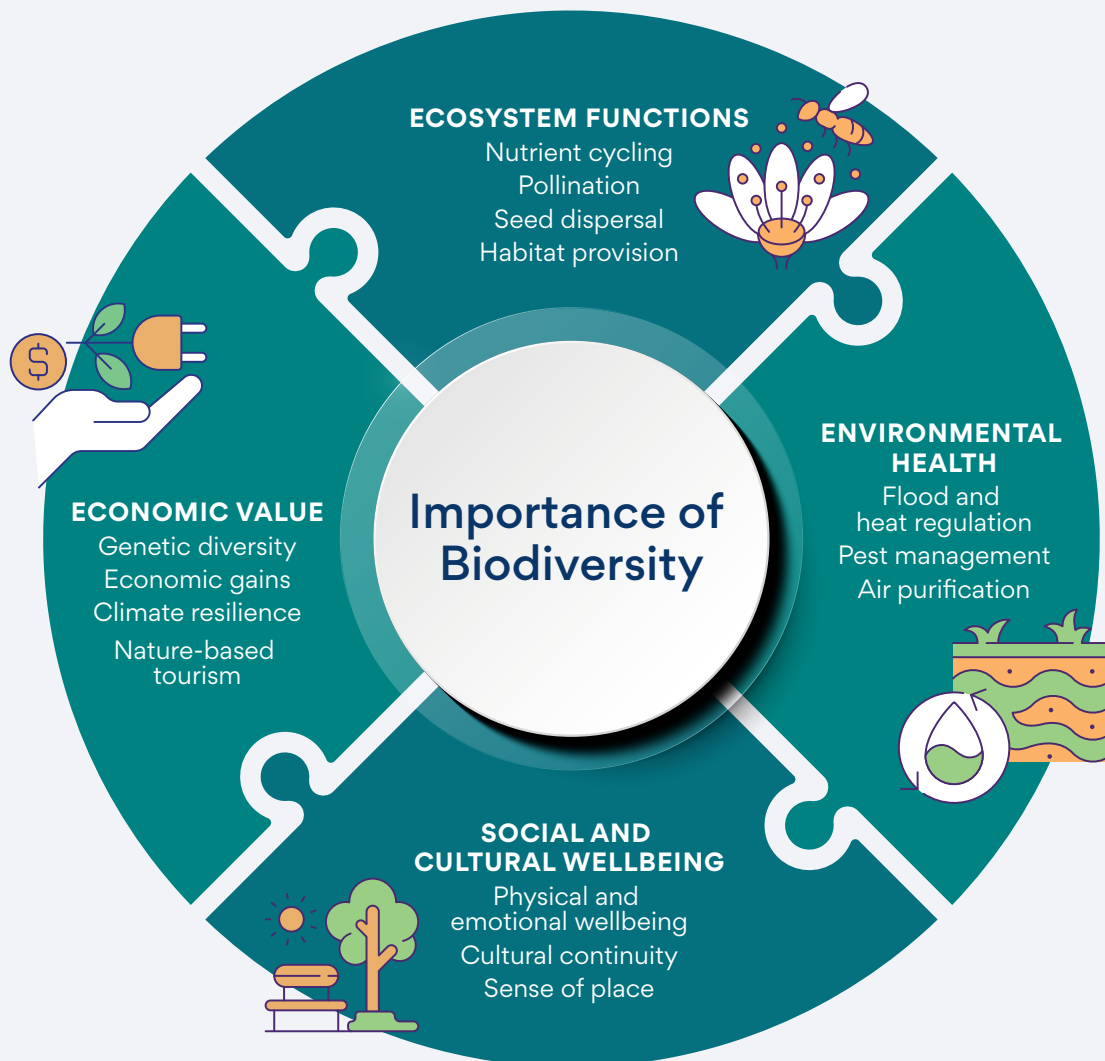


Figure 7. Importance of biodiversity for ecosystem functions, environmental health, social and cultural wellbeing, and economic value. Adopted from City of Melbourne.⁷

Biodiversity challenges

A range of pressures is affecting Sutherland Shire's native plants, animals and ecological systems. Urban development, weeds, diseases, pests and pollution continue to degrade and fragment bushland, waterways and coastal environments. Edge effects, altered fire regimes and increased urban-runoff further compromise habitat quality.

High density neighbourhoods with limited greenery and large areas of hard paved and concrete surfaces are particularly vulnerable to heat. This places additional stress on heat-sensitive species such as flying foxes and koalas.

Urban flooding occurs predominantly within low-lying and constrained catchments of the Woronora, Georges and Port Hacking river systems. As floodwaters move through the landscape, they can carry pollution, sediment and debris, resulting in impacts on water quality, aquatic habitats and the ecosystems that depend on them.

Bushfires also pose a threat, with much of Sutherland Shire classified as bushfire prone.

Increasingly frequent and intense fires endanger native animals and damage fire-sensitive ecosystems, including rainforests.

Invasive species and disease outbreaks create serious biosecurity risks by displacing native species, degrading habitat and disrupting ecological processes (Appendix 2).

Interrupted custodial practice is also a concern. Aboriginal peoples hold deep cultural, spiritual and ecological knowledge developed through continuous care for Country over thousands of years. The impacts of European settlement, together with contemporary planning, governance and land access arrangements, have disrupted opportunities for ongoing cultural practice, custodianship, ecological stewardship and the intergenerational transfer of knowledge.

Delays in adding biodiversity records collected by ecologists and citizen scientists to NSW Government databases was identified as a potential challenge to effective biodiversity planning and management.

Understanding bird flu

Avian influenza (bird flu) is a highly contagious viral disease affecting wild birds, poultry and other animals. Although the risk to human health remains low, the highly pathogenic H5N1 strain has caused significant wildlife impacts globally and has recently been detected in wild birds in New South Wales.

The Sutherland Shire's extensive coastal, estuarine and wetland habitats support diverse resident and migratory bird populations, making ongoing vigilance important. Residents should avoid handling sick or dead birds and report sightings to biosecurity authorities.

Bar-tailed godwits (*Limosa lapponica*) complete an extraordinary 13,500-kilometre nonstop migration from Alaska to Australasia, including Sutherland Shire.



Crimson Rosella
(*Platycercus elegans*)



SUTHERLAND SHIRE'S BIODIVERSITY

Threatened flora
Threatened fauna
Environmental management
Community leadership

Sutherland Shire's biodiversity

The relationship between people and the landscapes of the Sutherland Shire is longstanding and important to the area's identity.

For Aboriginal and Torres Strait Islander peoples, Sutherland Shire is part of a living cultural landscape shaped through thousands of years of custodianship, knowledge and continuous connection to Country. This relationship changed significantly after colonial settlement. The introduction of European agriculture, industry and urban development modified the rivers, wetlands and landforms across the area.

Today, Sutherland Shire contains one of the most ecologically diverse landscapes in metropolitan Sydney. Over 50% of the Sutherland Shire is green open space, including more than 550 Council-managed parks and reserves.⁸ Key biodiversity areas within the scope of this Strategy are concentrated around national parks, waterways and estuaries, particularly the Hacking and Woronora river systems, Georges River tributaries, and the vegetated ridgelines of Barden Ridge, Woronora Heights, Menai and Bangor, which provide important habitat connectivity and ecological resilience.

Fauna diversity

Sutherland Shire supports high biodiversity, with more than 330 bird species, 76 reptiles and amphibians, and 41 mammal species recorded across its diverse landscapes. This richness reflects Sutherland Shire's mix of bushland, waterways and coastal environments.

Council validates biodiversity mapping through on-ground ecological assessments. Assessments completed in 2025 and 2026 strengthened the accuracy of biodiversity information used in the development of this Strategy and to guide biodiversity conservation, management and planning decisions.

Sutherland Shire's ecosystems, native species and ecological processes are protected under the *Biodiversity Conservation Act 2016 (NSW)* and the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Key aquatic habitats and marine vegetation, including mangroves, saltmarsh and seagrass communities, are further protected under the *Fisheries Management Act 1994 (NSW)*. Appendix 1 includes the priority species as listed by the commonwealth and state governments.



Eastern Water Skink (*Eulamprus quoyii*), Woronora River

Threatened flora

Sutherland Shire's native flora, including trees, shrubs, grasses, groundcovers, vines, ferns and aquatic plants, underpins ecological communities and ecosystem processes. Different vegetation layers provide habitat, food and shelter, while fungi and soil organisms recycle nutrients. Diverse, locally appropriate plant species and strong genetic diversity support pollinators, resilience and adaptation to environmental change including disease, heat and drought.

The Georges River, Woronora River, Mill Creek, Towra Point and Port Hacking also contain important estuarine environments, supporting more than 300 hectares of seagrass meadows.⁹ These meadows, dominated by species such as the endangered *Posidonia australis*, *Zostera spp.* and *Halophila spp.*, play a vital role in anchoring sediments, providing habitat for fish and marine life, and maintaining healthy estuarine ecosystems.

Several native vegetation communities in Sutherland Shire are protected under environmental legislation due to significant decline. Classified as Vulnerable, Endangered or Critically Endangered, they are highly sensitive to disturbance, altered water flows and fragmentation. Listed communities within Sutherland Shire include:

- Coastal Saltmarsh
- Coastal Upland Swamp
- Eastern Suburbs Banksia Scrub
- Duffy's Forest
- Kurnell Dune Forest
- Littoral Rainforest
- Lowland Rainforest
- River Flat Eucalypt Forest
- Shale Sandstone Transition Forest
- Swamp Oak Floodplain Forest
- Swamp Sclerophyll Forest
- Sydney Freshwater Wetlands
- Sydney Turpentine–Ironbark Forest
- Themeda grassland.¹⁰

Additionally, 35 plant species are listed as threatened and receive State and Commonwealth protection for conservation including Villous Mint Bush (*Prostanthera densa*), Magenta Lilly Pilly (*Syzygium paniculatum*), Deane's Paperbark (*Melaleuca deanei*), Camfield's Stringybark (*Eucalyptus camfieldii*) and Bauer's Midge Orchid (*Genoplesium baueri*).

Council works collaboratively with state agencies, Crown land managers and conservation partners to protect threatened flora on Council-managed land and contribute to broader landscape-scale conservation outcomes.



Heath-leaved Banksia (*Banksia ericifolia*), Prince Edward Park

Threatened fauna

Sutherland Shire supports 111 animal species that are threatened and of regional importance, concentrated within bushland corridors, wetlands, riparian systems and estuarine habitats.

These include the Koala (*Phascolarctos cinereus*) within bushland corridors of Barden Ridge, Loftus, Woronora, Heathcote and Engadine,¹¹ the Grey-headed Flying-fox (*Pteropus poliocephalus*) at Kareela, Towra Point and Camellia Gardens; the Green and Golden Bell Frog (*Litoria aurea*), Red-crowned Toadlet (*Pseudophryne australis*) and Giant Burrowing Frog (*Heleioporus australiacus*) along the Hacking and Woronora Rivers; and hollow-dependent species such as the Southern Greater Glider (*Petauroides volans*) and Powerful Owl (*Ninox strenua*) within bushland with mature trees.

Effective management, especially for the intertidal zone, is necessary to minimise human disturbance and maintain the ecological integrity of key feeding, roosting and breeding habitats.

Local coastal areas including Taren Point Shorebird Reserve, Deeban Spit and Gunnamatta Bay support habitat for both migratory and resident shorebirds. Migratory species, including the Bar-tailed Godwit (*Limosa lapponica*) and Eastern Curlew (*Numenius madagascariensis*), are protected under Australian legislation and international agreements such as the Japan–Australia Migratory Bird Agreement (JAMBA) and China–Australia Migratory Bird Agreement (CAMBA). Resident species like the Pied Oystercatcher (*Haematopus longirostris*) are listed as an endangered species under the *Biodiversity Conservation Act 2016* (NSW).

Protecting threatened ecological communities and priority species requires retaining hollow-bearing trees, enhancing habitat and vegetation connectivity, improving water quality and applying fire and hydrological regimes that support ecological health.

Key threats to native fauna

Many native fauna species face common pressures, including habitat fragmentation, weed invasion, pest animals, roaming companion cats and dogs, pollution, altered fire regimes and disturbance. Addressing these threats through habitat protection, wildlife corridors, ecological restoration, invasive species control and improved land management supports healthy, resilient ecosystems.

Keeping cats contained helps protect native wildlife and supports biodiversity in our urban neighbourhoods.



Environmental management

Environmental management involves a planned and proactive approach to protecting and enhancing biodiversity through evidence-based practices, policy frameworks and sustainable land management.

Council will continue to demonstrate environmental stewardship through its Bushcare, Greenweb, invasive species and native nursery programs. These programs will focus on restoring and improving biodiversity through weed and pest control, natural regeneration, habitat protection and indigenous planting.

Environmental stewardship will be integrated into Council operations, with activities such as mowing, pruning and spraying managed to retain habitat, protect native species and minimise disturbance values across parks, reserves, golf courses, roadsides, verges and town centres. Ecological fire management practices, wildlife-sensitive lighting, roadside protection devices, installation of artificial habitats and promotion of responsible pet ownership will further support biodiversity outcomes.

Planning and development controls will be used to protect biodiversity by conserving native vegetation, reducing topsoil loss and sediment impacts, and encouraging landscaping that reflects local ecological communities using indigenous canopy, shrub, understorey and groundcover species.

Council will continue to work with Traditional Custodians to support cultural land and waterway management and incorporate traditional ecological knowledge into caring for Country.

