Australian Capital Territory

Nature Conservation (Draft Nature Conservation Strategy) Public Consultation Notice 2026

Notifiable instrument NI2026–74

made under the

Nature Conservation Act 2014, s 51 (Draft nature conservation strategy—public consultation)

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1 Name of instrument

This instrument is the *Nature Conservation (Draft Nature Conservation Strategy) Public Consultation Notice 2026*.

2 Commencement

This instrument commences on the day after its notification day.

3 Draft Nature Conservation Strategy

The draft Nature Conservation Strategy (the ***draft strategy***) is at schedule 1.

4 Public consultation

(1) Anyone may give a written submission to the Conservator for Flora and Fauna (the ***conservator***) about the draft strategy. Submissions are to be sent to:

Conservator of Flora and Fauna
c/o Senior Director, Office of Nature Conservation
City and Environment Directorate
GPO Box 158, CANBERRA ACT 2601
Email: officeofnatureconservation@act.gov.au

(2) The period commencing 13 February 2026 and ending on 27 March 2026 is the ***public consultation period***.

(3) Submissions may be given to the conservator only during the public consultation period for the draft strategy.

Bren Burkevics
Conservator of Flora and Fauna
12 February 2026

Schedule 1 Draft Nature Conservation Strategy

(see s 3)

ACT Government

ACT Nature Conservation Strategy

2026–2036

Building a Network for Nature

City and Environment Directorate

Acknowledgement of Country

Dhawura nguna ngurumbangu gunanggu Ngunnawal.
Nginggada dindi dhawura Ngunnawalbun yindjumaralidjinyin.
Mura bidji mulanggaridjindjula.
Naraganawaliyiri yarabindjula.

This country is Ngunnawal ancestral and spiritual homeland.
We all always respect elders, male and female, as well as Ngunnawal country itself.
They always keep the pathways of their ancestors alive.
They walk together as one.

The ACT Government recognises the Ngunnawal people as Traditional Custodians of the ACT and surrounding region. The Government acknowledges that other people and families also have a traditional connection to the lands of the ACT and region, and we respect this connection to Country. Nothing in this Strategy shall be interpreted to limit the recognition of other Aboriginal or Torres Strait Islander peoples who may be determined under law to hold native title or other cultural rights in the ACT. For the purposes of this Strategy, "First Nations" refers to the broader ACT Aboriginal and Torres Strait Islander community, including groups with connections to the ACT. All subsequent reference to Traditional Custodians will simply use 'Ngunnawal' and reference to "Country" is Ngunnawal Country.

Preamble

This Strategy translates the main objects of the ACT *Nature Conservation Act 2014* into action. The Act requires that an ACT Nature Conservation Strategy (the Strategy) is reviewed every ten years. In 2023, the ACT Government carried out a strategic review of nature conservation in the ACT. This Strategy responds to the following headline requests for a strengthened nature conservation approach made by our community-based and professional partners, both within and outside of government:

- Honest, safe, and respectful pathways for the ACT First Nations community to participate and embed cultural practice in nature conservation processes and programs.
- A landscape-scale approach that will enable us to maintain and restore our natural values despite a growing city and a changing climate.
- Protection of critical habitat areas to support the viability of threatened plant and animal species, with limited use of environmental offsets.
- Support for stronger enforcement of provisions under the NC Act by adequately trained and empowered ACT Government Conservation Officers.
- Innovative approaches to increasing the financial sustainability and resourcing of ACT conservation programs to help achieve a 'Nature- Positive' future.
- Clear and increased capacity to drive timely implementation and rigorous evaluation of conservation strategies and plans.
- Production and use of high-quality ecological data and mapping products as an evidence-base to guide and track sustainable development and targeted restoration programs.

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A Strategy for Nature

We live on Ngunnawal Country within a sprawling urban forest that merges into exceptional grassland, woodland, and wetland habitats, bordering on vibrant river corridors and reaching up into spectacular alpine peaks. This web of diverse landscapes, rich in biodiversity and cultural significance, holds a special place in Australia's ecological tapestry. Our *Bush Capital*, intentionally designed to be a 'City in a Landscape', is a source of pride and play for Canberrans. It also provides a unique context for policy initiatives focused on recovering biodiversity, promoting sensitive urban design, and fostering social connectedness. Here, in our uniquely connected city, we can lead the way in showing how growing communities and vibrant nature are not separate goals, but part of one shared vision for a thriving city and natural environment.

Nature provides immense value to our community by sustaining the essential systems that support life and wellbeing. Healthy ecosystems regulate our local climate, forests and wetlands purify the air we breathe and the water we drink, while soils and pollinators support food production. Natural spaces also promote physical and mental health, offering places for recreation, connection, and cultural identity. By protecting nature, we safeguard the ecosystem services that underpin human health, economic prosperity, and a liveable planet for future generations.

Yet our treasured natural values are increasingly under threat. Habitat loss and fragmentation continues, aquatic and riparian ecosystems are being lost or degraded, and our list of threatened species is continuing to grow. Climate change, ongoing urban development, and invasive species are key conservation challenges that must be addressed in a comprehensive and coordinated way to safeguard our ecological, social, and cultural assets, for us and for future generations. A successful approach relies on strong conservation partnerships between government, Traditional Custodians, rural leaseholders, community organisations, and research institutions, to foster shared responsibility for actions that align with the needs and aspirations of our community.

This presents an opportunity for the creation of a new nature conservation framework in the ACT; one that reflects community expectations and addresses current national and global biodiversity commitments[1,2]. This Strategy lays out a cohesive, landscape-scale approach and framework, to deliver **a Nature Positive future**[3] for the Territory. A 'Nature Positive' approach means that our natural values are not only protected from further loss but are actively recovering and regenerating in clear, measurable ways. It is a strategic direction that recognises that the need for intentional and ambitious nature restoration has never been so urgent.

Central to this Nature Positive vision is the establishment of an ACT **Nature Conservation Network** (NCN) that is identified and defined within the ACT Landscape Plan. The NCN is a connected cross-tenure system of protected and conserved areas[4] that ensure nature endures for future generations, with our growing city and changing climate. Within the NCN, we will identify **Priority Conservation Areas** (PCAs): places in the ACT where our key natural values will be conserved, connected, restored and safeguarded. PCAs can encompass land and waters both within and beyond the formal protected area network, including in urban open space (UOS) and on rural leased lands. PCAs will contain critical habitats and values critical to ecosystem function, providing focus for recovery programs and financial investment.

Priority Conservation Areas will be managed to capitalise on opportunities to achieve Nature Positive outcomes, supported by a dedicated Conserved Area Policy (CAP). These areas will be mapped with clear criteria, enabling streamlining of planning and land-use decisions while

[1] Kunming-Montreal Global Biodiversity Framework - 2030 Targets (with Guidance Notes)
[2] Australia's Strategy for Nature 2024-2030 - Australia's National Biodiversity Strategy and Action Plan
[3] Nature Positive Initiative: A Global Goal for Nature
[4] *Conserved areas* are areas outside of the formal protected area system that are managed long-term for conservation.

safeguarding critical conservation values, and improving effectiveness of the mitigation hierarchy[5]. Their extent will be updated over the life of the strategy as new data and climate projections emerge. This strategic vision will be further embedded and operationalised through the ACT Landscape Plan and considered in the other existing and emerging plans and strategies including **the Planning Strategy**, and establishment of an **ACT Urban Growth Boundary**, ensuring landscape-level conservation priorities shape development and land-use decisions at every level.

With a combination of robust governance, targeted interventions, community engagement, and regular evaluations of progress, this *Nature Conservation Strategy* will guide decision-making and conservation action for the next decade. Achieving a Nature Positive future requires confronting three major, interrelated challenges in the ACT:

Challenge 1. Our climate and environment are changing.

Climate change presents extraordinary and unprecedented challenges to conservation. Its impacts on ACT ecosystems are already evident and will intensify in the coming decades. In Canberra, 6 of the 10 warmest years on record have occurred since 2013. The ACT has already warmed around 1.4 °C since 1910, and we can expect further increases to average temperatures over this baseline of 3.2 °C by 2050 and 5.1 °C by 2090, even under medium emission scenarios, with much higher extremes regularly experienced[6]. Climate change is exacerbating the effects of land fragmentation, accelerating biodiversity loss, and introducing novel threats to ecosystems, as well as compounding the threats we already face. While we can be sure that climate change will significantly alter our natural environments over time, the exact nature and scale of change is uncertain.

Responding to climate change requires adaptation, to conserve as far as possible both natural values and the many services they provide to our community. We must adjust to our changing climate and prepare for different futures in a context of high uncertainty. Decision-making needs to be anticipatory and flexible to acknowledge this uncertainty. It is clear that healthy ecosystems remove and store carbon, safeguard resources such as water and soil, and help to protect people and nature from extreme heat and flooding. An environmentally and socially just response to climate change requires important shifts in the way we approach nature conservation to protect, restore and maintain ecosystem health.

This Strategy will ensure that the ACT Government considers climate change risk in all conservation policies and operations, and builds climate change adaptation capacity for all conservation delivery partners. This will embed climate change adaptation into nature conservation, increasing agency and climate resilience. The outputs of this Strategy will directly increase our climate change adaptation knowledge, expertise, and resources. We will increase our focus on preparedness and trial on ground adaptation actions, and commit to bolder anticipatory planning with impacts of climate change considered in all conservation decisions.

Challenge 2. We are a growing city.