Protecting ecosystem health also requires education, operational management and enforcement measures to reduce pollution from plastics, illegal green waste dumping and other contaminants that affect biodiversity and water quality. This integrated approach will help maintain healthy ecosystems and strengthen environmental resilience across the urban area.

Greenweb program

Council's Greenweb program supports property owners and schools to protect and restore native habitat through weed control, habitat restoration and native planting.

Participants can access site assessments, educational resources, native plants and grant funding to undertake restoration works and strengthen habitat connectivity (Figure 12 - page 44).

Through the Greenweb program, residents receive guidance on plant identification, weed control and habitat restoration.



Community leadership

Local biodiversity conservation relies on the knowledge, participation and stewardship of Traditional Custodians, environmental groups, Bushcare and nursery volunteers, wildlife carers, citizen scientists, researchers and the wider community. Together, they make an important contribution to understanding, protecting and restoring local ecosystems.

Environmental education programs at the Royal and Kamay Botany Bay National Parks, the Discovery Ranger program, Gamay Rangers and the ANSTO Discovery Centre help schools, families and community members learn about local biodiversity, caring for Country and practical actions to support nature.

Citizen science initiatives such as FrogID, iNaturalist, eBird, eDNA and CoastSnap enable people to record observations of plants, animals, fungi and environmental change. These records contribute valuable data, helping build biodiversity knowledge and guide monitoring, research and conservation efforts.

Bushcare is a community-based volunteer program supported by Council. More than 500 volunteers help manage 110 Bushcare sites, playing a vital role in restoring and protecting local bushland. The program marked its 30th anniversary in May 2023, celebrating decades of community stewardship.

Volunteers are also integral to Council's native nursery, helping propagate around 190,000 plants from more than 300 native species each year. These plants support restoration projects, community groups, schools and Council's free native plant giveaway program for ratepayers.

Council also delivers a range of community biodiversity events, including National Tree Day plantings, guided nature walks and Aboriginal Bushfood walks, providing opportunities for residents to connect with nature, learn about local biodiversity and contribute to conservation outcomes.

Restoring Sea Country

At Kurnell, a partnership between Sydney Airport, the Sydney Institute of Marine Science, the University of NSW and the Gamay Rangers is restoring endangered *Posidonia australis* seagrass. By combining Traditional Custodian knowledge, hands-on learning and community involvement, including Kurnell Public School, the project is rebuilding vital marine habitat and inspiring local people to care for and reconnect with Sea Country.

Working together to restore the endangered *Posidonia australis* seagrass. Photo credit: Tom Burd, Sydney Institute of Marine Science.



An aerial photograph showing a coastal area. On the left, there's a body of water with a small white boat. The water transitions from deep blue to a lighter, greenish-blue near the shore, indicating shallow water and possibly a reef or sandbar. A small pier or breakwater extends into the water. To the right of the water, there's a sandy beach and a dense line of trees. Further inland, there are residential houses with various roof colors (red, grey, white) and some green spaces. The overall scene is a mix of natural coastal features and human development.

Hungry Point Reserve
and Darook Park, Cronulla

LANDSCAPE CONTEXT



Core habitats
Urban green spaces
Ecological interfaces
Corridors

Landscape context

Biodiversity is deeply linked, with actions in one place shaping the health of species and ecosystems throughout the wider landscape.

Landscape context describes the spatial relationships between different ecological features, including core habitat, urban green places, ecological interfaces, and corridors, and how those relationships influence ecological processes, pressures and species movement (Figure 8). Further detail on each of the four landscape

contexts is provided in the following sections. By applying a landscape context approach supported by environmental legislation, Council can assess how ecosystems are functioning, identify resilient areas and those under stress, and map where pressures are accumulating across Sutherland Shire.

This establishes a clear, evidence-based framework for targeted, place-based initiatives, guiding the prioritisation of conservation, restoration, protection and connectivity projects throughout Sutherland Shire.



Figure 8. Spatial logic for Sutherland Shire’s urban landscape contexts.

Core habitats

Core habitats comprise largely undisturbed and ecologically significant areas that are essential to regional biodiversity and the long-term functioning of natural systems (Figure 9). Many of these areas provide valued recreation settings and strongly shape local landscape character. Most core habitats occur in the western and southern part of Sutherland Shire, with smaller, more fragmented patches in the east. Core habitats managed by the Australian and NSW governments are outside the scope of this Strategy.

Core habitats are characterised by:

- **Vegetation:** predominantly intact or near-intact native vegetation with high species diversity, minimum weeds, and a multilayered structure. These areas support natural processes such as

regeneration and succession, and losses in core habitats are difficult to replace.

- **Fauna:** habitat that provides essential resources for feeding, sheltering and breeding. These areas support source populations that disperse into surrounding landscapes, helping support species persistence, particularly for sensitive or less mobile species.
- **Hydrology:** natural waterways, wetlands and floodplains that retain healthy flow regimes and water quality. These systems support aquatic and riparian ecosystems.

Together, Sutherland Shire's core habitats provide essential ecological functions, support significant species and communities, provide valued spaces for recreation and underpin the distinctive local landscape character and liveability.



Figure 9. Lucas Heights Conservation Area core habitat.

Urban green spaces

Sutherland Shire's urban green spaces, streetscapes, neighbourhoods, parks, sports fields and private gardens function as a dispersed but important biodiversity network (Figure 10). While highly modified, these areas can still sustain ecological processes and provide daily opportunities for people to experience nature.

Their contribution depends on how they are designed and managed. Tree canopy, habitat plantings, connected green corridors, permeable surfaces and reduced disturbance significantly improve ecological performance. When intentionally planned, these areas offer refuge, food and safe pathways for birds, insects and small fauna, acting as an interconnected habitat system.

Strengthening links between urban green spaces, including Council-owned golf courses, and natural areas such as riparian corridors and reserves enhances connectivity, supports species movement and builds resilience in the face of increasing climate and development pressures.

Urban green spaces are characterised by:

- **Vegetation:** fragmented and simplified vegetation ranging from lawn, ornamentals and isolated canopy trees to small bushland reserves. Together, these areas reduce urban heat, provide habitat, support pollination and contribute to the water cycle.
- **Fauna:** many native birds, insects, reptiles and small mammals now rely on urban green spaces for food, shelter, water and movement. However, limited vegetation structure and weak habitat connectivity make these areas more vulnerable to aggressive or disturbance-tolerant species, such as foxes, deer, cats, black rats and certain bird species, which can outcompete or prey on native fauna. Urban barriers, including roads, buildings and fences, further constrain safe movement and dispersal.
- **Hydrology:** urban development disrupts natural water flows through extensive hard surfaces and modified drainage systems. These changes increase stormwater flows during rainfall events, resulting in higher run-off volumes, reduced infiltration, pollution and degraded water quality, which negatively impact waterways and downstream ecosystems.



Figure 10. Aerial view of Miranda and surrounding suburbs showing different types of urban green spaces including pocket parks, permeable green areas, private backyards, sports fields, street tree networks and green links

Ecological interfaces

Ecological interfaces are the transitional areas between urban development and natural ecosystems (Figure 9). These areas function as critical ecological pressure points, early indicators of biodiversity loss and shifts in community resilience, while also presenting significant opportunities for targeted interventions that can deliver meaningful environmental and social outcomes.

When degraded, ecological interfaces can reduce habitat quality and resilience within natural areas, while increasing urban exposure to issues like heat stress, flooding and erosion.

When ecological interfaces are thoughtfully designed, linked across the landscape and maintained, they boost ecological resilience by protecting biodiversity, supporting species movement and keeping natural systems functioning well. At the same time, they offer important benefits for urban neighbourhoods, cooling local climates, managing stormwater, improving amenity and reducing residents' exposure to environmental and climate risks.

Ecological interfaces are characterised by:

- **Vegetation:** these areas are frequently exposed to disturbance, weed invasion and altered microclimatic conditions. This includes places where bushland borders roads, utility corridors and fire trails, and where residential fences adjoin reserves and asset protection zones (APZs).
- **Fauna:** ecological interfaces often attract resilient, adaptable species such as the Noisy Miner (*Manorina melanocephala*), Rainbow Lorikeet (*Trichoglossus moluccanus*), and introduced pest species like the European Red Fox (*Vulpes vulpes*). More sensitive native fauna, including Echidnas (*Tachyglossus aculeatus*), Eastern Blue-tongue Lizards (*Tiliqua scincoides*) and arboreal mammals, face increased risks from disturbance, artificial lighting, loss of shelter, vehicle traffic and predation by cats and dogs.
- **Hydrology:** these areas often include hardened surfaces, stormwater outlets and built infrastructure that channel urban run-off. Without vegetation or natural features to slow the flow of water, erosion increases, water quality declines and riparian banks become unstable.



Ecological interfaces are protective buffers for both suburbs and natural habitats

Corridors

Corridors keep ecosystems connected by providing native plants and animals ways to move safely through the landscape (Figure 11). Some take the form of long, continuous stretches of habitat, while others are smaller pockets that offer shelter or resources within built-up or fragmented areas. Corridors can thread through bushland, under powerlines, along waterways, or even between streets and green open spaces. Their ecological purpose, rather than their location, defines them.

Keeping corridors healthy and connected is vital for reducing fragmentation, supporting continuous habitat and giving wildlife safe places to move and shelter. As corridors span many different types of land ownership, addressing shared management issues, from invasive plants and animals to fire risks and disease, requires collective action from all landowners. This includes asset owners responsible for electricity, drinking and wastewater, streetlighting and underground infrastructure.

Corridors are characterised by:

- **Vegetation:** continuous or closely linked vegetation with diverse structure and predominantly indigenous native species. This vegetation supports seed movement, genetic mixing and the natural regeneration of many native species, helping maintain ecological resilience across the landscape.
- **Fauna:** habitat pathways that enable safe wildlife movement across the landscape. Their structurally diverse vegetation provides shelter, food and favourable microclimates, enabling sensitive native species, such as small woodland birds, reptiles, and arboreal mammals, to move through the landscape without crossing exposed or high-risk areas.
- **Hydrology:** creeks, rivers and drainage lines form the hydrological backbone of Sutherland Shire's corridor system. Protecting natural flow routes across Sutherland Shire's sub-catchments will allow water, sediment, nutrients and aquatic species to travel naturally from the headwaters all the way to the estuaries, supporting healthy and connected ecosystems.



Figure 11. Aerial view of Sutherland and surrounding suburbs highlighting riparian and bushland corridors, an ecological interface and a fragmented area.

Bushcare volunteers protecting Joseph
Banks Native Plants Reserve, Kareela

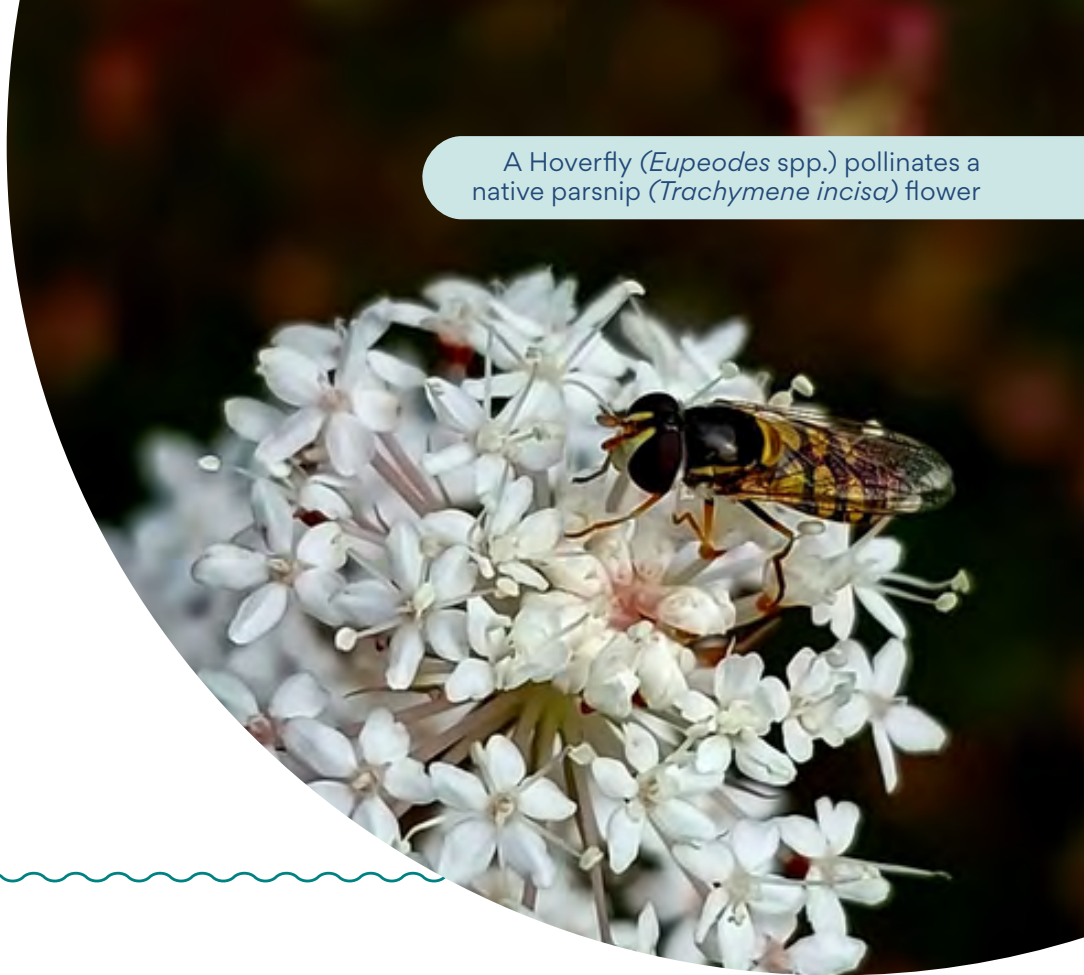


KEY AREA PROTECT

PRIORITIES

-
- 1 Habitat resilience
 - 2 Species recovery

A Hoverfly (*Eupeodes* spp.) pollinates a native parsnip (*Trachymene incisa*) flower



KEY AREA PROTECT

Protecting ecological integrity and ecosystem health, now and for the future.

The Protect key area focuses on protecting and restoring ecosystems across Sutherland Shire's urban bushland, green spaces and private properties so native species can thrive. Priority is placed on locations with threatened flora and fauna, form part of established Bushcare or Greenweb networks, or support threatened species and ecological communities. These areas play a vital role in maintaining ecological function, supporting wildlife movements, and sustaining the natural character of Sutherland Shire.

By applying the right actions and focus in the right places at the right time, we will protect what is already functioning well, support recovery

where vulnerability is increasing, and intervene early where ecosystems are at risk of decline. This approach allows us to address existing pressures while strengthening resilience to future challenges such as climate change, urban development, invasive species and altered fire regimes.

We will continue to deliver on-ground outcomes within the areas we manage, including weed and pest control, habitat restoration, erosion management, and enhancement of ecological corridors. We will also demonstrate leadership by partnering with landowners, agencies and community groups, and advocating for stronger biodiversity protection across the wider landscape.

The Protect key area will be implemented through Habitat resilience and Species recovery priorities and associated actions.

HABITAT RESILIENCE

Objective

To enhance habitat resilience by establishing an urban biodiversity baseline, improving ecosystem condition, and reducing fragmentation and disturbance.



Female Golden Whistler
(*Pachycephala pectoralis*) in nest

Achievements so far...

- caring for and maintaining Council-managed bushland and coastal reserves
- collaborating with government agencies, land managers and community partners to deliver landscape-scale invasive species and biosecurity programs
- Council's award-winning community nursery that annually grows thousands of local native plants to support community and council biodiversity projects.

Council will...

- develop and apply a habitat condition methodology that establishes an urban biodiversity resilience baseline and provides a framework for protection and management
- partner with government and land managers to deliver coordinated, landscape-scale biosecurity and invasive species programs, supported by research, innovation and incentives
- advocate for local, state and federal policies that recognise and uphold the biodiversity resilience needs of Sutherland Shire
- protect ecologically important bushland, foreshore and coastal habitats through stronger management plans, seasonal protections and community awareness.

Why is it important?

To improve urban biodiversity resilience in Sutherland Shire, Council's best-practice bushland and coastal restoration programs need to be complemented by broader action across urban green spaces and ecological corridors.

Strengthening biodiversity in these areas requires developing a clear urban biodiversity baseline that identifies habitat condition, connectivity and areas under pressure. This baseline will provide a robust foundation for monitoring biodiversity trends and directing action to address key pressures such as habitat fragmentation, invasive species, altered fire regimes, climate change and loss of ecological connectivity.

Its development will draw on recognised best-practice frameworks, including the Shared Environmental Risk Assessment (SERA) Wheel, the NSW Biodiversity Indicator Program and the United Nations City Biodiversity Index.¹² The baseline will guide informed decision making that protects ecological integrity, reduces fragmentation and disturbance, and embeds biodiversity outcomes in urban design and development.

Together, these actions will help build a more resilient and interconnected urban biodiversity network for the future.

From action to outcomes

Biodiversity is complex and requires a suite of indicators to assess its condition and change over time. Council will develop a science-based monitoring approach to evaluate the health and resilience of urban ecosystems and determine whether actions such as weed control, bush regeneration and pest management are delivering positive biodiversity outcomes.

The Sydney Red Gum (*Angophora costata*) is a cherished and ecologically important species across Sutherland Shire



SPECIES RECOVERY

Objective

To work collaboratively with partners to deliver targeted, timely interventions that strengthen the recovery and long-term survival of threatened species.

Grey-headed Flying-fox
(*Pteropus poliocephalus*)
Photo credit: Karen Swanson,
Port Hacking Camera Club



Achievements so far...

- Establishing strong strategic directions in the following plans for threatened species:
 - Koala Management Plan
 - Grey-headed Flying-fox camp management plans
- strengthening the long-term resilience of coastal vegetation by expanding coastal restoration efforts, including large-scale propagation and planting of coastal grasses (*Spinifex* spp.) grown by our community nursery.

Council will...

- implement the Koala Management Plan and the Catchment and Waterways Management Plan
- create and apply focused recovery actions tailored to the conservation requirements of threatened plant and animal species
- conserve, restore and monitor migratory shorebird habitat within Council's legislative control and responsibility.

Why is it important?

Threatened plant and animal species act as important ecological indicators and visible ambassadors for biodiversity across Sutherland Shire. By focusing effort on species such as the Koala (*Phascolarctos cinereus*), Grey-headed Flying-fox (*Pteropus poliocephalus*), migratory Little Tern (*Sternula albifrons*), and coastal spinifex (*Spinifex sericeus*), we can deliver targeted, time-sensitive actions that directly address critical threats. These interventions help build population resilience, support long-term persistence, and maintain genetic diversity.

Targeted species recovery is essential because not all threatened species can be secured through habitat management alone. Instead of

developing broad plans for every listed species, we will concentrate on a select group chosen for their ecological significance, vulnerability and community recognition. This focused approach strengthens alignment between habitat management and species outcomes, enables clearer monitoring of recovery progress, and improves communication with the community.

Linking targeted species actions to the broader habitat condition-based methodology (Priority 1 Habitat resilience) ensures these efforts contribute to landscape-scale resilience and prioritise interventions that prevent local biodiversity decline.

Protecting our predators

Slow-acting first-generation rodenticides allow targeted pest rodents to die in their nests, reducing secondary poisoning of owls, raptors and other predators. When required, we will choose these products as the safer option, helping manage pest rodent issues while safeguarding the wildlife species essential for healthy, functioning ecosystems.

This approach supports pest control, aligns with environmental stewardship commitments, and balances public health protection with ethical, science-based urban land management practices.



Powerful Owl (*Ninox strenua*)

Georges Riverkeeper representatives
at Oyster Bay Gully



KEY AREA CONNECT

PRIORITY



3 Lead with nature



KEY AREA CONNECT

Connecting urban habitats strengthens biodiversity, enhances resilience, and supports thriving natural communities.

Connected landscapes enable wildlife movement, natural regeneration and healthy ecosystems while keeping nature accessible to the community. They create cooler, greener and more resilient neighbourhoods that support biodiversity, wellbeing and climate adaptation.

Council is committed to strengthening ecological connectivity across Sutherland Shire through the continued delivery of its Greenweb, Bushcare and native nursery programs. Council will also embed the NSW Government's Biodiversity in Place framework and nature-based infrastructure principles into planning, place-making, asset management and operational practices to support a more connected and resilient landscape.

This approach recognises that streets, parks, drainage corridors and other green spaces all contribute to a broader ecological network. This key area improves habitat connectivity, expands corridor networks and enhances the health and resilience of ecological interfaces between natural and urban areas.

By integrating ecological design into everyday decisions and working collaboratively across the organisation and community, Council will foster urban landscapes that allow species movement, sustain ecosystem processes and support thriving, climate-resilient communities.

The Connect key area will be delivered through the Lead with nature priority and its associated actions.



LEAD WITH NATURE

Objective

To ensure planning and organisational decisions consider urban biodiversity and habitat, enhancing ecological function and people's connection to nature.

Achievements so far...

- delivering over 20 years of the Greenweb program through Council's planning framework and on-ground biodiversity support
- establishing a strong strategic direction through our:
 - Tree and Bushland Strategy
 - Catchment and Waterways Strategy
- growing urban canopy through the Green Streets Program, planting almost 14,000 trees across road reserves and public spaces since 2013.

Council will...

- strengthen planning, public domain and traffic management controls to protect biodiversity and improve habitat connectivity
- apply Biodiversity in Place principles to major projects and upgrades, showing how infrastructure can enhance ecosystems
- improve streets, parks, drainage and water systems so they function as habitat, strengthen green-blue networks, and protect ecological interfaces and corridors
- embed consistent biodiversity assessment, condition, risk and performance across governance, finance, planning, public domain and asset systems.



Insect hotel strengthening the health of strata-managed gardens

Why is it important?

Leading with nature is essential because Sutherland Shire's ecosystems rely not only on national parks and bushland reserves, but also on the surrounding urban landscape. While core habitats form the ecological backbone of the region, their long-term resilience depends on how well streets, verges, drainage lines, parks, private gardens and transport corridors function as connected ecological spaces. As urbanisation intensifies, these areas increasingly influence species movement, water flow, heat distribution and overall ecosystem health. When they become degraded or disconnected, pressure intensifies on remaining natural areas and opportunities for climate adaptation decline.

Recognising urban areas as ecological infrastructure allows small, distributed actions to collectively strengthen habitat value, connectivity and ecosystem services, while also supporting community wellbeing. Embedding biodiversity, Greenweb, ecosystem services and natural capital into planning, governance and asset management will ensure ecological condition becomes a core consideration in decision-making. Leading with nature will help secure long-term resilience, ensuring today's choices support healthy ecosystems for future generations.

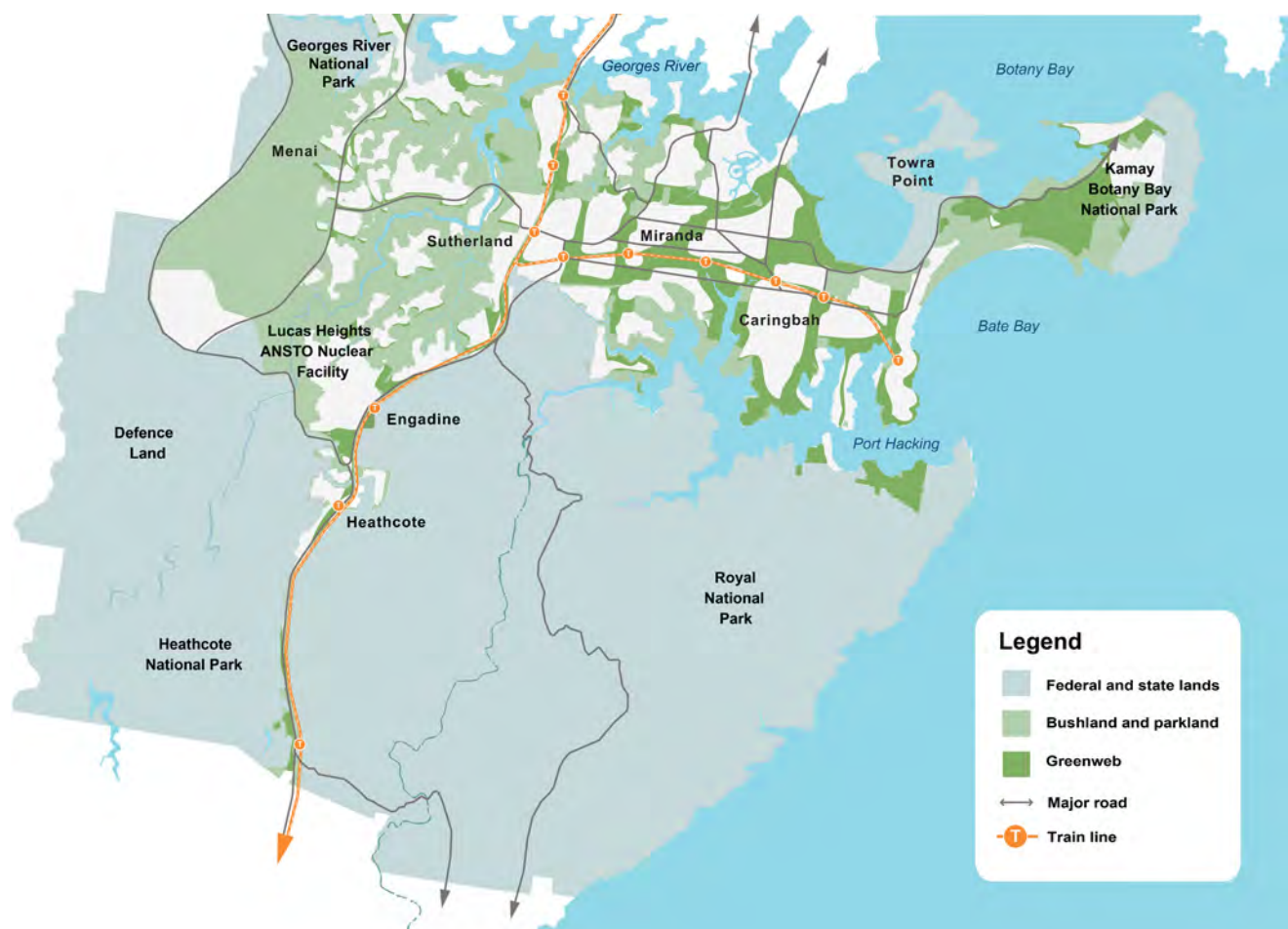


Figure 12. Greenweb is a Council initiative supporting biodiversity on private land.