The ACT Government projects that Canberra's growing population will require approximately 100,000 additional dwellings by 2050[7]. This growth will be achieved through a combination of urban infill and greenfield development. The challenge here is that land suitable for development largely occurs throughout lowland areas that also contain hotspots of biodiversity, threatened ecological communities, and habitat for threatened species.

[5] 'Nature positive' must incorporate, not undermine, the mitigation hierarchy
[6] Australian Capital Territory Climate Change Snapshot
[7] ACT Government District Strategies 2023

It is inevitable that this increased housing supply will raise concerns of loss, degradation and/or fragmentation of some natural areas. Loss, degradation or simplification of habitat directly leads to loss of flora, fauna or fungi populations that depend on that habitat, leading eventually to local or global extinction of species and ecological communities. Further, disturbance or fragmentation of large, contiguous habitats limits the ability of wildlife to find food, reproduce successfully, and seek refuge from key threatening processes, including in response to climate change. This can isolate populations, reducing genetic diversity and leaving populations at greater risk from stochastic events such as fire or drought. Thus, urbanisation and its related infrastructure presents both a direct and indirect threat to nature.

While some nature loss will be unavoidable over the coming decade, compensatory gains must be achieved through significant and impactful restoration, and losses minimised through mapping of PCAs and the effective and proactive application of tools such as Biodiversity Sensitive Urban Design (BSUD). This Strategy will develop and embed new landscape-scale planning mechanisms to more proactively, effectively and equitably balance the needs of urbanisation and nature conservation; ensuring decision-making is transparent and accountable, and has a clear focus on avoiding ecologically sensitive areas and achieving Nature Positive outcomes. This Strategy highlights that gains of nature will require adaptive policy and improved inter-governmental coordination, underpinned by high quality environmental data and well-resourced spatial tools that help us identify, avoid, protect and restore PCAs.

Challenge 3. Invasive species are transforming nature.

The introduction of over 1,000 non-native plants, animals, and pathogens has had a profound and multifaceted impact on biodiversity, ecosystems, agriculture, cultural and social values and the economy of the ACT. By degrading and disrupting native terrestrial and aquatic habitats, and competing with or preying on native wildlife, invasive species – such as weeds, cats, *Phytophthora*, chytrid fungus or carp – are widely recognised as the leading cause of native species declines and extinction across Australia. Further, invasive species are able to colonise areas rapidly when favourable conditions arise from environmental disturbance (*e.g.* from climate change or urban development), which can amplify their spread and increase their impact on nature and society. Weeds in particular are worsening in our most threatened ecological communities and increasingly threaten our key natural values.

Managing and controlling invasive species impacts is a key element of nature conservation and restoration and requires a coordinated, adaptive, and sustained effort, as many of these species are highly resilient and difficult to control. Without effective systems to exclude (where possible) and manage (where not), invasive species will further degrade the ACT's ecosystems, leading to continued losses in our biodiversity and impacts on social, cultural, and economic assets. However, it is worth noting that in some circumstances – and perhaps increasingly under climate change – some introduced species can contribute to ecosystem functions in conditions where native species are unable to adapt or persist. Managing invasives will require nuanced and effective monitoring, evaluation and reporting systems to learn, adapt and keep pace with changing environmental conditions that favour invasive species, and to discern when intervention is helpful and not counterproductive.

This *Nature Conservation Strategy* will be in part implemented through the developing **Biosecurity Operating Framework** to focus our collective efforts to contain and reduce the negative impacts of invasive species. This will be achieved through transparent and adaptive land and water management, supporting foundational science and environmental standards that will strengthen our evidence base for costing and prioritising restoration actions and forecasting future risks to nature. Achieving our conservation targets through ensuring control of the introduction of invasive species from human activity will be furthered through a modern

and responsive biosecurity system. Critically, the Strategy will improve collaboration between government, universities and community conservation partners through knowledge exchange and the sharing of priorities for research and ecological restoration in relation to invasive species and biosecurity.

These challenges cannot be bypassed. Each represents large-scale system processes that we live within and among. Our task is to achieve gains in nature despite them, and doing so will require significantly increased levels of strategic planning, investment and coordination. For further information on our ACT approach to climate adaptation, landscape-scale conservation in the context of urban growth, and ecological restoration practice, please refer to NCS Supplements[8].

Best available research indicates that financial flows to biodiversity in Australia are insufficient and **a major increase in nature investment** across all jurisdictions is required to repair Australia's degraded landscapes and declining species[9]. To secure a larger and more sustainable budget for nature conservation, this Strategy will build on established government mechanisms to create a **financing mechanism and supporting policy** with the sole purpose of funding nature conservation. Any conservation value that is lost to development will be appropriately compensated for to ensure a Nature Positive outcome, either through a habitat replacement ratio or through the payment of restoration contributions or other related financing mechanisms. Replacement ratios and calculators for contributions will be allowed for under the NC Act and fully elucidated under a dedicated Restoration Contribution Policy (RCP).

To support this, efficiencies must be achieved through increased trust, collaboration and knowledge synthesis among government agencies, Ngunnawal, non-governmental organisations, industry, researchers and the local community. Conservation challenges are inherently complex and require a coordinated, multi-partner approach to be successfully addressed. This Strategy stands for **collaborative governance**, where all ACT conservation partners have a role in decision-making and implementation.

True care for Country cannot be achieved without the meaningful inclusion of the First Nations people. The Ngunnawal people hold deep cultural knowledge and spiritual connection to the landscapes and ecosystems of the ACT region. **Embedding Ngunnawal leadership** in conservation not only honours their inherent rights to care for and manage Country but also strengthens conservation outcomes through integration of cultural knowledge and practice, such as cultural burning, seasonal indicators, and long-standing ecological stewardship. This Strategy recognises that achieving Nature Positive outcomes is inseparable from genuine partnership with Ngunnawal and is committed to creating safe, enduring, and self-determined pathways to lead and shape conservation in the ACT.

This Strategy lays the groundwork for a future where nature in the ACT is thriving, resilient, and deeply valued. It champions a proactive and collaborative approach to conservation; one that restores ecological integrity, strengthens community stewardship, and ensures natural systems continue to support the health and wellbeing of people and place. By aligning climate adaptation (see Supplement A), urban development (see Supplement B) and restoration practice (see Supplement C) with the needs of nature, this Strategy aims to secure lasting ecological gains where they matter most.

[9] Blueprint to Repair Australia's Landscapes

Overview of the Strategy

Our vision

Canberra is a city thriving within a healthy and flourishing natural environment, where the aspirations for conserving nature reflect Canberrans' love for their Bush Capital.

Our mission

To embed a Nature Positive approach to protecting and restoring our natural values through proactive conservation and collective stewardship.

Our purpose

To have ecosystems that are biodiverse, connected, functioning, and valued by the community, enabling nature to thrive in a rapidly growing city and changing climate.

Our guiding principles

Committing to Nature Positive

Ensure biodiversity is demonstrably improved against a clearly articulated baseline.

Building a CAR conservation network

Conserve ecosystems and protect critical habitats within a comprehensive, adequate and representative (CAR) nature network.

Applying the mitigation hierarchy

Avoid priority conservation areas through early-stage strategic land-use planning.

Adapting to climate change impacts

Apply adaptation decision-making frameworks to build and strengthen ecosystem integrity.

Partnering with Ngunnawal

Elevate Ngunnawal knowledge, community, and cultural practices in conservation.

Upholding our right to a healthy environment

Commit to ambitious nature recovery work for current and future generations.

Our goals

Conservation Partnership

All carers of Country can access nature and are organised around a shared Nature Positive vision to efficiently and effectively deliver meaningful conservation action in safe and trusted partnership.

Ecological Recovery

Nature conservation is proactively and strategically delivered across the Territory to ensure natural values are protected and conserved to adapt, recover and thrive, now and into the future.

Enduring Impact

Nature conservation practice is continually learning and dynamic, accommodates rapid shifts in climatic, ecological, and socioeconomic conditions, and is financially sustainable.

Mapping our Vision

In this Strategy, we use a Theory of Change approach to articulate how we progress from conservations outputs, through outcomes, to our impact goals, showing how these are necessary and sufficient to achieve our overarching Nature Positive vision (Figure 1).

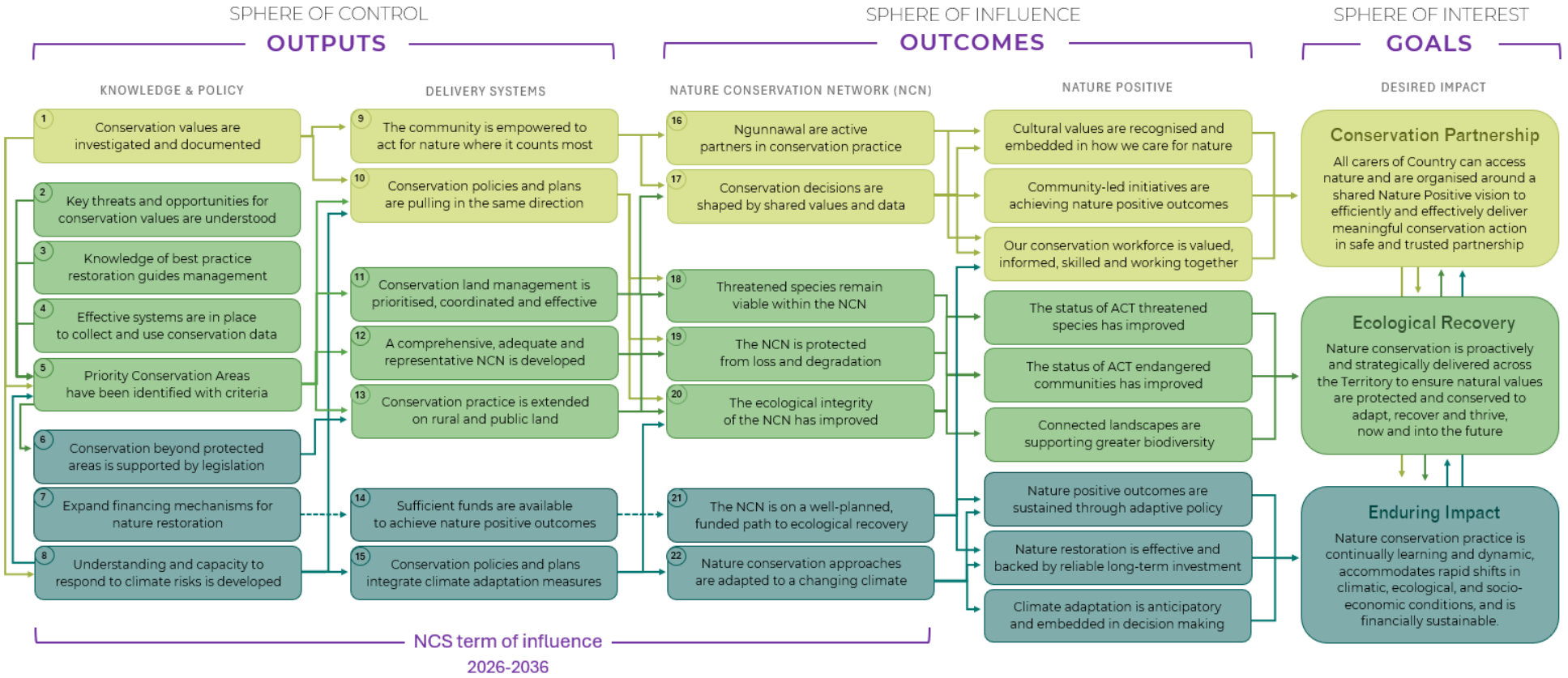

Figure 1. The Theory of Change (ToC) for the Nature Conservation Strategy. Each box with a number represents an output or outcome statement with associated Strategic Targets (page 7). Arrows represent primary causal links between outputs, outcomes and goals. *Note: arrows are differently weighted and dashed for readability purposes only.*

Strategic Targets

A Nature Positive approach must include targets, timeframes and measurable baselines[10]. Our **targets** are statements for what we aim to accomplish within the NCS **timeframe** (10 years). We will use the status of all relevant conservation values at year 2026 as our **baseline**. Our targets will act as benchmarks for evaluating NCS success (see *Delivering our Vision*, page 20). Below, we list **44 targets** that will produce the outputs and outcomes identified in our Theory of Change (page 6).

KNOWLEDGE & POLICY

1 **OUTPUT:** Conservation values are investigated and documented

TARGET 1: Priority conservation values are identified

To lay the foundation for Nature Positive conservation, we will identify priority conservation values to support conservation decision making and land use planning. Our priority conservation values will include ecological, cultural, and social dynamics and reflect both their current and future climate viability. Anticipatory planning will assess how these values may persist or shift under climate change, guiding our focus on their long-term protection and restoration.

For achievement by 2027

2 **OUTPUT:** Key threats and opportunities for conservation values are understood

TARGET 2a: Threats to priority conservation values are identified and evaluated

We will clearly identify known threats to each conservation value, assess the current understanding of threat impacts, and evaluate our capacity to address each threat. This approach ensures a holistic and strategic framework for conservation land and water management, prioritising actionable threats in areas with the highest potential for effective ecological recovery.

For achievement by 2027

TARGET 2b: A threat prioritisation framework is developed

This target recognises that conservation resources are limited, and not all threats can be addressed equally. Building on Target 2a and existing tools, we will deliver a suite of spatial planning and prioritisation tools to assess threat severity, likelihood of mitigation success, and potential gains for ecological, cultural, and climate resilience outcomes across Priority Conservation Areas (PCAs; see Target 5).

For achievement by 2028

3 **OUTPUT:** Knowledge of best practice restoration guides management

TARGET 3: Critical knowledge gaps in management effectiveness are addressed

We will establish a coordinated evaluation program to assess the ecological outcomes of threat management, biosecurity, and restoration practice across the ACT. This work will address current gaps in understanding how effectively we mitigate priority threats – especially urban development, invasive species and climate-amplified stressors – on priority conservation values. This will improve evidence-based prioritisation, investment efficiency, and adaptive management of conservation threats.

For achievement by 2029 and ongoing

[10] Don't dilute the term Nature Positive

4 OUTPUT: Effective systems are in place to collect and use conservation data

TARGET 4a: Critical conservation datasets are collected in a standardised way

We will standardise data collection methods around critical datasets and create robust digital data capture methods to streamline data collection ensuring that all critical data generated under the Strategy are robust, comparable, and decision ready. ACT data standards will be developed with a focus on quality control, usability, and interoperability with biodiversity data standards adopted by other states and territories and the Commonwealth.

For achievement by 2027 and ongoing

TARGET 4b: Clear protocols for conservation data management and use are embedded

We will establish and implement a clear, organisation-wide protocol for the maintenance, management and routine use of nature conservation data – including biodiversity, threat and operational data – ensuring it is accurate, accessible, and fit-for-purpose for decision-making and annual evaluation and reporting purposes across all conservation programs.

For achievement by 2029 and ongoing

TARGET 4c: Critical datasets required to achieve Nature Positive objectives are maintained

We will identify, resource and maintain the critical datasets necessary to support the delivery of Nature Positive outcomes and evaluate the effectiveness of management actions. These datasets will include those essential for informing evidence-based decision making and advice, developing science-backed policies, and tracking progress against the *NCS Indicator Framework* (see page 16). Priority will be given to datasets with direct and immediate relevance to the Strategy, ensuring data uplift efforts are strategically aligned with headline conservation goals. Datasets will be identified and functional by 2027 and maintained until 2035.

For achievement by 2035

5 OUTPUT: Priority Conservation Areas have been identified with criteria

TARGET 5a: PCAs are identified reflecting critical habitat

We will identify and map PCAs to ensure the long-term persistence of priority conservation values (Target 1a) under current and future climate. This will use best available ecological, cultural, social, and climate change data to identify areas across tenures that are necessary for long-term species recovery, ecosystem function, connectivity, and climate refugia, reconciled with existing land use commitments and priorities. This PCA map will provide a crucial input into the Landscape Plan and Planning Strategy, and support strategic decision making in areas such as restoration, management, and offset selection.

For achievement by 2026

TARGET 5b: PCAs are provided legislative protection

We will explore and develop appropriate mechanisms to support the protection of PCAs (Target 5a), and the process for their creation, maintenance and updating within ACT legislation. This will support the role of the PCAs in guiding strategic conservation planning, on-ground management and land-use decision making.

For achievement by 2029

6 OUTPUT: Conservation beyond protected areas is supported by legislation

TARGET 6a: A Conserved Area Policy is developed

We will explore options for development and implementation of a Conserved Area Policy (CAP) applying to the PCA network, to support nature gains beyond the formal protected area network, such as on urban open space (UOS) and rural properties. The CAP will set out appropriate land

uses and management dependent on the values present and the tenure they occur on, ensuring land use is compatible with the conservation values in these areas. The CAP will also outline potential mechanisms for incentive schemes (Target 6b) for public land custodians.

For achievement by 2029

TARGET 6b: A Stewardship Scheme for rural lands is introduced

We will seek to progress opportunities for a stewardship scheme that supports rural leaseholders to conserve biodiversity on leased lands. In alignment with the financial mechanism described below (Target 7), incentives such as grants and rebates may be considered to encourage protection and restoration of conservation values aligned with long-term ecological goals and climate adaptation practices.

For achievement by 2029

TARGET 6c: Biodiversity Sensitive Urban Design guidelines are reviewed and implemented appropriately

We will review Biodiversity Sensitive Urban Design guidelines to ensure they appropriately support achievement of Nature Positive outcomes in the context of a new strategic conservation approach and prioritisation of conservation values within PCAs; and support application of BSUD guidelines at the appropriate stages of urban planning and approval. This will maximise opportunities to embed strategic conservation planning approaches to the planning of our city while decreasing regulatory burden in low conservation value areas.

For achievement by 2026

7 **OUTPUT:** Expand financing mechanisms for nature restoration

TARGET 7: A policy and financing mechanism to fund nature restoration is progressed

We will seek to develop a dedicated Restoration Contribution Policy (RCP) and uplifted ACT Offsets Policy to incentivise harm avoidance and compensate for the damage of natural values, building on existing experience with existing contributions schemes. Through these policies, we will explore options to establish a financing mechanism to drive Nature Positive outcomes through ecological restoration, long-term conservation stewardship and appropriate resourcing of NCS implementation.

For achievement by 2029

8 **OUTPUT:** Understanding and capacity to respond to climate risks is developed

TARGET 8a: Case-based climate change risk assessments are completed

To build adaptive capacity across ACT's conservation sector, we will deliver climate change risk assessments for priority conservation values and systems. The assessments will explore future scenarios, vulnerability and risk, adaptation options, and decision pathways tailored to local contexts. They will inform planning, restoration, and policy interventions for long-term resilience, and inform the location and planning for PCAs (Target 5).