Bushcare volunteers at
our Community Nursery



KEY AREA CELEBRATE

PRIORITIES

- 4 Connect with Country
- 5 Biodiversity stewardship



KEY AREA CELEBRATE

Champion community stewardship and support meaningful connection to Country, now and for future generations.

Celebrating the richness of Sutherland Shire's urban biodiversity means recognising the many ways our community connects with, cares for and learns from the natural environment. We acknowledge the deep and continuing knowledge of Aboriginal and Torres Strait Islander peoples, whose custodianship recognises Country as a living, interconnected system. Working in partnership with Traditional Custodians, through shared learning, co-design and ongoing collaboration, we will integrate cultural knowledge with contemporary science and design to guide more holistic and effective biodiversity care.

Across Sutherland Shire, residents, volunteers and community groups contribute significantly to local biodiversity. Bushcare volunteers restore habitat, remove invasive species and

care for natural areas, while many households and organisations enhance biodiversity through native planting, habitat creation and participation in programs such as Greenweb. Citizen science efforts further strengthen community connection by involving people in wildlife monitoring, litter collection and reporting sightings.

Enhancing a thriving, resilient urban landscape depends on shifting how people think and act. Education and behaviour-change programs will give communities the knowledge, skills and motivation to support biodiversity and care for wildlife. We will continue partnering with residents, schools, businesses and community groups, and advocate for biodiversity stewardship, strong protections, funding and partnerships.

The Celebrate key area will be delivered through Connection to Country and biodiversity stewardship priorities and their associated actions.

CONNECT WITH COUNTRY

Objective

To work in genuine partnership with Aboriginal organisations, Elders and knowledge-holders, with a commitment to uphold self-determination through co-design and shared governance, ensuring cultural priorities lead Connection to Country outcomes.

Achievements so far...

- partnering with Aboriginal communities to co-design and deliver annual Council cultural events such as the Meeting of Two Cultures and Cultural Sunset Ceremony
- advancing reconciliation through the adoption and delivery of our Innovate Reconciliation Action Plan
- strengthening cultural care in natural areas through Council's Natural Areas Aboriginal Heritage Officer.

Council will...

- invite Aboriginal and community voices to shape and deliver this Strategy in ways that respect and uphold Aboriginal self-determination and traditional ecological knowledge
- work collaboratively with Aboriginal organisations, Elders and knowledge-holders to ensure biodiversity projects are co-designed, culturally led and guided by shared governance that centres Aboriginal priorities and aspirations
- integrate cultural knowledge, stories and ecological practices into biodiversity planning, restoration and On-Country management, recognising Country as a living, interconnected and culturally significant system.



Connecting with Country

Why is it important?

Achieving a protected and connected environment requires a shift away from a human-centred approach which places people at the top of ecosystem hierarchies and decision-making. Instead, a Country-centred approach recognises the interconnectedness of people, land, water, plants and animals (Figure 13).

This approach is represented as a circular system, where all elements are understood as part of one living whole, with shared value and responsibility. This approach has guided Aboriginal peoples in caring for Country for generations.

A Country-centred approach is central to biodiversity conservation in Sutherland Shire because Aboriginal and Torres Strait Islander peoples carry the oldest living knowledge system for understanding and caring for the environment. Their cultural worldview recognises Country as a dynamic, interconnected system, offering deep insight into ecological relationships and environmental change.

A self-determination approach ensures Aboriginal organisations, Elders and knowledge-holders lead decisions about how cultural practices for caring for Country, including seasonal knowledge and approaches to fire, water and species care, are incorporated into biodiversity planning and restoration. Piloting and embedding these practices will strengthen our capacity to make culturally respectful, ecologically sound decisions.

Many culturally important sites in Sutherland Shire are also areas of high ecological value. Their protection supports both cultural identity and ecological resilience. Meaningful partnership with Aboriginal communities honours Custodianship, strengthens shared stewardship, and ensures conservation actions reflect Aboriginal priorities and aspirations for Country.

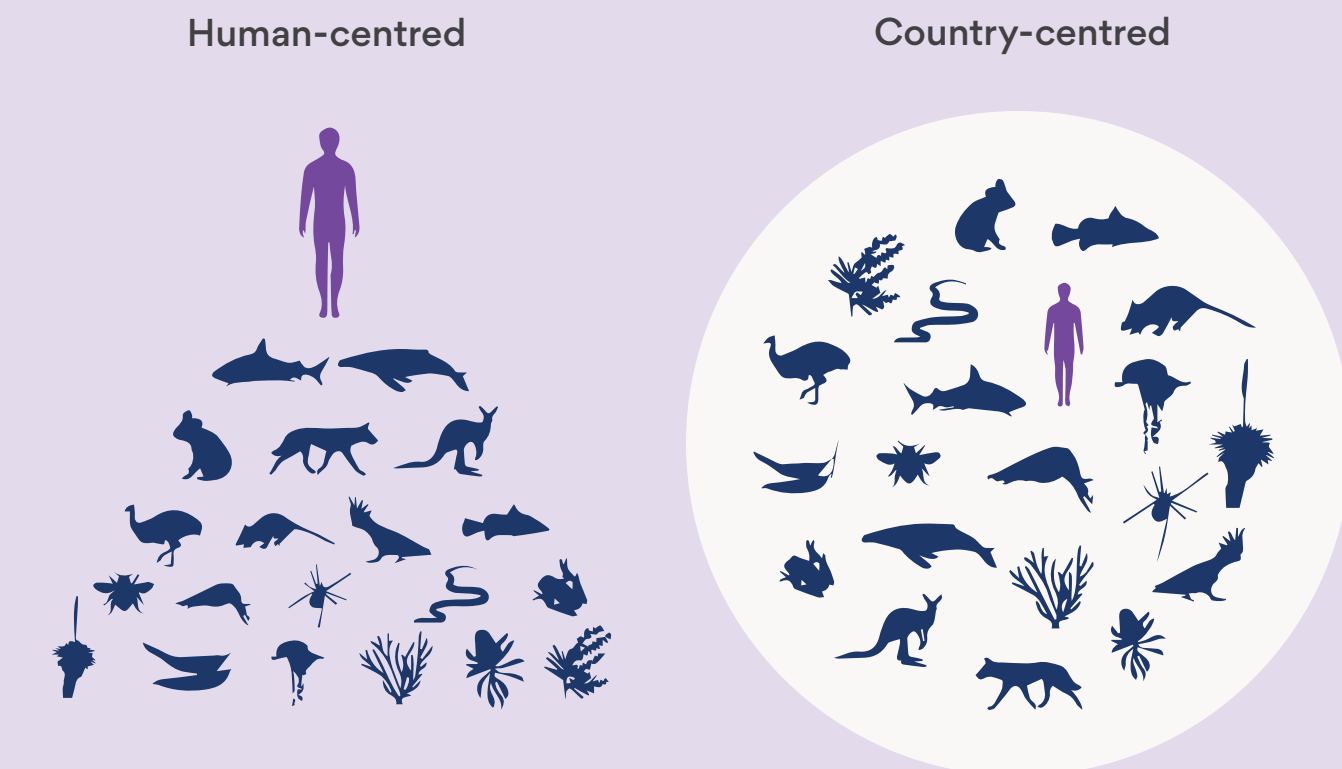


Figure 13. Comparison of human-centred and Country-centred approaches. Adapted from the Connecting with Country Framework, Government Architect NSW.

BIODIVERSITY STEWARDSHIP

Objective

To strengthen community biodiversity stewardship, work with regional partners, and provide education and behaviour-change initiatives that inspire lifelong care for the natural environment.



Volunteers at Joseph Banks Native Plants Reserve

Achievements so far...

- delivering one of Sydney's largest proactive Bushcare programs, 110 Bushcare sites
- Community education program that includes nature and Aboriginal walks, bird watching, nocturnal spotlighting, native seed collection and nursery tours
- hosting Bushcare forums and the biennial Bushcare Fair to help residents understand how bushland ecosystems function and how they can contribute to their protection
- providing ratepayers with two native plants each year to encourage biodiversity in private gardens, balconies and shared spaces
- running community nursery native plant sales and open days
- Annually recognising a community member or group for exceptional environmental contribution.

Council will...

- recognise and celebrate community members who care for nature
- support community-driven projects that protect biodiversity and habitat
- pilot a biodiversity education and behaviour-change program to build biodiversity knowledge and encourage positive behaviours
- maintain active involvement in local and regional biodiversity partnerships to deliver coordinated, landscape-scale approaches to biodiversity protection and restoration
- build on strong community participation to secure grant funding and investment for local biodiversity projects.

Why is it important?

Fostering biodiversity stewardship and strengthening community connection to nature are essential for sustaining Sutherland Shire's ecological health. As a land manager, convenor and long-term steward, we are uniquely positioned to guide how stewardship is supported, scaled and shared across the region. These decisions influence whether care for nature becomes embedded within the community, or whether pressures continue to accumulate until costly intervention is unavoidable.

Council-led programs such as Bushcare, Greenweb and community greening initiatives

demonstrate how local action can expand habitat, reduce threats and build the long-term skills and ownership needed to maintain healthy ecosystems.

Many biodiversity challenges, such as catchment health, migratory species protection and biosecurity, extend beyond individual sites. By partnering across government, community and research sectors, we can shift biodiversity protection from isolated efforts to shared, enduring care that keeps pace with growth and environmental change.

Volunteers creating a wilder future

Across Sutherland Shire, volunteer wildlife carers and local veterinarians work together to rescue, rehabilitate and protect Australia's native wildlife. They respond to animals impacted by dog attacks and car accidents, and those trapped in homes or backyard swimming pools. With dedication and care, injured and orphaned animals are nursed back to health. Each successful release into surrounding bushland becomes a shared achievement, inspiring others to get involved. Together, these everyday heroes demonstrate how community action can create a wilder, more resilient future.

An injured echidna (*Tachyglossus aculeatus*) receiving care from dedicated wildlife volunteers





Biodiversity education today,
thriving nature tomorrow

IMPLEMENTATION PLAN

Implementation principles
Delivering the Strategy
Implementation plan
Monitoring framework

Implementation principles

Council is committed to putting the Strategy into action, and the implementation principles guide us on ‘how’ we will implement the ‘what’.

Council leadership and innovation

Council will take evidence-based steps to protect, connect and celebrate urban biodiversity and habitat connection within Sutherland Shire. We will work collaboratively to support meaningful participation. Council will be accountable for the outcomes, have the courage to look for new ways to operate, and step up if it means making a difference and doing things better or differently.

Examples: we can establish and implement an urban biodiversity monitoring and reporting framework aligned with best-practice methodologies. We can also use planning instruments to encourage biodiversity protection, improve suburb design and ensure habitat connectivity.

Community empowerment

Our community demonstrates a strong commitment to environmental protection, and by working together we can achieve meaningful outcomes in habitat conservation and ecological connectivity. Council will expand our engagement programs and strengthen the provision of knowledge, tools and support that enable the community to take a leading role in biodiversity stewardship.

Examples: we can support biodiversity citizen science initiatives that provide real-time data for scientists and land managers. We can also offer incentives and programs to enhance habitat on private land, including the gardens for biodiversity initiative and the Greenweb program.

Advocacy

Council can play a strong advocacy role by sharing information, building partnerships and supporting community-led solutions that protect and reconnect habitat. We will continue to promote and advocate for the social, economic and environmental benefits that biodiversity brings to Sutherland Shire.

Examples: we can advocate for changes to state and federal planning frameworks and legislation to better protect and enhance marine, freshwater and terrestrial biodiversity, as well as improve habitat connection across the landscape.

Partnerships

Achieving habitat connectivity and effective species protection requires coordinated action across all levels of government, industry, research institutions and the wider community. Council will strengthen strategic partnerships to promote collaboration, experimentation and innovation that supports new approaches and delivers improved ecological outcomes for people and nature.

Examples: partnerships with organisations like Georges Riverkeeper and the Sydney Coastal Councils Group also offer opportunities to reduce litter and pollution, and improve the health of our waterways. We can work with multiple partners to control invasive species and restore local habitats.

Delivering the Strategy

The five stages of delivering this Strategy (Figure 14) include:

Integration

This Strategy will integrate and align with our 4-year Delivery Program and annual Operational Plans, supporting our delivery of Sutherland Shire’s Community Plan Towards 2035.

Implementation

The Strategy will be implemented through the actions (Implementation Plan, page 54) for each of the key focus areas and include timeframes and responsibilities.

Council will meet the Biodiversity Strategy commitments by using our:

- 4-year Delivery Program
- annual Operational Plans
- planning instruments – the Local Strategic Planning Statement, Local Environment Plan and Development Control Plan
- Asset Management Strategy and subsequent Asset Management Plans
- Long Term Financial Plan
- collaboration, engagement and education to motivate and mobilise our community.

Evaluation

Monitoring and evaluating delivery of the strategy will be ongoing. We will use a range of methods to help us evaluate the Strategy’s achievements and impact, including establishing an urban biodiversity baseline, community satisfaction and biodiversity condition assessments.

Reporting

We will report on the delivery of this Strategy by:

- updating our reference groups, including Environment and Sustainability, Aboriginal and Torres Strait Islander, Catchment and Waterways and the Youth Advisory Group
- including community and council achievements in the Sutherland Shire Council Annual Report
- producing two-year progress reports
- producing a 4-year progress report at the conclusion of this Strategy’s implementation plan (FY2026/27 to FY2029/30).
- sharing achievements via social media and the Our Shire newsletter.