For achievement by 2028

TARGET 8b: Preparedness, response and recovery planning for priority values is undertaken

We will identify and plan key preparedness, response, recovery, and learning actions to protect and restore ecological, cultural and social values from impacts of climate change-driven extreme events. This process will clarify roles and responsibilities of conservation partners to support coordinated action before, during, and after extreme events.

For achievement by 2029

DELIVERY SYSTEMS

9 OUTPUT: The community is empowered to act for nature where it counts most

TARGET 9a: A spatialised community conservation guide is created

To empower community-led conservation, we will produce a user-friendly, spatially enabled decision support tool to guide prioritised threat management and ecological restoration within PCAs. The guide will centralise technical and legal information on ACT conservation areas, priorities, and available restoration tools and resources. It will be designed to build community capacity, guide BSUD implementation at a precinct scale and align local efforts with ACT-wide ecological and climate change adaptation goals.

For achievement by 2029

TARGET 9b: A Ngunnawal Access Protocol for the PCS-managed estate is created

We will establish an access protocol that enables Ngunnawal to visit cultural sites and undertake cultural practice across public conservation lands managed by the ACT Parks and Conservation Service, strengthening connection to Country and co-management opportunities.

For achievement by 2032

TARGET 9c: Management of cultural heritage sites occurs in partnership with Ngunnawal

We acknowledge Ngunnawal rights to participate in decision-making about how their cultural heritage is managed. Ngunnawal will be consulted on all heritage management plans or agreements that apply to PCAs in addition to the requirements of the *ACT Heritage Act 2004*. This target is integral to upholding, respecting, and honouring Ngunnawal cultural integrity.

For achievement by 2032

TARGET 9d: Local schools are engaged in nature education initiatives linked to PCAs

We will consider a school outreach program focused on the vision and function of PCAs. The program may include field trips, classroom talks, and student participation in citizen science, helping to foster early conservation awareness and lasting stewardship. Access to environmental education helps build a culture of conservation, empowering future generations to make informed decisions that protect nature over time.

For achievement by 2035

10 OUTPUT: Conservation policies and plans are pulling in the same direction

TARGET 10a: Conservation goals are embedded across relevant governance frameworks

Building on the integration of multiple land-use related government functions within the new City and Environment Directorate, we will continue to strengthen policy and operational alignment through working to ensure nature conservation objectives are consistently reflected and embedded as relevant across all governance frameworks that influence or impact the ACT's environment, including the Planning Act and Strategy, Public Unleased Land Act, Urban Forests Act, Biosecurity Act, Emergencies Act and the Climate Change Strategy. This work will aim to foster and promote policy coherence and address misaligned policy or processes that hinder Nature Positive outcomes.

For achievement by 2030

11 OUTPUT: Conservation land management is prioritised, coordinated and effective

TARGET 11a: 80% of land managers are engaged in effective conservation-focused biosecurity actions

We will engage at least 80% of rural leaseholders and public landholders within PCAs in undertaking conservation-focused biosecurity actions that support ecosystem protection and conservation. These actions include invasive species surveillance, eradication, control, and reporting, and disease prevention practices aligned with the ACT *Biosecurity Act's* shared responsibility principles.

For achievement by 2030

TARGET 11b: Impact thresholds of priority pests are identified and managed to in PCAs

The impact of different pests varies based on their density and the ecological value that we seek to benefit. For priority conservation values, we will identify priority pest species and the relationship between pest density and value impact, aiming to control pests to below this threshold, with an emphasis on Priority Conservation Areas.

For achievement by 2032 and ongoing

TARGET 11c: Recovery action for at-risk species and ecological communities is delivered

We will ensure conservation efforts, including threat management such as weeds and pest control, are strategically directed toward species at greatest risk of extinction and communities under greatest threat. Actions will align with existing *Threatened Species Conservation Strategies*, *Action Plans* and *Conservation Plans*, and be coordinated across jurisdictions and partners to maximise effectiveness and resource efficiency.

For achievement by 2031 and ongoing

12 OUTPUT: A comprehensive, adequate and representative NCN is developed

TARGET 12a: Representation of ecosystems in existing protected areas is assessed

To develop a comprehensive, adequate, and representative Nature Conservation Network, we will first assess the current ecological composition of existing protected areas. This assessment will identify which ACT ecosystems are already well represented and which are under-represented and should be prioritised for conservation. Ecosystems are typically assessed using proxies such as vegetation type, IBRA subregion[11] and species or habitat layers.

For achievement by 2027

TARGET 12b: The protection of underrepresented ecosystems is increased

Based on the results of Target 12a, this target will expand the NCN to ensure at least 30% of ACT ecosystems, especially those currently underrepresented, are legally protected based on estimated pre-1750 extent. Greater than 30% protection may be warranted for Threatened Ecological Communities. Legal protection efforts will be prioritised based on ecosystem vulnerability, representation gaps and long-term climate viability, and achieved through a mix of protected and conserved area designations.

For achievement by 2033

[11] Australia's bioregions: Interim Biogeographic Regionalisation for Australia (IBRA)

13 OUTPUT: Conservation practice is extended on rural and public land

TARGET 13a: Area of rural leased land managed for conservation is increased

We will extend conservation management practices across the ACT's rural leased lands through stewardship agreements and incentives. Blocks within PCAs (Target 5a) will be prioritised for investment. Leaseholder participation will be supported through training, co-development of Conserved Area Agreements (CAA), funding (Target 6b,7) and recognition of climate-adaptive practices.

For achievement by 2035

TARGET 13b: Area of unreserved public land managed for conservation is increased

We will deliver conservation management across public unleased Territory land outside of the existing reserve network. This will include public land classes defined in the *Planning Act 2023* as special purpose nature reserves, cemeteries and Urban Open Space (UOS). Public land within PCAs (Target 5a) – and particularly high conservation priority UOS – will be managed to maximise the integrity of their natural values, including their potential to provide climate refugia, ecological connectivity, and/or natural infrastructure co-benefits (*e.g.* cooling, flood management). Desired land and water management practices will be implemented through the CAP (Target 6a) as well as formal or informal management agreements where required.

For achievement by 2035

14 OUTPUT: Sufficient funds are available to achieve nature positive outcomes

TARGET 14: An NCN Investment Model is developed, resourced and implemented

We will aim to establish an ACT-wide climate-adaptive and fully costed Model that spatially identifies species and ecosystem priorities, sets best-practice standards, and guides restoration investments across PCAs (Target 5a) on public and private lands. It may use effort-outcome models (where sufficient data exists) to ensure financial, staffing and other resource allocation is sufficient to achieve land management outcomes in a cost-effective manner. It will be informed and supported by the CAP (Target 6a) and RCP (Target 7) and include periodic revision and sound monitoring and evaluation framework to ensure investment is targeted at appropriate priorities.

For achievement by 2031 and ongoing

15 OUTPUT: Conservation policies and plans integrate climate adaptation measures

TARGET 15: Guidance and tools for climate-adaptive planning are developed and used

To achieve a more climate-adaptive framework of policies and plans, we will clearly articulate and embed guidance for how to adjust our collective conservation decision making and planning over time, as the climate changes. Guidance and tools will help conservation planners and decision-makers navigate uncertainty, apply scenario planning, and revise policies over time in response to climate change. Developed collaboratively with land managers, policy makers, and climate scientists, they will provide clarity on how to future-proof ACT conservation frameworks.

For achievement by 2030

THE NATURE CONSERVATION NETWORK

16 OUTCOME: Ngunnawal are active partners in conservation practice

TARGET 16a: At least 40 self-determined cultural burns are delivered on Country

We respect the inherent rights of Ngunnawal to care for Country and apply cultural fire on their terms and in alignment with their cultural protocols. To enable this, we will proactively shape government systems and authorise our personnel to support access, approvals and flexibility, removing institutional barriers to allow cultural burns to proceed where, when and how Ngunnawal determine.

For achievement by 2035

TARGET 16b: Stronger partnerships with Ngunnawal are established through increased opportunities to participate in government-led burns

We will seek Ngunnawal involvement in government-led non-hazard reduction burns, and particularly the PCS ecological burn program. This requires government agencies to offer culturally safe opportunities for participation and facilitate training and equipment for community where required. Conducting burns on Country together provides an avenue to build trust and knowledge sharing to create a stronger partnership with Ngunnawal.

For achievement by 2035

TARGET 16c: Restoration of PCAs is delivered with Ngunnawal

To strengthen collaboration between the ACT Government and the Ngunnawal community in the management of Country, Ngunnawal representatives will work with the City and Environment Directorate (CED) to identify and progress priority, self-determined restoration initiatives on Ngunnawal Country. These initiatives will be co-designed, with clear roles, timelines, and outcomes agreed upon by both parties to ensure culturally appropriate and effective restoration.

For achievement by 2035

17 OUTCOME: Conservation decisions are shaped by shared values and data

TARGET 17a: Management effectiveness of PCAs is evaluated

We will ensure that a robust Monitoring Evaluation and Learning Framework is established, and implemented through an associated program, to track and report on annual changes in the general condition of PCAs. This will be a critical underpinning of evidence-based decision-making and an adaptive conservation management framework. Evaluation of monitoring data will determine whether and how management actions contribute to ecological improvement, allowing for robust, data-driven adjustments to conservation practice and accountability in delivery. Monitoring data will also inform cost-effective financial investment to be refined over time.

For achievement by 2035

TARGET 17b: The NCS Indicator Framework is reported on biennially

Using critical datasets (Target 4c) we will collate, analyse and share our progress towards nature positive outcomes and NCS targets biennially. This will enable any persistent data gaps to be identified and rectified and ensure adaptive and continual learning and practice takes place throughout delivery of the strategy. A platform to regularly bring together Ngunnawal community, land managers, scientists, and community groups to share learnings from the NCS indicator framework, including restoration and climate adaptation projects, will be explored to foster strengthened collaboration.

For achievement by 2028 and ongoing

TARGET 17c: Positive public perception of the NCN is fostered

We will track changes in public attitudes toward biodiversity, ecosystem services, and recreational values to better understand how people connect with nature. This includes measuring improvements in public perception of the NCN and its role in building social legitimacy and long-term support for conservation strategies that align with both ecological objectives and community values.

For achievement by 2036

18 **OUTCOME:** Threatened species remain viable within the NCN

TARGET 18: No new avoidable extinctions occur in the wild

This target recognises that climate-driven range shifts will over time alter whether and where species persist, meaning some, unavoidably, will no longer have viable habitat in the ACT. We will work to minimise the risk of all new avoidable extinctions of native species, aiming to ensure all remain in the wild in natural habitats, fully utilising tools of habitat protection, management and restoration including threat management (weeds, feral pests, diseases, biomass control) and captive breeding/reintroduction where necessary.

For achievement by 2036

19 **OUTCOME:** The NCN is protected from loss and degradation

TARGET 19: Loss of PCA extent is reduced to near zero

We will ensure that areas of high ecological integrity and biodiversity value are protected from irreversible loss. Efforts will include systematic identification, enforcement of land-use protections, early intervention against threats, and baseline ecological condition monitoring. The goal is to keep these areas ecologically intact and resilient in a changing climate as a core pillar of ACT's Nature Positive vision.

For achievement by 2029 and ongoing

20 **OUTCOME:** The ecological integrity of the NCN has improved

TARGET 20a: The loss of priority conservation values to weeds is halted or reversed

We will seek to reduce the cover of weeds known to threaten priority values on PCAs to restore ecological integrity and improve climate resilience. A strong biosecurity and invasives management framework is vital, to effectively identify weeds entering the Territory, eradicate these where possible, control and limit spread, and manage and reduce the impact of established weeds. Interventions will require adaptive weed management, site-specific research, and the restoration of native species to maintain ground cover in a changing climate.

For achievement by 2035

TARGET 20b: The spread of pest plants, animals and diseases is effectively controlled and reduced

The number of potential incursions of pest plants, animals and diseases has been intensifying across the ACT in recent years. Where possible, we will prevent new incursions through proactive biosecurity measures. Where incursions happen, we will control and reduce their abundance, distribution and/or adverse impacts on priority conservation values with a focus on early detection and rapid response. Delivery of this target will improve the function and resilience of native ecosystems.

For achievement by 2035

TARGET 20c: Appropriate fire regimes are maintained across the NCN

We will utilise ecologically appropriate fire (which considers intensity, frequency and extent) where possible, to at least 70% of the extent of identified fire-dependent ecological communities across the NCN. This will ensure ecological burns align with the best available evidence for fire dependent communities' tolerable fire intervals (TFI), which are the intervals required to sustain biodiversity, ecosystem function, and resilience.

For achievement by 2036

TARGET 20d: Connectivity of grassland and aquatic-riparian environments is maintained

We will aim to increase connectivity in grassland and aquatic-riparian ecosystems to enhance ecosystem health and adaptive capacity. We will seek to prevent loss or fragmentation of habitats within PCAs, prioritising restoration in locations that close habitat gaps, enable dispersal and migration, and overcome existing barriers to wildlife movement which currently persist in the urban environment.

For achievement by 2036

TARGET 20e: Connectivity of woodlands and forests is increased

To enhance ecosystem health and adaptive capacity, we will aim to increase connectivity by at least 5% across ACT's forests and by 10% across ACT's woodlands. We will seek to prevent loss or fragmentation of habitats within PCAs, prioritising restoration in locations that close habitat gaps, enable dispersal and migration, and overcome existing barriers to wildlife movement which currently persist in the urban environment.

For achievement by 2036

21 **OUTCOME:** The NCN is on a well-planned, funded path to ecological recovery

TARGET 21: Active and effective restoration is sustained on at least 50% of PCAs

We will support active, climate-adaptive restoration on at least 50% of at-risk PCAs regardless of whether they occur within or outside of existing reserves, ensuring restoration efforts align with best-practice ecosystem restoration principles (see NCS Supplement C) to maintain or enhance function and resilience. This includes standardised capture of data related to management effort, type and extent which is required to inform effectiveness evaluation and improve accuracy of financing estimates in future programs.

For achievement by 2036

22 **OUTCOME:** Nature conservation approaches are adapted to a changing climate

TARGET 22: On-ground climate adaptation measures are prioritised, trialled and evaluated

We will develop and apply a framework to prioritise and implement on-ground climate change adaptation actions for conservation values most at risk (Target 1). Building on foundational data (Outputs 4 and 8), this framework will guide the application of interventions across the Resist–Accept–Direct (RAD) spectrum, such as altered fire regimes, species relocation, or climate-resilient plantings, and actions that build and retain carbon stocks with co-benefits to adaptation. Actions will be trialled as novel interventions, with clearly defined objectives and robust evaluation methods to support learning, improve design, and guide future climate-adaptive conservation (see NCS Supplement A).

For achievement by 2030 and ongoing

Delivering our Vision

Tracking Progress

Achieving a Nature Positive ACT requires more than setting targets – it demands a robust, transparent system to measure progress and adjust course when needed. This Strategy will be underpinned by the ***NCS Indicator Framework*** (the Framework), which translates our Theory of Change and associated targets into a measurable, testable, and adaptive framework for delivery. The Framework will define **measurable indicators** allowing us to measure progress and evaluate whether our progress achieves the ecological, cultural and social gains we seek. It will also define the points where the causal logic of the Strategy will be tested and reviewed, enabling evidence-informed adjustments over time.

Indicators will fall into two primary types:

> *Process Indicators* track the implementation of actions (e.g. area of land restored, number of partnerships established, policies enacted); and
>
> *Outcome Indicators* track achievement of targets at the outcome level, effectively assessing the effectiveness of those actions (e.g. improved ecological condition, species recovery, increased community stewardship).

The **measurable indicators** for each stage of the Theory of Change will transition from predominantly *Process Indicators* in the earlier stage of the Strategy, to predominantly *Outcome Indicators* in the later stages. As such, indicators represent a gradient from measuring that an output was produced (29 targets), to whether that output led to a specific outcome (16 targets), to whether that outcome contributed to a broader Nature Positive impact (see below).

The **Nature Conservation Network** (NCN) and **Priority Conservation Areas** (PCAs) will act as focal points for tracking change, as their establishment:

(1) requires a series of outputs to progress (measured by *Process Indicators*);
(2) will result in a series of outcomes being achieved (measured by *Outcome Indicators*); and
(3) will contribute to the collective Nature Positive impact of the whole NCS.

The NCS Indicator Framework will be embedded in a Monitoring, Evaluation and Learning Framework (MELF) that sets out a **schedule for monitoring and reporting**, including annual updates and public reporting every five years via an ***ACT State of Nature Report***. To support accountability, data will be collected and maintained by responsible agencies ensuring open access, transparency, and alignment with ACT's broader environmental governance.

How will we know we are Nature Positive?

A core ambition of this Strategy is to deliver **Nature Positive outcomes**: measurable improvements in biodiversity, ecosystem function, climate resilience and social and cultural connection. To determine whether we are on track, we must be able to assess both losses conceded, and gains achieved, in the extent, condition, and function (e.g. connectivity) of "nature". To do this, the NCS Indicator Framework will monitor several metrics, indicators, and indices that relate to total area, condition and function we may lose from increased urbanisation, invasive species, climate change, and other factors, along with the total area, condition and function we may gain from protection,

restoration, and management effectiveness. This may include tracking changes in threatened species and overall biodiversity using the Threatened Species Index and Living Plant Index approaches, measuring functional connectivity through Effective Mesh Size (as per the City Biodiversity Index), using multiple Ecological Condition Indices to track changes in overall condition, and explicit accounting of the extent of natural areas gained and lost. At a basic level the calculation for Nature Positive is outlined as follows:

Figure 2. The Nature Positive equation, developed by the Office of Nature Conservation (ONC). All nature gains are anticipated to be achieved through formal protection and active ecological restoration.

Review and continuous improvement

This Strategy is designed to be adaptive. A **comprehensive review** will occur at 5 years (Box 1) and near the end of the Strategy's 10-year life, but mechanisms for earlier adjustments will be built in. Biennial reporting will provide opportunities to recalibrate actions if monitoring reveals significant deviations from expected outcomes.

We acknowledge that conservation is occurring in a dynamic landscape – ecologically, socially, and politically. Our MELF must work within that context. Through transparent reporting, peer learning, and regular evaluation, we will ensure this Strategy remains a framework guided by evidence, shaped by collaboration, and grounded in a long-term commitment to nature.

Resourcing and Responsibilities

Delivering the ambitious goals of this Strategy will require clear accountability, coordinated action across existing teams and capacity, and a modest and carefully prioritised investment. To guide implementation over the decade, a dedicated ***NCS Implementation Roadmap*** (the Roadmap) will be developed as the key operational tool for turning strategic vision into practical delivery.

The Roadmap will set out how each of the 44 Strategic Targets will be achieved by:

- Defining the **actions required** to meet each target;
- Assigning a **lead agency** and supporting **delivery partners**; and
- Mapping the **legislation, policies, strategies and plans** that support delivery, including alignment with national frameworks and cross-border initiatives.