All the reporting will be made available to the community.

Resourcing

Resourcing is the fifth component that underpins each of the above four stages of delivery. Many of the actions in this Strategy will not require additional funding and will be included as part of our everyday work. However, as this Strategy is providing a bold new strategic direction for us, some actions will require additional human resourcing and project funding. Additional funding for partial and unfunded actions will be requested through our annual budget and planning process, or through seeking external resourcing, including grants and partner resourcing.

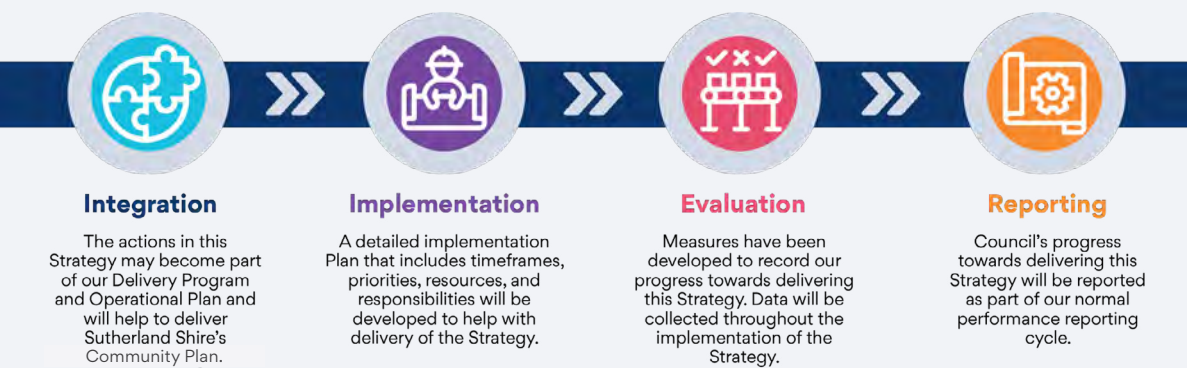


Figure 14. Delivering the strategy through the four components of integration, implementation, evaluation and reporting. All four components are underpinned by the fifth component, resourcing.

Implementation plan

The actions identified in the Implementation Plan represent additional commitments that strengthen and expand Council's existing biodiversity efforts. They are designed to build upon established operational programs, including Bushcare, Greenweb, Community nursery services, invasive species management, and litter and dumped rubbish collection.

#	Action Detail	Council's Role D - deliver A - advocate P - partner	Lead Team	Collaboration Team/s	Funded*	Timeframe for delivery			
						2026/27	2027/28	2028/29	2029/30
KEY AREA	PROTECT								
PRIORITY 1	Habitat resilience								
OBJECTIVE	To enhance habitat resilience by establishing an urban biodiversity baseline, improving ecosystem condition, and reducing fragmentation and disturbance.								
1.1	Develop an urban ecological baseline, monitoring and assessment framework.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Corporate Planning and Performance	Partial	✓	✓		
1.2	Review and update Council's biodiversity spatial datasets to identify habitat connectivity gaps and incorporate field-validated ecological resilience assessments.	D	Urban Futures	Information Management and Technology Environment and Regulation Parks and Natural Areas Assets Strategy and Delivery Development Assessment	Yes		✓	✓	✓
1.3	Review and update Council's planning framework to align content and mapping for threatened species and significant ecological communities with this Strategy.	D	Urban Futures	Information Management and Technology Environment and Regulation Parks and Natural Areas Development Assessment	Yes			✓	✓
1.4	Ensure biodiversity protection and habitat connectivity objectives are integrated into the preparation and renewal of key Council strategies and management plans, including open space, sports and Plans of Management under the Local Government Act 1993.	D	Urban Futures	Parks and Natural Areas Environment and Regulation Assets Strategy and Delivery	Yes		✓	✓	✓
1.5	Advocate for stronger cross-tenure collaboration among governments, infrastructure owners and landholders to improve biodiversity protection, restoration, and ecological connectivity.	A	Urban Futures	Parks and Natural Areas Environment and Regulation Urban Futures	Yes		✓	✓	✓

#	Action Detail	Council's Role D - deliver A - advocate P - partner	Lead Team	Collaboration Team/s	Funded*	Timeframe for delivery			
						2026/27	2027/28	2028/29	2029/30
1.6	Pursue scientific, innovative and collaborative research partnerships to enhance biodiversity knowledge, strengthen monitoring, and identify emerging threats early, including invasive species, diseases, climate impacts and urban stressors.	P	Urban Futures	Environment and Regulation Parks and Natural Areas Finance, Property and Performance Information Management and Technology	Yes		✓	✓	✓
1.7	Support regional advocacy initiatives that advance stronger policy, planning and management protections for marine and estuarine ecosystems, safeguarding seagrass, mangroves, reefs, coastal habitats and important intertidal bird foraging and roosting areas.	A	Urban Futures	Environment and Regulation Parks and Natural Areas Urban Futures	Yes		✓	✓	
PRIORITY 2 OBJECTIVE Species recovery To work collaboratively with partners to deliver targeted, timely interventions that strengthen the recovery and long-term survival of priority species.									
2.1	Implement the Koala Management Plan and Grey-headed Flying-fox camp plans.	D	Environment and Regulation	Parks and Natural Areas Urban Futures	Yes	✓	✓	✓	
2.2	Coordinate with state government and partners to deliver threatened species and habitat enhancement programs across Council-managed land.	D	Parks and Natural Areas	Urban Futures Environment and Regulation	Yes		✓	✓	✓
2.3	Ensure Council and contractors operations exclusively use first-generation rodenticides, reducing secondary poisoning risks for predatory birds and other native predators.	D	Parks and Natural Areas	Environment and Regulation Urban Futures	Yes	✓	✓		
2.4	Review emerging recommendations from the <i>Companion Animals Act 1998</i> (NSW) review and inquiry, determine their enforcement and biodiversity implications, and adjust our policies to meet future cat-management standards.	D	Environment and Regulation	Environment and Regulation Parks and Natural Areas Urban Futures	Yes		✓	✓	
2.5	Conserve, restore and monitor migratory shorebird habitat within our legislative control and responsibility.	P	Parks and Natural Areas	Urban Futures Environment and Regulation	Yes		✓	✓	✓
2.6	Advocate for best-practice crane operation and building design approaches that support Eastern Osprey roosting and nesting while enabling development outcomes.	D	Environment and Regulation	Parks and Natural Areas Urban Futures	Yes			✓	✓
2.7	Develop a nest-box and habitat hollow-creation Guideline for Council and community initiatives.	D	Urban Futures	Parks and Natural Areas Environment and Regulation	Yes		✓	✓	
2.8	Pilot a nest-box and hollow-creation program on Council-managed land in accordance with the Guideline's recommendations.	D	Parks and Natural Areas	Urban Futures Environment and Regulation	No			✓	✓

#	Action Detail	Council's Role D - deliver A - advocate P - partner	Lead Team	Collaboration Team/s	Funded*	Timeframe for delivery			
						2026/27	2027/28	2028/29	2029/30
KEY AREA CONNECT									
PRIORITY 3	Lead with nature								
OBJECTIVE	To ensure planning and organisational decisions consider urban biodiversity and habitat, enhancing ecological function and people's connection to nature.								
3.1	Review the Greenweb program to determine its effectiveness and propose updates that ensure alignment with this Strategy.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Information Management and Technology	Partial	✓	✓		
3.2	Implement the recommendations from the Greenweb program review.	D	Environment and Regulation	Urban Futures Parks and Natural Areas Information Management and Technology	Partial				✓
3.3	Develop a 'Lead with Nature' Position Paper to establish a strategic framework for embedding biodiversity protection, habitat connectivity and blue-green corridor principles within Council planning controls, public domain design standards and infrastructure planning, informed by the biodiversity mitigation hierarchy, legislation and the NSW Biodiversity in Place framework.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Development Assessment	Yes	✓	✓		
3.4	Implement recommendations from the 'Lead with Nature' position paper, including updates to planning controls, public domain design standards and infrastructure planning processes.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Development Assessment	Yes		✓	✓	✓
3.5	Complete a Site Development Plan to determine future functionality and service needs for our community nursery, incorporating projected growth and strategic alignment.	D	Assets Strategy and Delivery	Parks and Natural Areas Environment and Regulation Urban Futures	Yes	✓	✓		
3.6	Implement recommendations from our community nursery Site Development Plan.	D	Assets Strategy and Delivery	Parks and Natural Areas Environment and Regulation Urban Futures	No			✓	✓
3.7	Evaluate the potential benefits, risks and strategic implications of nature repair and natural capital accounting methods to guide Council's approach to biodiversity measurement, valuation and investment.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Assets Strategy and Delivery People and Culture Finance, Property and Performance	Yes			✓	✓

#	Action Detail	Council's Role D - deliver A - advocate P - partner	Lead Team	Collaboration Team/s	Funded*	Timeframe for delivery			
						2026/27	2027/28	2028/29	2029/30
KEY AREA	CELEBRATE								
PRIORITY 4 OBJECTIVE	Connection to Country To work in genuine partnership with Aboriginal organisations, Elders and knowledge-holders with a commitment to uphold self-determination through co-design and shared governance, ensuring cultural priorities lead Connection to Country outcomes.								
4.1	Strengthen the Aboriginal and Torres Strait Islander Reference Group Terms of Reference to support governance and guidance for Connection to Country actions in this Strategy.	D	Community Impact and Innovation	Environment and Regulation Urban Futures Parks and Natural Areas	Yes	✓			
4.2	Establish an agreed process where Aboriginal organisations, Elders and knowledge holders are invited to lead or co-lead the design, implementation and evaluation of biodiversity initiatives.	P	Urban Futures	Environment and Regulation Parks and Natural Areas Community Impact and Innovation	Yes		✓	✓	
4.3	Deliver an Aboriginal biodiversity work experience and traineeship program that empowers Aboriginal and Torres Strait Islander people through cultural learning, hands-on conservation experience and career development opportunities.	D	People and Culture	Environment and Regulation Parks and Natural Areas	No		✓	✓	
4.4	Develop protocols for incorporating cultural stories, ecological practices, seasonal knowledge and on-Country guidance into planning, restoration, procurement and land-management procedures.	P	Urban Futures	Environment and Regulation Parks and Natural Areas Community Impact and Innovation	Partial		✓	✓	
4.5	Support Aboriginal-led, on-Country learning experiences that embed cultural knowledge and strengthen Council and community action to protect biodiversity, conserve habitat and advance Caring for Country outcomes.	P	Urban Futures	Environment and Regulation Parks and Natural Areas Community Impact and Innovation	Yes			✓	✓
PRIORITY 5 OBJECTIVE	Biodiversity stewardship To strengthen community biodiversity stewardship, work with regional partners, and provide education and behaviour-change initiatives that inspire lifelong care for the natural environment.								
5.1	Develop and pilot a Gardens for Biodiversity program to empower residents and organisations with the knowledge, resources, guidance, and incentives needed to restore and improve habitat on private land.	D	Urban Futures	Environment and Regulation Parks and Natural Areas	Partial			✓	✓
5.2	Implement a community education and behaviour change program that raises awareness of local threatened species, citizen science opportunities, responsible pet ownership and sustainable firewood usage.	D	Urban Futures	Environment and Regulation Parks and Natural Areas Customer and Engagement Community Impact and Innovation	Yes		✓	✓	✓
5.3	Collaborate with the community to nominate local native mascot species that showcase local urban biodiversity and promote learning and biodiversity stewardship.	P	Urban Futures	Environment and Regulation Parks and Natural Areas Customer and Engagement	Yes		✓	✓	

#	Action Detail	Council's Role D - deliver A - advocate P - partner	Lead Team	Collaboration Team/s	Funded*	Timeframe for delivery			
						2026/27	2027/28	2028/29	2029/30
5.4	Promote and celebrate community-led biodiversity conservation by supporting local champions, schools, volunteers and organisations to participate in habitat restoration, environmental stewardship and citizen science initiatives.	D	Parks and Natural Areas	Urban Futures Environment and Regulation	Yes		✓		✓
5.5	Collaborate with wildlife rescue organisations and local veterinarians to identify how we can better support rescuers, reduce barriers and better deliver programs.	P	Urban Futures	Parks and Natural Areas Environment and Regulation Community Impact and Innovation	Yes			✓	✓
5.6	Work with partners to co-deliver community programs that change littering behaviours and reduce litter entering waterways, improving aquatic ecosystem health.	D	Waste and Recycling	Environment and Regulation Assets Strategy and Delivery Urban Futures Parks and Natural Areas Customer and Engagement	Yes		✓	✓	✓
5.7	Build organisational capability in biodiversity planning and management by delivering targeted training and professional development in development assessment, spatial land management, NARCLIM, climate adaptation, Aboriginal cultural land management, ecological-resilience assessment, and biodiversity monitoring and reporting.	D	Urban Futures	People and Culture Environment and Regulation Parks and Natural Areas Assets Strategy and Delivery Development Assessment	Partial		✓	✓	✓

*Funded:

Yes – Resourcing and funding available.

Partial – A component of resourcing and funding is available.

No – Resourcing and funding is not currently available.

Additional funding for the partial and unfunded actions will be requested through Council's annual budget and planning process, or through seeking of external resourcing, including grants and partner resourcing.

Monitoring framework

How we will measure the success of the Protect, Connect and Celebrate key areas.