The Roadmap will also prioritise actions, identify funding status, and highlight gaps, enablers, and risks to delivery, so they can be addressed proactively at an early stage.

A **dedicated NCS implementation team** is required to lead, coordinate, promote and support implementation. This team will provide policy advice, program coordination, and leadership support, acting as a knowledge broker and ensuring decisions are evidence-informed, consistent and aligned across agencies and partners.

Critically, the process of the NCS development has revealed **data standardisation and uplift as a key enabling process**. Effective nature conservation depends on the consistent use of reliable data; data on species, habitats, ecological processes and threats underpin every conservation decision

we make, from prioritising recovery actions to assessing the impact of development or climate change. Success of the NCS relies heavily on clear, shared instructions for collecting, managing and using this information so that it is trustworthy, current and interpreted with confidence by all those tasked with providing prioritised, strategic direction and making decisions for nature.

Data collection, management, storage, evaluation, use and reporting underpins adaptive management and accountability in implementation of the NCS. A key step to success will be ensuring all conservation and threat management programs allocate a portion of funding towards monitoring and data. Data and insights from across planning, development, threat management, restoration, and compliance processes will feed into a **centralised evidence base**, improving the quality, consistency and automation of decision-making. This will enable more efficient targeting of land management and restoration action, and a smoother process for development planning and approvals including the evidence-based allocation and implementation of environmental offsets.

Collaboration and strong governance are central. Conservation outcomes will only be achieved through deep and ongoing partnerships that allow for more efficient and shared delivery of actions, avoiding duplication and maximising returns on investment. Government, Ngunnawal community, community groups, volunteers and leaseholders will all play a critical role in aligning local projects with NCS outcomes. The **Parks and Conservation Service** (PCS) and **Natural Resource Management** (NRM) bodies are key government agencies in delivering landscape-scale conservation, including in nature reserves and agricultural areas. Cross-border coordination with NSW will be strengthened through delivery partnerships guided by NCS targets. Where possible, the NCS delivery will be **embedded in existing City and Environment Directorate structures**, with strong links to land use planning and restoration programs.

In doing so, the NCS Implementation Roadmap will serve as the critical bridge between strategic ambition and practical delivery, ensuring that all actors, across all sectors, are working in concert toward a Nature Positive ACT.

Box 1. *Nature Conservation Act* provisions for implementing this Strategy

Section 58 – Conservator to implement

If a nature conservation strategy is in force for the ACT, the conservator must take reasonable steps to implement the strategy.

Section 59 – Monitoring

In preparing the draft nature conservation strategy, the conservator must consider—

(1) The conservator must monitor the effectiveness of the nature conservation strategy for the ACT.

(2) The conservator must report to the Minister about the nature conservation strategy for the ACT at least once every 5 years.

(3) The Minister must consider the report and may take any action the Minister considers appropriate.

(4) The Minister must make the report publicly accessible not later than 30 days after the day the conservator gives the report to the Minister.

Appendix A: NCS Glossary

Glossary of key terms and definitions applied throughout this Strategy.

Term	Definition
ACT	Australian Capital Territory.
ACT Landscape Plan	A planning and management framework that guides how ACT landscape and its assets – such as vegetation, open spaces, and nature strips – are protected, managed, and integrated into development across the Territory.
ACT State of Nature Report	A public-facing, five-yearly report that provides a comprehensive assessment of the ecological condition, biodiversity trends, and conservation outcomes across the ACT.
Assumption	Principally refer to beliefs that are accepted as true or taken for granted in defining the causal links in the causal pathway. These are also sometimes called 'pre-conditions', referring specifically to assumptions about things that must be in place for the link to work. More generally, assumptions may also involve complementary activities by other actors, and internal and external risks, opportunities, barriers and enablers.
Baseline Condition	Refers to the initial ecological state of a site before restoration or intervention begins. It serves as the reference point for assessing change, planning restoration actions, and measuring progress toward recovery.
Biodiversity	The variability among living organisms from all sources (including terrestrial, marine and other aquatic systems and the ecological complexes of which they are part) and includes diversity within species and between species, and of ecosystem.
Biodiversity Sensitive Urban Design (BSUD)	An approach to urban design that incorporates 5 core ecological principles to conserve and enhance biodiversity within urban and peri-urban environments. Specifically, BSUD requires designs to maintain or create habitat for target species, facilitate dispersal, minimise disturbance and other threats, facilitate natural processes, and facilitate positive human-native interactions.
Causal Pathway	A backwards mapping from a strategic *goal* through all the long and short-term *outcomes* to the *outputs* needed to achieve it, identifying a logic arrangement of causal links between these.
Chytrid Fungus	Chytridiomycosis is an infectious disease that affects amphibians worldwide. It is caused by the chytrid fungus (*Batrachochytrium dendrobatidis*), a fungus capable of causing sporadic deaths in some amphibian populations and 100 per cent mortality in others.
City and Environment Directorate (CED)	A central agency of the ACT Government responsible for planning, transport, environmental stewardship, and city services.
Climate Resilience	Climate resilience in relation to conservation planning refers to the ability of ecosystems, species, and conservation systems (policies, plans, management tools, the NCN) to withstand, adapt to, and recover from the impacts of climate change. On the Landscape conservation planning, this would mean designing and managing natural areas in a way that they anticipate and respond appropriately to climate change impacts or hazards.
Connectivity	See "Ecological Connectivity".
Conservation	The protection and maintenance of nature while allowing for its ecologically sustainable use.
Conservation Officer	An authorised official appointed under Part 2.3 of the Nature Conservation Act 2014 in the ACT, and who is empowered to enforce the Act.
Conservation Value	The relative value of a parcel of land based on a suite of ecological, social and cultural values.
Conservator	The Conservator of Flora and Fauna is a statutory position within the ACT Government responsible for leading and overseeing nature conservation efforts across the Territory.
Conserved Area	A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values. See also *OECM; Other area-based Effective Conservation Measures*.

Term	Definition
Conserved Area Policy (CAP)	A policy framework that guides the identification, management of Priority Conservation Areas located outside of the formal protected area network. The management aspects of the PCAs that covers conservation and restoration objectives are set out by this policy based on the ecological, cultural, or climate resilience values and tenure they occur on. The policy will also outline the mechanisms for incentive schemes for supporting land custodians involved in contributing to nature conservation outcomes.
Critical Habitat	Habitat for a protected matter, species or ecological community that is critical to the long-term survival and recovery of that matter, species or community. An area will only become Critical Habitat if it is formally declared under the *Nature Conservation Act*.
Cultural Burning	A traditional Aboriginal land management practice that uses fire to enhance the health of the landscape and its people.
District Strategy	District Strategies provide spatial plans for Canberra's nine districts. They identify areas for growth and change, reflect local character, and guide development to support housing, services, transport, and sustainability. Each strategy aligns with the broader Planning Strategy and informs future zoning and development decisions.
Ecological Burning	Non-hazard reduction burns that focus on improving the habitat for threatened plants and animals and to promote biodiversity. This can involve promoting the growth of specific plant species, creating diverse vegetation structures, and facilitating seed germination.
Ecological Connectivity	The degree to which landscapes allow for the movement of species, ecological processes, and genetic exchange. Connectivity is crucial for ecosystem resilience and species survival, especially under climate change.
Ecological Recovery	The process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.
Ecological Restoration	The process of assisting the recovery of such ecosystems to a state that reflects the structure, function, and trajectory of a comparable, healthy reference ecosystem.
Ecological Transformation	The dramatic and effectively irreversible shift in multiple ecological characteristics of an ecosystem, the basis of which is a high degree of turnover in ecological communities.
Ecosystem Services	Ecosystem services are the benefits provided to humans through the transformations of resources (or environmental assets, including land, water, vegetation and atmosphere) into a flow of essential goods and services e.g. clean air, water, and food.
Endangered/Threatened Ecological Community (EEC)	An ecological community is a group of native plants, animals and other organisms that naturally occur together and interact in a unique habitat. A threatened ecological community is the one which is at the high risk of extinction because their compositions and functions are significantly depleted. In the ACT, threatened ecological community means a threatened community list notified under section 91 of the NC Act.
Functional Connectivity	A measure of how easily organisms can move across a landscape based on habitat suitability, spatial arrangement, and barriers. Often quantified through metrics like Probability of Connectedness, which is the likelihood that two randomly chosen habitat patches (or points within patches) are functionally connected, considering both the spatial arrangement of habitat and the ability of species to move through the landscape.
Future-ready	Refers to a principle of landscape-scale conservation planning that is designed to be proactive, anticipatory, and resilient in the face of climate change and ecological uncertainty.
Genetic Diversity	Genetic diversity refers to the variation in genes within a species or population. It is a critical component that underpins the resilience, adaptability, and long-term survival of species and ecosystems.
Goal	The enduring impact in society and the environment that our Strategy means to effect.
Governance	Governance in the NCS is the coordinated system of policy frameworks, institutional roles, stakeholder engagement, and data management that supports strategic, landscape-scale conservation and ensures alignment with broader environmental and planning strategies.
Greenfield Development	Greenfield development refers to the construction or expansion of infrastructure, housing, or other projects on undeveloped land, typically on the outskirts of a city and not within the existing urban area.
Habitat Degradation	The process where a natural habitat becomes less suitable for its native species but is not completely destroyed.
Habitat Fragmentation	An umbrella term describing the complete process by which habitat loss or artificial barriers result in the division of large, continuous habitats into a greater number of smaller patches, isolated from each other by a matrix of unsuitable habitats. Habitat fragmentation can confound the impacts of climate change, where the adaptive capacity of a species, process or community is reduced as a consequence of its isolation within the landscape.
Habitat Loss	The process where a natural environment is unable to support its native species, leading to a decline in biodiversity and potential extinctions

Term	Definition
Habitat simplification	The process where natural habitats are converted into simpler, less diverse ecosystems. This simplification can involve the reduction of habitat complexity, including the loss of structural diversity and species diversity.
Hotspot	A region with a high concentration of endemic species, that is also experiencing high level of threats from human activities, climate change and other threats.
Indicator	A measure used to evaluate performance, progress, or success of interventions in achieving our *objectives* and impact *goals*. *Process Indicators* measure the implementation or delivery of strategic *activities*, services or processes, and tracks whether tasks or actions are being performed as planned. *Outcome Indicators* measure the results or impacts of strategic *activities* or interventions, and tracks whether *outcomes* or *goals* are being achieved.
Indicator Framework	A structured tool that defines measurable indicators (as above) for outputs, outcomes, and impacts defined under the NCS, enabling one to measure progress and evaluate achievements towards positive ecological, cultural and social gains.
Indices	In conservation monitoring, an index is a tool used to summarise multiple variables (e.g. species richness, habitat condition, connectivity) into one interpretable metric. Indices refer to these combined metrics.
Invasive species	Introduced plants and animals that can establish quickly and spread to the point of threatening native communities and ecosystems.
Landscape-scale Conservation	A strategic approach that considers entire ecosystems, habitats, ecological processes and services across large geographic areas, rather than focusing on individual sites or species.
Mitigation Hierarchy	A framework for managing environmental impacts that prioritises avoiding impacts first, then minimising them, restoring affected areas, and finally offsetting and residual impacts. The NCS embeds a strong emphasis on avoiding development in Priority Conservation Areas (PCAs) to protect biodiversity and ecosystem function.
Monitoring, Evaluation and Learning Framework	A system for monitoring ecological outcomes, evaluating conservation effectiveness, and supporting adaptive learning to guide decision-making and improve implementation of the ACT Nature Conservation Strategy.
Natural Resource Management (NRM)	It is a way the ACT Government looks after our land, water, biodiversity and cultural assets. NRM considers the benefits and ecosystem services provided by our natural environment.
Nature Conservation Act (NC Act)	Referred here is the *Nature Conservation Act 2014* (NC Act). It is the principal legislation of the ACT that provides the legal framework for the protection, conservation and enhancement of biodiversity of the Territory.
Nature Conservation Network (NCN)	A strategic, cross-tenure network of lands and waters in the ACT under some form of long-term protection or conservation and active conservation management – including green and blue corridors and climate refugia – managed for Nature Positive conservation outcomes. The NCN integrates formal reserves and PCAs beyond the formal protected network – including stewardship lands and urban green and blue space and infrastructure – to deliver functional connectivity and ecological resilience across ACT landscapes.
Nature Conservation Strategy (NCS)	A statement of (1) proposals to protect, manage, restore and conserve native species and significant ecosystems of the Territory, and (2) strategies to address actual and potential impacts of climate change. The NCS also includes anything required to be included by a conservator guideline.
Nature Reserve	See “Reserve”.
Nature Positive	A term used to describe circumstances where nature – species and ecosystems – is being repaired and is regenerating rather than being in decline.
Other Effective Area-Based Conservation Measures (OECM)	Other area-based Effective Conservation Measures (also *Conserved Area*): A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values. Includes private conservation agreements and community-managed lands.
Office of Nature Conservation (ONC)	The Office of Nature Conservation refers to the functions within the ACT Government under the City and Environment Directorate, that support the Conservator of Flora and Fauna in delivering nature conservation responsibilities under the *Nature Conservation Act 2014*.
Outcome Indicators	Outcome indicators measure the effectiveness of conservation actions, determining whether outputs are translating into desired outcomes. measure the results or impacts of strategic *activities* or interventions, and tracks whether *outcomes* or *goals* are being achieved and contributing to a Nature Positive ACT.

Term	Definition
Outcomes	Flow-on effects expected to result from our strategic *outputs* interacting with other things happening in the wider world; these may be short to long-term. Outcomes can also be described as pre-conditions for achieving a *goal*.
Outputs	The immediate results of activities within the sphere of control of the Strategy to deliver.
Parks and Conservation Service (PCS)	Parks and Conservation Service, functioning under the City and Environment Directorate, is a branch responsible for managing the ACT's parks, reserves, and rural lands. It focuses on protecting and conserving the natural and cultural resources of the Territory, while also promoting appropriate recreational, educational, and scientific uses of these areas under relevant legislation such as the NC Act and *Planning Act 2023*.
Planning Strategy	The ACT Planning Strategy sets long-term goals for Canberra's growth to 2050. It guides land use, infrastructure, and environmental planning to support a compact, sustainable, and resilient city, focusing new housing within existing urban areas and aligning development with community, climate, and transport priorities.
Priority Conservation Area (PCA)	Spatially defined areas identified as critical to achieving long-term Nature Positive outcomes in the ACT. PCAs will contain critical habitats, plus the areas needed to support critical ecosystem function and achieve a comprehensive, adequate and representative network of protected and conserved lands, providing focus for recovery programs and financial investment. PCAs may include urban open space and rural leased lands, and will be determined by strategic decision-making to align with Planning priorities, ensuring development is avoided in these critical areas.
Priority Conservation Values	Priority conservation values are the ecological, cultural, and social elements of nature that are considered most important to protect, restore, and sustain within the ACT. These values form the foundation for Nature Positive conservation and guide strategic planning, investment, and management under the Nature Conservation Strategy.
Privately Protected Area	A protected area as defined (see also: *Protected Area*), but under private governance including by individuals and groups of individuals, non-governmental organisations, corporations, for-profit owners, research entities or religious entities.
Process Indicators	One of the primary indicators under the NCS Indicator framework that will measure the implementation or delivery of strategic *activities*, services or processes, and tracks whether tasks or actions are being performed as planned.
Protected Area	A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.
Phytophthora	Often referred to as water molds, that are devastating plant pathogens. They are responsible for various diseases, including Phytophthora dieback and root rot,
Resist–Accept–Direct (RAD)	A framework that helps with decision-making, providing a shared climate lens that helps people grapple with the implications of climate change for conservation management.
Reserve	Refers to wilderness areas, national parks, nature reserves, catchment areas and special purpose reserves prescribed in Schedule 1 of the Nature Conservation Regulation 2015 (NC Regulations) that are protected under the NC Act.
Restoration	See "Ecological Restoration".
Restoration Contribution	A mechanism for offsetting biodiversity losses from development by contributing financially to a dedicated fund to support habitat restoration, stewardship, or conservation actions elsewhere.
Restoration Contribution Policy (RCP)	A policy instrument under the NC Act that governs how financial contributions for biodiversity loss are calculated, collected, and allocated to achieve nature positive outcomes.
Rural Leaseholder	A rural leaseholder in the ACT is an individual or entity that holds a lease over rural land under the *Planning Act 2023*.
Stewardship	The active management and care of land to maintain or enhance its conservation values, often undertaken by private or community landholders through formal agreements or incentive schemes.
Stochastic Event	An event that is inherently random or unpredictable, such as fires.
Target	A specific, measurable, achievable, realistic and time-bound statement for what should be accomplished. In the *Nature Conservation Strategy*, each target is directly linked to an output or outcome statement and will act as a benchmark for evaluating success.

Term	Definition
Territory Plan	The Territory Plan is the ACT's statutory planning instrument under the Planning Act 2023. It regulates land use and development through zones, policies, and codes. It ensures development aligns with strategic planning goals and provides the legal basis for assessing development applications.
Theory of Change (ToC)	Theory of change in terms of the NCS is a logical explanation of how specific actions are connected to the outputs, outcomes and goals. It maps the steps and pathways needed to achieve short, middle term and long-term conservation outcomes.
Threatened Species	A species of native plant or animal that is at high risk of extinction in the foreseeable future, with population declines and/or loss of habitat due to various processes such as human activities and climate change.
Tolerable Fire Interval (TFI)	The minimum and maximum time between fires that a fire-dependent ecological community can tolerate without experiencing long-term ecological degradation.
Traditional Custodians	In the context of nature conservation, Traditional Custodians are Indigenous Australians who have a deep and continuing connection to specific lands and waters and who hold traditional knowledge and practices for caring and managing those areas. Their traditional knowledge and practices offer valuable insights for modern conservation efforts. See also: *Acknowledgement of Country*
Transformer Weed	Invasive plant species that have impact to the extent that they change the character, condition, form or nature of ecosystems over a substantial area relative to the extent of that ecosystem.
Urban Infill	Refers to urban infill development -the process of developing vacant or underutilized land within existing urban areas to increase density.
Urban Open Space (UOS)	Public land reserved under the Territory Plan as 'urban open space' with a primary objective to provide for public and community use of the area, or develop the area for public and community use.
Urbanisation	The process by which towns and cities are formed and become larger as more people begin to live and work in central areas.

Appendix B: NCS Assumptions

The Theory of Change process elicits assumptions or 'pre-conditions' that need to hold at each stage along causal pathways for the links to work. Assumptions principally refer to beliefs that are accepted as true or taken for granted in defining the causal links in the causal pathway. Assumptions may also involve complementary activities by other actors, and internal and external risks, opportunities, barriers and enablers. "T" stands for Target.