Indicator	Measure/ Metric	Baseline FY26/27	Target trend by 2050	Responsibility	Council level of influence
PRIORITY 1 Habitat resilience					
Improve habitat condition on Council-managed land	% of assessed habitat showing stable or improved condition rating	Establish baseline	Increase	Council	Control
Improve habitat connectivity across the urban landscape	Number of corridors and ecological interfaces showing stable or improved condition rating	Establish baseline	Increase	Council	Control
PRIORITY 2 Species recovery					
Priority species protected	Number of invasive species programs	13	Maintain	Council	Influence
	Number of bush regeneration projects	Establish baseline	Maintain	Council	Control
Council leading by example	Number of best-practice biodiversity initiatives delivered by Council	N/A	3 per year	Council	Control
PRIORITY 3 Lead with nature					
Biodiversity protection embedded into our strategic planning frameworks	% of our strategic planning instruments updated	N/A	100%	Council	Control
Improve habitat condition on private land	Areas (ha) of habitat supported through the Greenweb program	Establish baseline	Increase	Council	Influence
Production of indigenous plants for local habitat restoration projects	Number of indigenous plants grown at our native nursery for our habitat restoration projects	Establish baseline	Maintain	Council	Control
PRIORITY 4 Connection to Country					
Participation in Connection to Country biodiversity initiatives with Aboriginal communities	Number of local biodiversity initiatives developed in partnership with Aboriginal organizations, Elders and knowledge holders or led by Aboriginal organisations	N/A	Increase	Council, Community	Influence
PRIORITY 5 Biodiversity Stewardship					
Enable and empower community-led biodiversity stewardship	Number of Bushcare educational events held	10	Maintain	Council	Control
	Number of local biodiversity stewards showcased	Obtain baseline	3 per year	Council	Control

Partners we will work with...

Aboriginal Land Councils, Ausgrid, Australian and NSW government Departments of Climate Change, Energy, the Environment and Water, Australian Nuclear Science and Technology Organisation, BirdLife Australia, Georges Riverkeeper, Greater Sydney Landcare, Greater Sydney Vertebrate Pest Animal Committee, local and regional environmental groups and education centres, Local Government NSW, NSW Department of Planning, Housing and Infrastructure, NSW Environment Protection Authority, Resilient Sydney, Southern Sydney Regional Organisation of Councils, Sydney Basin Koala Network, Sydney Coastal Councils Group, Sydney Weed Network, Transport for NSW and others as required.

Council's level of influence

While Council has a custodial role in initiating, preparing and maintaining the Biodiversity Strategy, it is not wholly responsible for the strategy's implementation. Issues identified in this strategy such as landscape connectivity, fire and flood management are complex and sometimes beyond Council's direct control and area of responsibility or influence. Achieving our desired future requires collaboration and partnerships.

Our whole community, including government agencies, businesses, not for-profits and residents, plays an important role in delivering this strategy. Council's role is identified in Figure 15 and is referenced in the monitoring framework.

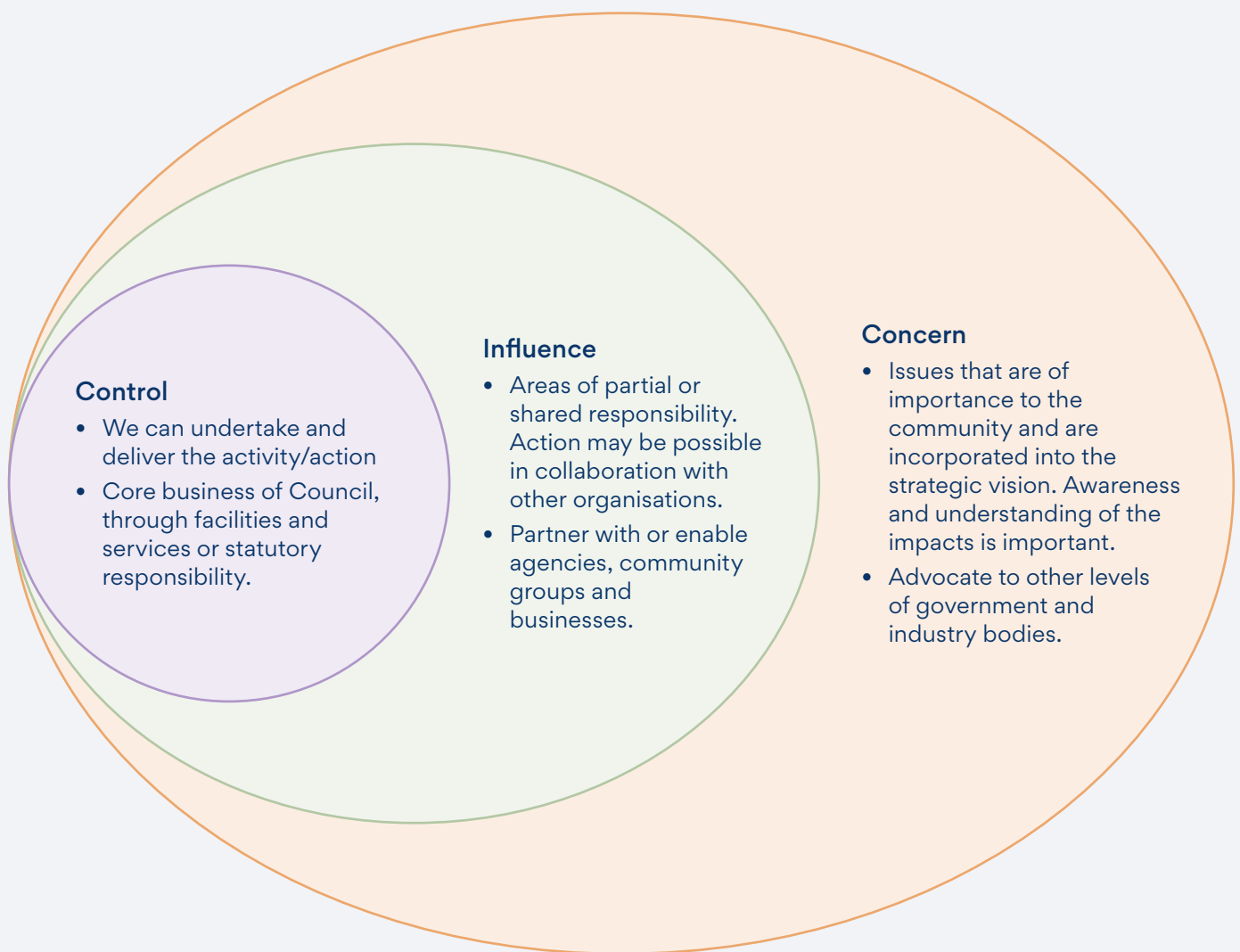


Figure 15. Council's level of influence, as referenced in the monitoring framework.



Koala (*Phascolarctos cinereus*)
and Brown-headed Honeyeater
(*Melithreptus brevirostris*)

SUPPORTING INFORMATION

Sutherland Shire threatened species
Invasive species
Glossary
Endnotes

Appendix 1: Sutherland Shire threatened species

Fauna and flora species recorded in the Sutherland Shire Local Government Area and their conservation status. NSW status refers to listings under the *Biodiversity Conservation Act 2016* (NSW). EPBC status refers to threatened and migratory listings under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).¹³

Common Name	Scientific Name	NSW Status	EPBC Status
Amphibian			
Wallum Froglet	<i>Crinia tinnula</i>	Vulnerable	-
Giant Burrowing Frog	<i>Heleioporus australiacus</i>	Vulnerable	-
Green and Golden Bell Frog	<i>Litoria aurea</i>	Endangered	Vulnerable
Red-Crowned Toadlet	<i>Pseudophryne australis</i>	Vulnerable	-
Bird			
Common Sandpiper	<i>Actitis hypoleucos</i>	-	Migratory species
Common Noddy	<i>Anous stolidus</i>	-	Migratory species
Regent Honeyeater	<i>Anthochaera phrygia</i>	Critically endangered	Critically endangered
Fork-tailed Swift	<i>Apus pacificus</i>	-	Migratory species
Flesh-footed Shearwater	<i>Ardenna carneipes</i>	Vulnerable	Migratory species
Sooty Shearwater	<i>Ardenna grisea</i>	-	Migratory species
Wedge-tailed Shearwater	<i>Ardenna pacifica</i>	-	Migratory species
Short-tailed Shearwater	<i>Ardenna tenuirostris</i>	-	Migratory species
Ruddy Turnstone	<i>Arenaria interpres</i>	Vulnerable	Vulnerable, Migratory species
Dusky Woodswallow	<i>Artamus cyanopterus cyanopterus</i>	Vulnerable	-
Australasian Bittern	<i>Botaurus poiciloptilus</i>	Endangered	Endangered
Bush Stone-curlew	<i>Burhinus grallarius</i>	Endangered	-

Common Name	Scientific Name	NSW Status	EPBC Status
Striated Fieldwren	<i>Calamanthus fuliginosus</i>	Endangered	-
Sharp-tailed Sandpiper	<i>Calidris acuminata</i>	Vulnerable	Vulnerable, Migratory species
Sanderling	<i>Calidris alba</i>	Vulnerable	Migratory species
Red Knot	<i>Calidris canutus</i>	Vulnerable	Endangered, Migratory species
Broad-billed Sandpiper	<i>Calidris falcinellus</i>	Vulnerable	Migratory species
Curlew Sandpiper	<i>Calidris ferruginea</i>	Critically endangered	Critically endangered, Migratory species
Pectoral Sandpiper	<i>Calidris melanotos</i>	-	Migratory species
Red-necked Stint	<i>Calidris ruficollis</i>	-	Migratory species
Long-toed Stint	<i>Calidris subminuta</i>	-	Migratory species
Great Knot	<i>Calidris tenuirostris</i>	Vulnerable	Vulnerable, Migratory species
Gang-gang Cockatoo	<i>Callocephalon fimbriatum</i>	Endangered	Endangered
Streaked Shearwater	<i>Calonectris leucomelas</i>	-	Migratory species
South-eastern Glossy Black-Cockatoo	<i>Calyptorhynchus lathami lathami</i>	Vulnerable	Vulnerable
Greater Sand-plover	<i>Charadrius leschenaultii</i>	Vulnerable	Vulnerable, Migratory species
Lesser Sand-plover	<i>Charadrius mongolus</i>	Vulnerable	Endangered, Migratory species
Oriental Plover	<i>Charadrius veredus</i>	-	Migratory species
White-winged Black Tern	<i>Chlidonias leucopterus</i>	-	Migratory species
Spotted Harrier	<i>Circus assimilis</i>	Vulnerable	-
Brown Treecreeper (eastern subspecies)	<i>Climacteris picumnus victoriae</i>	Vulnerable	Vulnerable
Oriental Cuckoo	<i>Cuculus optatus</i>	-	Migratory species
Varied Sittella	<i>Daphoenositta chrysoptera</i>	Vulnerable	-
Eastern Bristlebird	<i>Dasyornis brachypterus</i>	Endangered	Endangered
Wandering Albatross	<i>Diomedea exulans</i>	Endangered	Vulnerable, Migratory species

Common Name	Scientific Name	NSW Status	EPBC Status
White-fronted Chat	<i>Epthianura albifrons</i>	Endangered*	-
Beach Stone-curlew	<i>Esacus magnirostris</i>	Critically endangered	-
Black Falcon	<i>Falco subniger</i>	Vulnerable	-
Lesser Frigatebird	<i>Fregata ariel</i>	-	Migratory species
Latham's Snipe	<i>Gallinago hardwickii</i>	Vulnerable	Vulnerable, Migratory species
Gull-billed Tern	<i>Gelochelidon nilotica</i>	-	Migratory species
White Tern	<i>Gygis alba</i>	Vulnerable	-
Sooty Oystercatcher	<i>Haematopus fuliginosus</i>	Vulnerable	-
Pied Oystercatcher	<i>Haematopus longirostris</i>	Endangered	-
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	Vulnerable	-
Blue Petrel	<i>Halobaena caerulea</i>	-	Vulnerable
Little Eagle	<i>Hieraaetus morphnoides</i>	Vulnerable	-
White-throated Needletail	<i>Hirundapus caudacutus</i>	Vulnerable	Migratory species
Caspian Tern	<i>Hydroprogne caspia</i>	-	Migratory species
Black Bittern	<i>Ixobrychus flavicollis</i>	Vulnerable	-
Swift Parrot	<i>Lathamus discolor</i>	Endangered	Critically endangered
Bar-tailed Godwit	<i>Limosa lapponica</i>	-	Migratory species
Alaskan Bar-tailed Godwit	<i>Limosa lapponica baueri</i>	Endangered	Vulnerable
Black-tailed Godwit	<i>Limosa limosa</i>	Endangered	Endangered, Migratory species
Pink Cockatoo	<i>Lophochroa leadbeateri</i>	Vulnerable	Endangered
Square-tailed Kite	<i>Lophoictinia isura</i>	Vulnerable	-
Southern Giant Petrel	<i>Macronectes giganteus</i>	Endangered	Endangered, Migratory species
Black-chinned Honeyeater (eastern subspecies)	<i>Melithreptus gularis gularis</i>	Vulnerable	-
Blue-winged Parrot	<i>Neophema chrysostoma</i>	Vulnerable	Vulnerable
Turquoise Parrot	<i>Neophema pulchella</i>	Vulnerable	-

*White-fronted chat population in the Sydney Metropolitan Catchment Management Area.

Common Name	Scientific Name	NSW Status	EPBC Status
Barking Owl	<i>Ninox connivens</i>	Vulnerable	-
Powerful Owl	<i>Ninox strenua</i>	Vulnerable	-
Eastern Curlew	<i>Numenius madagascariensis</i>	Critically endangered	Critically endangered, Migratory species
Little Curlew	<i>Numenius minutus</i>	-	Migratory species
Whimbrel	<i>Numenius phaeopus</i>	-	Migratory species
Wilson's Storm-Petrel	<i>Oceanites oceanicus</i>	-	Migratory species
Sooty Tern	<i>Onychoprion fuscatus</i>	Vulnerable	-
Blue-Billed Duck	<i>Oxyura australis</i>	Vulnerable	-
Eastern Osprey	<i>Pandion cristatus</i>	Vulnerable	-
Purple-crowned Lorikeet	<i>Parvipsitta porphyrocephala</i>	Vulnerable	-
Little Lorikeet	<i>Parvipsitta pusilla</i>	Vulnerable	-
Scarlet Robin	<i>Petroica boodang</i>	Vulnerable	-
Flame Robin	<i>Petroica phoenicea</i>	Vulnerable	-
Pink Robin	<i>Petroica rodinogaster</i>	Vulnerable	-
Eastern Ground Parrot	<i>Pezoporus wallicus wallicus</i>	Vulnerable	-
White-Tailed Tropicbird	<i>Phaethon lepturus</i>	-	Migratory species
Ruff	<i>Philomachus pugnax</i>	-	Migratory species
Pacific Golden Plover	<i>Pluvialis fulva</i>	-	Migratory species
Grey Plover	<i>Pluvialis squatarola</i>	Vulnerable	Vulnerable, Migratory species
Superb Parrot	<i>Polytelis swainsonii</i>	Vulnerable	Vulnerable
Gould's Petrel	<i>Pterodroma leucoptera leucoptera</i>	Vulnerable	Endangered
Black-winged Petrel	<i>Pterodroma nigripennis</i>	Vulnerable	-
Providence Petrel	<i>Pterodroma solandri</i>	Vulnerable	-
Rose-crowned Fruit-Dove	<i>Ptilinopus regina</i>	Vulnerable	-
Superb Fruit-Dove	<i>Ptilinopus superbus</i>	Vulnerable	-
Little Shearwater	<i>Puffinus assimilis</i>	Vulnerable	-

Common Name	Scientific Name	NSW Status	EPBC Status
Pilotbird	<i>Pycnoptilus floccosus</i>	Vulnerable	Vulnerable
Speckled Warbler	<i>Pyrrholaemus sagittatus</i>	Vulnerable	-
Australian Painted Snipe	<i>Rostratula australis</i>	Endangered	Endangered
Long-tailed Jaeger	<i>Stercorarius longicaudus</i>	-	Migratory species
Arctic Jaeger	<i>Stercorarius parasiticus</i>	-	Migratory species
Pomarine Jaeger	<i>Stercorarius pomarinus</i>	-	Migratory species
Common Tern	<i>Sterna hirundo</i>	-	Migratory species
Little Tern	<i>Sternula albifrons</i>	Endangered	Migratory species
Freckled Duck	<i>Stictonetta naevosa</i>	Vulnerable	-
Brown Booby	<i>Sula leucogaster</i>	-	Migratory species
Buller's Albatross	<i>Thalassarche bulleri</i>	-	Vulnerable, Migratory species
Shy Albatross	<i>Thalassarche cauta</i>	Endangered	Endangered, Migratory species
Black-browed Albatross	<i>Thalassarche melanophris</i>	Vulnerable	Vulnerable, Migratory species
Crested Tern	<i>Thalasseus bergii</i>	-	Migratory species
Eastern Hooded Dotterel	<i>Thinornis cucullatus cucullatus</i>	Critically endangered	Vulnerable
Grey-tailed Tattler	<i>Tringa brevipes</i>	-	Migratory species
Wood Sandpiper	<i>Tringa glareola</i>	-	Migratory species
Wandering Tattler	<i>Tringa incana</i>	-	Migratory species
Common Greenshank	<i>Tringa nebularia</i>	Endangered	Endangered, Migratory species
Marsh Sandpiper	<i>Tringa stagnatilis</i>	-	Migratory species
Eastern Grass Owl	<i>Tyto longimembris</i>	Vulnerable	-
Masked Owl	<i>Tyto novaehollandiae</i>	Vulnerable	-
Sooty Owl	<i>Tyto tenebricosa</i>	Vulnerable	-
Terek Sandpiper	<i>Xenus cinereus</i>	Vulnerable	Vulnerable, Migratory species

Common Name	Scientific Name	NSW Status	EPBC Status
Mammal			
New Zealand Fur-seal	<i>Arctocephalus forsteri</i>	Vulnerable	-
Australian Fur-seal	<i>Arctocephalus pusillus doriferus</i>	Vulnerable	-
Eastern Pygmy-possum	<i>Cercartetus nanus</i>	Vulnerable	-
Large-eared Pied Bat	<i>Chalinolobus dwyeri</i>	Endangered	Endangered
Spotted-tailed Quoll	<i>Dasyurus maculatus</i>	Vulnerable	Endangered
Dugong	<i>Dugong dugon</i>	Endangered	Migratory species
Southern Right Whale	<i>Eubalaena australis</i>	Endangered	Endangered, Migratory species
Eastern False Pipistrelle	<i>Falsistrellus tasmaniensis</i>	Vulnerable	-
Eastern Coastal Free-tailed Bat	<i>Micronomus norfolkensis</i>	Vulnerable	-
Little Bent-winged Bat	<i>Miniopterus australis</i>	Vulnerable	-
Large Bent-winged Bat	<i>Miniopterus orianae oceanensis</i>	Vulnerable	-
Southern Myotis	<i>Myotis macropus</i>	Vulnerable	-
Southern Greater Glider	<i>Petauroides volans</i>	Endangered	Endangered
Yellow-bellied Glider	<i>Petaurus australis</i>	Vulnerable	Vulnerable
Koala	<i>Phascolarctos cinereus</i>	Endangered	Endangered
New Holland Mouse	<i>Pseudomys novaehollandiae</i>	Vulnerable	Vulnerable
Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	Vulnerable	Vulnerable
Yellow-bellied Sheath-tail-bat	<i>Saccolaimus flaviventris</i>	Vulnerable	-
Greater Broad-nosed Bat	<i>Scoteanax rueppellii</i>	Vulnerable	-
Reptiles			
Loggerhead Turtle	<i>Caretta caretta</i>	Endangered	Endangered, Migratory species
Green Turtle	<i>Chelonia mydas</i>	Vulnerable	Vulnerable, Migratory species

Common Name	Scientific Name	NSW Status	EPBC Status
Leatherback Turtle	<i>Dermochelys coriacea</i>	Endangered	Endangered, Migratory species
Hawksbill Turtle	<i>Eretmochelys imbricata</i>	-	Vulnerable, Migratory species
Broad-headed Snake	<i>Hoplocephalus bungaroides</i>	Endangered	Endangered
Rosenberg's Goanna	<i>Varanus rosenbergi</i>	Vulnerable	-
Invertebrate			
Celtis Leaf Beetle	<i>Menippus darcy</i>	Endangered	-
Maroubra Woodland Snail	<i>Meridolum maryae</i>	Endangered	Endangered
Giant Dragonfly	<i>Petalura gigantea</i>	Endangered	-
Flora			
Acacia baueri	<i>Acacia baueri</i>	Endangered	Endangered
Bynoe's Wattle	<i>Acacia bynoeana</i>	Endangered	Vulnerable
Downy Wattle	<i>Acacia pubescens</i>	Vulnerable	Vulnerable
Sunshine Wattle	<i>Acacia terminalis</i>	Endangered	Endangered
Allocasuarina diminuta	<i>Allocasuarina diminuta</i>	Endangered	-
Thick-leaf Star-hair	<i>Astrotricha crassifolia</i>	Vulnerable	Vulnerable
Thick Lip Spider Orchid	<i>Caladenia tessellata</i>	Vulnerable	Vulnerable
Netted Bottle Brush	<i>Callistemon linearifolius</i>	Vulnerable	-
Leafless Tongue Orchid	<i>Cryptostylis hunteriana</i>	Vulnerable	Vulnerable
Buttercup Doubletail	<i>Diuris aequalis</i>	Endangered	Endangered
Epacris purpurascens	<i>Epacris purpurascens</i>	Vulnerable	-
Camfield's Stringybark	<i>Eucalyptus camfieldii</i>	Vulnerable	Vulnerable
Narrow-leaved Black Peppermint	<i>Eucalyptus nicholii</i>	Vulnerable	Vulnerable
Wallangarra White Gum	<i>Eucalyptus scoparia</i>	Endangered	Vulnerable
Sand Spurge	<i>Euphorbia psammogeton</i>	Endangered	-
Bauer's Midge Orchid	<i>Genoplesium baueri</i>	Endangered	Endangered

Common Name	Scientific Name	NSW Status	EPBC Status
Narrow-leaf Finger Fern	<i>Grammitis stenophylla</i>	Endangered	-
Hibbertia puberula	<i>Hibbertia puberula</i>	Endangered	-
Hibbertia stricta	<i>Hibbertia stricta</i>	Endangered	-
Woronora Beard-heath	<i>Leucopogon exolasius</i>	Vulnerable	Vulnerable
Rough-shelled Bush Nut	<i>Macadamia tetraphylla</i>	Vulnerable	Vulnerable
Biconvex Paperbark	<i>Melaleuca biconvexa</i>	Vulnerable	Vulnerable
Deane's Paperbark	<i>Melaleuca deanei</i>	Vulnerable	Vulnerable
Hairy Geebung	<i>Persoonia hirsuta</i>	Endangered	Endangered
Villous Mint-bush	<i>Prostanthera densa</i>	Vulnerable	Vulnerable
Prostanthera saxicola	<i>Prostanthera saxicola</i>	Endangered	-
Illawarra Greenhood	<i>Pterostylis gibbosa</i>	Endangered	Endangered
Botany Bay Bearded Orchid	<i>Pterostylis</i> sp. <i>Botany Bay</i>	Endangered	Endangered
Prickly Bush-pea	<i>Pultenaea aristata</i>	Vulnerable	Vulnerable
Scrub Turpentine	<i>Rhodamnia rubescens</i>	Critically Endangered	Critically Endangered
Coast Groundsel	<i>Senecio spathulatus</i>	Endangered	-
Magenta Lilly Pilly	<i>Syzygium paniculatum</i>	Vulnerable	Vulnerable
Black-hooded Sun Orchid	<i>Thelymitra atronitida</i>	Critically Endangered	-
Round-leafed Wilsonia	<i>Wilsonia rotundifolia</i>	Endangered	-

Appendix 2:

Invasive species

Council works with the NSW Government, Greater Sydney Vertebrate Pest Animal Committee, Sydney Weed Network and other land managers, to jointly deliver initiatives to reduce the biodiversity impacts of invasive species. These programs are adaptive and responsive to biosecurity risks, regional priorities, local surveillance findings and available resources, and are aligned with relevant federal, state and regional frameworks. Bushcare and bush regeneration programs play an important role in invasive species management across the Sutherland Shire, particularly in areas affected by

Rusa deer, while external funding opportunities, including the NSW Weed Action Program and Crown Land Improvement Fund, support local delivery of state and regional biosecurity priorities.

The list below identifies the invasive species that pose significant threats to local biodiversity and are the focus of Council-led or partnership control and management programs. These species are listed as containment priorities under the *Greater Sydney Regional Strategic Pest Animal Management Plan 2024-2028*.

Common Name	Scientific Name	Detail
Invasive fauna		
Rusa deer	<i>Rusa timorensis</i>	Feral deer, including Rusa deer, pose a significant threat to local biodiversity through grazing pressure, trampling and soil compaction. Council works with partners to deliver control programs across parks, reserves and residential areas.
European red fox	<i>Vulpes vulpes</i>	Foxes threaten native fauna through predation. Council participates in coordinated control programs across Crown land, including golf courses, to reduce predation pressures, particularly during breeding seasons.
Cane toad	<i>Rhinella marina</i>	Cane toads threaten native biodiversity through the production of bufotoxins, which are highly toxic to predators such as quolls, goannas, snakes and birds, causing widespread population declines. Council works with partners to identify and eradicate localised cane toad outbreaks.
Red-eared slider turtle	<i>Trachemys scripta elegans</i>	Red-eared slider turtles are highly adaptable and invasive, outcompeting native species for food, basking sites and nesting habitat, which can lead to declines in native turtle populations and other aquatic wildlife. It is an alert species for the Greater Sydney region, and Council implements an early detection and rapid-response programs.

Common Name	Scientific Name	Detail
European rabbit	<i>Oryctolagus cuniculus</i>	The European rabbit's intense grazing habits prevent the regeneration of native plants, leading to plant extinctions and reduced biodiversity. Council works with partners to deliver control programs across parks, reserves, and golf courses.
Indian myna	<i>Acridotheres tristis</i>	Indian mynas are highly territorial and aggressive birds that can displace native bird species from nesting and foraging habitats. Council participates in proactive trapping programs.
Invasive flora		
Aquatic weeds	<i>Various</i>	Many aquatic weeds form dense mats that block sunlight and reduce oxygen levels, resulting in stagnant water, altered water flows and reduced habitat quality. Council participates in priority aquatic weed surveillance, control, mapping and monitoring program.
Terrestrial weeds	<i>Various</i>	Terrestrial weed invasions change the natural diversity and balance of local ecological communities by competing with native plants for space, nutrients and sunlight. Council participates in priority weed surveillance, control, mapping and monitoring program.
Mexican feather grass	<i>Nassella tenuissima</i>	Mexican feather grass is a highly invasive tussock that is unpalatable and invades pasture, native grasslands and woodlands. It is prohibited matter in NSW and Council participates in prevention and rapid-response programs.
Sea Spurge	<i>Euphorbia paralias</i>	Sea Spurge rapidly colonises coastal dunes, outcompeting native plants and reducing nesting and foraging habitat for wildlife. It is identified as a regional eradication-priority weed and Council's management is focused on locating infestations and rapid response.
Boneseed	<i>Chrysanthemoides monilifera subsp. monilifera</i>	Boneseed is a small shrub that is an aggressive invader of native bushland. Boneseed is a state eradication-priority weed and Council's management is focused on locating infestations and rapid response.
Priority weeds on non-Council land	<i>Various</i>	Council participates in partnership inspection programs to identify and control State and Greater Sydney weed priorities located on non-Council land including private property and plant retailers.

Table 4. Invasive species that pose significant threats to local biodiversity.

Appendix 3:

Glossary

TERM	DEFINITION
Asset protection zone	A managed buffer located near development areas. Rather than being fully cleared, they are deliberately maintained landscapes that provide separation, protection and ecological function. These buffers often occur at ecological interfaces, where natural and developed environments meet.
Biodiversity	All living things (plants, animals, insects, birds, fungi and tiny organisms, as well as the natural places they live in). Biodiversity also includes the variety between species, and across different habitats.
Biodiversity in Place	A NSW Government framework that provides practical guidance for bringing nature back into cities, towns and suburbs by integrating ecology-rich planting into streets, backyards, public spaces, rooftops and infrastructure corridors.
Biosecurity	The protection of people, the environment and the economy from the harmful impacts of pests, diseases and weeds.
Bush regeneration	The process of restoring bushland to a healthier, more natural condition by removing invasive weeds and allowing native plants to re-establish naturally.
Bushcare	Community-based volunteer programs that work to protect and restore local bushland by removing weeds, supporting natural regeneration, planting native species where needed and improving habitat for wildlife.
Bushland	A general term in Australia for natural vegetation, covering any kind of habitat from open, shrubby country with scattered trees, to tall, closed forests. Generally, uncultivated land characterised by native vegetation.
Caring for Country	The holistic, Aboriginal-led practice of managing, protecting and nurturing land, water, sky and culture. It is driven by a deep, reciprocal and intergenerational obligation to the environment.
China–Australia Migratory Bird Agreement (CAMBA)	A bilateral treaty signed in 1986 to protect migratory bird species that travel between Australia and China. It requires both countries to conserve listed species and their habitats, particularly wetlands, and to cooperate on research and conservation efforts.
Citizen science	Scientific research that is conducted by members of the public in collaboration with scientists.
City Biodiversity Index	A self-assessment tool that can be used to quantify how well a city is protecting and enhancing local biodiversity. It includes 28 indicators that build a clear picture of natural assets, set priorities and improve urban biodiversity outcomes.
Core habitat	Places of high conservation value that are protected to maintain healthy ecosystems, native species and natural processes. They typically contain the best-quality habitat and act as reference points for ecological integrity.

TERM	DEFINITION
Corridor	A connected strip of habitat or bushland that allows wildlife to move safely between larger bushland or conservation areas.
Ecological condition	A measure of how healthy and natural a local ecosystem is, based on how intact its vegetation, habitat structure and ecological processes remain.
Ecological connectivity	The extent to which landscapes allow species, water, nutrients and ecological processes to move across habitats. High connectivity is critical to reducing fragmentation and increasing resilience.
Ecological function	The natural processes and systems that enable ecosystems to operate and sustain life.
Ecological integrity	The wholeness, functioning and natural condition of an ecosystem, including the diversity of species, the strength of vegetation, the health of ecological processes and the system's capacity for long-term resilience.
Ecological interfaces	The in-between spaces where urban and natural systems connect. These areas are often ecological pressure points, and are the first places to show impacts on biodiversity, ecological condition and community resilience.
Ecological or ecosystem resilience	The ability of an ecosystem to withstand disturbance (such as fire, flooding, pollution or climate impacts), recover its essential functions, and adapt over time.
Ecosystem	Communities of organisms interacting with each other and with their physical environment.
Ecosystem services	The benefits that people obtain from nature, including provisioning services like food and freshwater; regulating services such as climate regulation, water filtration and erosion control; cultural services like recreation and aesthetic enjoyment; and supporting services such as nutrient cycling and soil formation.
Fauna	All the animal life found within a particular area. This includes mammals, birds, reptiles, amphibians, fish and invertebrates.
Fire regime	The long-term pattern of fire within a landscape, including how often, their intensity, seasonality and size of areas burned.
First-generation rodenticides	Anticoagulant poisons used to control rodent populations that generally pose a lower risk of secondary poisoning to wildlife compared with second-generation rodenticides.
Flora	All plant life found within a particular area, including trees, shrubs, grasses, groundcovers, ferns, algae and aquatic plants.
Fragmentation	The process in which larger natural habitats are broken into smaller, isolated patches due to clearing, development, infrastructure or changes in land use.
Greenweb program	A Council initiative that helps property owners protect and restore bushland to support native biodiversity. The program promotes activities such as weed removal, habitat restoration and native species planting to maintain healthy habitat areas and wildlife corridors.
Habitat	The natural environment in which a plant or animal lives. This includes the physical features, vegetation, food sources, shelter and other conditions it needs to survive and reproduce.
Hollow	A natural basin that develops in the trunk or branches of trees and provides essential shelter, nesting and breeding sites for many native animals.

TERM	DEFINITION
Hollow-dependent species	Native fauna that rely on tree hollows for nesting, shelter or breeding.
Hydrological function	The natural processes that regulate the movement, storage and quality of water within a landscape or ecosystem. This includes infiltration, groundwater recharge, surface run-off, flood attenuation and evapotranspiration, which together influence water availability, ecosystem health, and resilience to droughts and floods.
Integrated land management	A coordinated, catchment-wide approach to managing land and habitats. It brings together multiple stakeholders to balance social, environmental and economic outcomes.
Intertidal	The coastal zone between the high-tide and low-tide marks. These areas are exposed to air at low tide and mostly submerged at high tide. This zone is home to specialised plants and animals that have adapted to these fluctuating conditions.
Invasive species	Any flora or fauna that cause ecological, economic or social harm by outcompeting native species, changing habitats, disrupting ecosystem processes or spreading disease. They usually spread very quickly because they lack natural predators or controls, allowing them to establish rapidly and dominate landscapes.
Invasive Species and Wildlife Protection Area Policy	This Policy aims to minimise the impacts of invasive species and companion animals in areas of high conservation value. It applies to all parks and natural areas under Council's control and addresses risks to biodiversity, biosecurity, environmental values, public health, and the local economy.
Japan–Australia Migratory Bird Agreement (JAMBA)	A bilateral treaty signed in 1974 to protect migratory bird species that move between Australia and Japan. It commits both countries to conserve listed species and their habitats, particularly wetlands, and to cooperate on research, monitoring and conservation measures.
Landscape	The broad, interconnected area made up of different landforms, habitats and land uses. This includes bushland, waterways and coastal zone or urban environments that function together as one ecological system.
Local provenance	Seeds or plants sourced from local genetic stock to maintain adaptation and ecological integrity.
Microclimate	The localised set of climate conditions (temperature, humidity, wind, sunlight and moisture) that occur in a small, specific area and differ from the surrounding broader climate.
Migratory bird	A bird that travels seasonally between different regions or countries to access more desirable breeding, feeding or resting habitats. These movements often span thousands of kilometres and follow well-established flightpaths across the globe.
Mitigation hierarchy	The mitigation hierarchy is a decision framework that directs how environmental impacts must be managed. The approach ensures that high-value ecosystems are protected wherever possible and that unavoidable impacts are transparently and responsibly managed.
Natural Capital Accounting	A framework for measuring and reporting the extent, condition and value of natural assets such as forests, wetlands, water, soils and biodiversity. It integrates environmental data with economic accounting systems to track changes in ecosystem condition and services over time, supporting evidence-based planning, policy and investment decisions.

TERM	DEFINITION
Natural capital	Natural capital is the stock of natural assets (soils, water, air, geology, oceans, plants and animals) that provide benefits to people and underpin the economy, wellbeing and environmental health.
Natural regeneration	The process in which native vegetation recovers and re-establishes itself naturally through existing seed bank or other process without the need for planting or direct seeding. It is the most effective and ecologically sound way to restore bushland as it preserves local genetics and supports diverse plant communities.
Nature-based solutions	Actions that protect, restore or sustainably manage natural or modified ecosystems in ways that address societal challenges. Examples include restoring coastal wetlands to buffer storm impacts, expanding urban tree canopy to cool neighbourhoods, and rehabilitating rivers or bushland to improve water quality and habitat.
Nature-positive	Actions and outcomes that halt and reverse biodiversity loss, leading to a measurable improvement in health, abundance, diversity and resilience of species and ecosystems.
Nature Repair Act 2023 (Cth)	Australian legislation that established the Nature Repair Market, providing a legal framework for voluntary biodiversity restoration projects and the creation and trading of biodiversity certificates.
Nature Repair Market	Australia's first national, voluntary market for biodiversity restoration, enabling landholders to undertake approved nature repair projects and earn tradable biodiversity certificates for actions that enhance or protect native species and ecosystems.
Nature-positive design	An approach to enhance biodiversity and ecosystem health through intentional design practices, ensuring that development contributes positively to the natural environment.
Nest box	An enclosure designed for native wildlife to nest, roost or shelter. They mimic the characteristics of hollows and are installed in areas where natural hollows are scarce, helping to conserve biodiversity and provide essential habitat for those species.
Pollinator	Pollinators are animals, including bees, butterflies, moths, flies, beetles, birds and bats, that move pollen between flowers so plants can reproduce and form seeds and fruit. They are critical to healthy ecosystems and secure food production.
Propagation	The process of making new plants from seeds, cuttings, division or other plant material.
Ratepayer voucher program	Ratepayers can receive two free native plant seedlings each year from our Community Nursery to help improve biodiversity in local gardens and balconies.
Remnant vegetation	Patches of native plants and ecosystems that have survived past land clearing or disturbance. These areas are often small and fragmented but are important because they preserve original biodiversity, habitat and ecological processes.
Riparian	The land and vegetation located alongside rivers, creeks, streams, wetlands and other waterways. Essentially, the transition zone between terrestrial and aquatic environments.
Sediment control	Measures that prevent soil and sediment from leaving a site during construction or land-disturbing activities. These practices minimise erosion, protect waterways from turbidity and pollution, and help maintain downstream water quality and ecological health.

TERM	DEFINITION
Seed collection	The careful harvesting of mature seeds from local native plant species to support restoration, revegetation and conservation projects.
Shared Environmental Risk Assessment (SERA)	A circular tool used to identify, visualise and prioritise environmental risks by assessing key categories according to their condition and resilience. The radial layout highlights vulnerabilities, connections between risks, and priority areas for action.
Threatened ecological community	A plant community listed as vulnerable, endangered, or critically endangered under NSW or Australian law.
Threatened species	A plant or animal that has been identified as being at risk of extinction due to a variety of factors.
Urban green spaces	A network of modified urban areas including streets, neighbourhoods, parks, sports fields, private gardens and other everyday places. These are highly engineered and human-dominated, and play a crucial role in sustaining life within urban environments.
Water retention	The capture and storage of stormwater within a site through features such as bioretention systems, swales, rain gardens, wetlands and detention basins. Water retention reduces run-off, improves water quality, supports groundwater recharge and enhances landscape resilience during dry periods.
Water Sensitive Urban Design	An approach to planning and designing urban areas that aims to reduce run-off, improve water quality and integrate water into the landscape through features like rain gardens, swales, wetlands, permeable pavements and water-harvesting systems.
Zoonotic risks	Diseases that naturally transmit from animals to humans, either directly (through contact, bites or bodily fluids) or indirectly (via vectors such as mosquitoes or contaminated food or water).

Appendix 4:

Endnotes

¹ City of Melbourne, Nature in the City Strategy 2017 , City of Melbourne; and Queensland Government, ‘What is biodiversity?’ , Queensland Government.	Pg 6
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³ NSW Environment and Heritage, NSW Plan for Nature , NSW Government.	Pg 9
⁴ Sutherland Shire Council, Community Plan Towards 2035 , Sutherland Shire Council.	Pg 10
⁵ International Union for Conservation of Nature, Ecosystems in the mitigation hierarchy , IUCN.	Pg 13
⁶ Local Government Act 1993 (NSW) , Chapter 3, clause 8A.	Pg 15
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⁸ Sutherland Shire Council, Open Space Strategy and Implementation Plan 2021 , Sutherland Shire Council.	Pg 24
⁹ Sutherland Shire Council, SSC Maps , Sutherland Shire Council.	Pg 25
¹⁰ NSW Environment and Heritage, Threatened ecological communities ; and NSW Government, NSW Biodiversity Conservation Regulation 2017 , Division 4.2.	Pg 25
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Conserving our biodiversity to achieve a
protected and connected environment



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SUTHERLANDSHIRE