Theme	Assumption (pre-condition)	Implication	Causal Pathway
Political and Institutional Support	Long-term political commitment to the NCS across government cycles and Directorates is sustained.	Implementation is stalled or deprioritised; targets lose momentum and Strategy vision is not achieved.	All
Unanticipated Events	Unforeseen circumstances inhibit implementation of actions to achieve targets, *e.g.* corporate knowledge and/or capacity lost, unpredicted climate impacts or sudden increased costs, does not occur in the next 10 yrs.	Implementation is stalled or deprioritised; targets lose momentum and Strategy vision is not achieved.	All
	An unpredictable natural disaster or other event that may significantly affect a species or ecological community leading to disastrous consequences, such as local extinction(s), does not occur in the next 10 years.	Opportunities to progress towards meeting targets are lost and Strategy vision is not achieved.	All
Adaptive Management	The Strategy can be adaptive to changes in priorities over the next 10 years of influence, and iterative to accommodate changes through the Implementation Roadmap and Indicator Framework.	Rigidity can impede innovation and potential advances in conservation may be missed with negative impacts on nature conservation.	All
Conservation Decision-making	Decision-making parties have been designated, have the resources to function effectively, and comply with relevant planning/conservation policy.	Implementation is stalled or deprioritised; targets lose momentum, and outputs and outcomes are not reached.	All
	Communication channels among conservation planners and practitioners are established, have the resources to function effectively, and have access to most up-to-date conservation evidence for decision-making.	Implementation is stalled, deprioritised or stopped; targets lose momentum, and outputs and outcomes are not reached.	All
Funding Stability	New financing mechanisms (*e.g.* restoration contributions) are secure, legislated, and used as intended.	Key restoration and conservation programs lack funding; outcomes delayed or compromised.	T7→
	Government has an appetite to allocate funding through existing financing mechanisms (e.g. internal annual government budget process) for needs outside of business as usual to deliver actions of the Strategy (over 10 yrs).	Key actions to achieve targets lack funding; outcomes delayed or compromised.	Multiple
	PCA's have the budget and resourcing to create appropriate educational and interpretive experiences.	Key education programs lack funding; outcomes delayed or compromised.	T9→

Theme	Assumption (pre-condition)	Implication	Causal Pathway
Agency Engagement and Capacity	Decision-makers and key delivery partners (like PCS and planning agencies) are resourced, informed, and willing to act.	Key partners are not incentivised or able to contribute and siloes persist and reduce coordination. Implementation is stalled, deprioritised or stopped; targets lose momentum, and outputs and outcomes are not reached.	All
Leaseholder and Developer Cooperation	Stewardship schemes, offset delivery, and urban biodiversity initiatives receive strong uptake and support from private leaseholders and developers, and sufficient trust, and compliance is achieved to deliver effective conservation.	Key actions (e.g. PCA management on leased land) are not implemented at scale.	T6→
Ngunnawal-led Structures	Ngunnawal governance, access protocols, and co-management structures are operational, culturally safe, and resourced.	Cultural values are marginalised; the Strategy fails to meet its commitment to First Nations leadership.	T9→
	Ngunnawal community have the capacity to participate in Strategy implementation.	Progress towards meeting targets and associated Closing the Gap Priority Reforms to work toward genuine partnerships is stalled and opportunities are lost.	T9→
Urban Growth Pressures	Planning mechanisms effectively manage the pace and scale of urban development to protect PCAs and biodiversity.	Development outpaces conservation, fragmenting habitats, undermining restoration efforts, and not meeting a Nature Positive vision for the ACT.	T5→
	Planning agencies are aware of the NC Act and NCS, view its impact goals as legitimate, and are motivated and have capacity to enforce or to comply.	Key Planning documents are not aligned with environmental management objectives and a Nature Positive vision.	T5→
Climate Leadership	Senior leaders drive climate adaptation across all agencies.	Climate change adaptation knowledge, expertise, and resources aren't shared, and agency and climate resilience are stalled or deprioritised.	All
Climate Impact Pace	Climate change does not accelerate beyond the Strategy's capacity to adaptively respond.	Restoration and adaptation investments become ineffective or obsolete.	All
Data Infrastructure	Data collection, management and access systems are developed, functional, and trusted.	Lack of standardised data and management/storage systems affects accuracy of reporting against progress.	T4→
	Data are accessible, maintained, and integrated across systems over the Strategy life.	Data gaps and siloed information reduce coordination, monitoring, and community participation.	T4→
Technical and Scientific Capacity	The ACT maintains and builds the policy, ecological, cultural, and climate expertise needed to deliver, monitor, and adapt Strategy actions.	Gaps in evidence, modelling, and delivery capacity reduce effectiveness and credibility.	All
	Experimentation, novel interventions, and innovative tools and approaches are encouraged and supported.	Innovation is stifled and implementation may stall or be less effective.	T6→

Theme	Assumption (pre-condition)	Implication	Causal Pathway
Evaluation and Reporting	All conservation programs should allocate a portion of funding to data evaluation, use and reporting.	Not using data to evaluate and report on a program inhibits adaptive management ability, and program may be ineffective.	T3→
Community Trust and Support	Broad public support exists for conservation regulation, land-use controls, and nature-positive investment.	Political and social resistance limits policy effectiveness and/or resourcing.	T6→, T9→, T13→
	People feel empowered to care for nature.	Disconnection from nature is a barrier to conservation success and social resistance limits policy effectiveness and/or resourcing.	T9→
Science Relevance	Conservation is based on current and accurate climate and ecological data.	Outdated scientific data and evidence has nil/negative impacts on nature conservation.	T5→T10
Restoration Feasibility	Restoration interventions are effective, context-specific, and based on up-to-date benchmarks and ecological evidence.	Ecological restoration is not successful, and a Nature Positive vision is not achieved.	T5→T12, T12→T18, T12→T19
Legal Enforcement Capability	Conservation laws and designations (e.g. PCAs, critical habitat, offsets) are enforceable and enforced consistently.	Key protections are undermined by absent, weak or inconsistent enforcement.	T5→
Policy Primacy and Alignment	ACT agencies understand the primacy of the Nature Conservation Act and NCS goals in relation to other planning and infrastructure frameworks.	Conflicting policies or approvals compromise conservation outcomes.	All
	Internal Directorates, agencies and business units are aware of the NCS and are considering relevant targets in their future plans, such as when undertaking reviews of legislation, strategies, and plans.	Conflicting legislation or policies aren't contributing and compromise the Strategy's Nature Positive vision for the ACT.	All
	Appropriate conservation laws and policies are enacted and not regressed over time.	The Strategy's Nature Positive vision isn't supported and implementation is stalled or stopped without an aligned legislative basis.	All
	Decision makers are aware of hierarchy and primacy of relevant plans, policy and legislation through a resource that articulates precisely where conservation legislation fits in relation to other laws.	Implementation of the Strategic Targets could be jeopardised (stalled or completely stopped) through conflicts with existing legislation or other policies and unable to be implemented.	T10→
Cross-partner Alignment	Community and institutional actors align their work with the NCS direction and outcomes.	Resistance from external actors limits policy effectiveness and resourcing, with community interest and capacity integral to achieving a Nature Positive vision.	All
	Our volunteer community has strong interest and uptake of spatially enabled decision support tools, internal capacity for supporting its use is maintained.	Resistance from external actors limits policy effectiveness and/or resourcing, with volunteer capacity integral to achieving a Nature Positive vision.	T9→
Communication Systems Exist	Knowledge-sharing platforms and pathways exist and are actively maintained.	Ineffective communication reduces avenues for actors to invest and implement the Strategy, and implementation is stalled or deprioritised; targets lose momentum, and outputs and outcomes are not reached.	T16

Appendix C: NCS Governance Framework

Supporting strategies and plans relevant to the NCS and its strategic targets.

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
ACT Native Grassland Conservation Strategy and Action Plans	Nature Conservation	Guidance on the conservation of native grasslands and component species in the ACT, consistent with the Nature Conservation Strategy.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 10b; 11a; 13; 14a; 14b; 15c; 17; 18b; 18c; 18d; 19a; 19b; 20; 21
ACT Native Woodland Conservation Strategy and Action Plans	Nature Conservation	Guidance on the conservation of native woodlands and component species in the ACT, consistent with the Nature Conservation Strategy.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 10b; 11a; 13; 14a; 14b; 15c; 17; 18b; 18c; 18d; 19a; 19c; 20; 21
ACT Aquatic and Riparian Conservation Strategy and Action Plans	Nature Conservation	Guidance on the conservation of aquatic and riparian areas and component species in the ACT, consistent with the Nature Conservation Strategy.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 10b; 11a; 13; 14a; 14b; 15c; 17; 18b; 18c; 18d; 19a; 19b; 20; 21
ACT Native Species Conservation Plans	Nature Conservation	To protect and recover threatened species, including strategies to improve conservation trajectory in the ACT.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 10b; 11a; 13; 14a; 14b; 15c; 17; 18b; 18c; 18d; 20
ACT Key Threatening Process Action Plans	Nature Conservation	Outline strategies to address processes that threaten native species and ecological communities.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 10b; 14a; 14b
ACT Controlled Native Species Management Plan	Nature Conservation	Sets the approach for maintaining wild populations of identified native species in the ACT while managing their environmental, economic and social impacts and ensuring their welfare.	Nature Conservation Act 2014 (ACT)	1a; 1b; 3; 5a; 5b; 10a; 14a; 14b
ACT Nature Conservation Conservator Guidelines	Nature Conservation	Specific guidelines for managing native flora and fauna, particularly for protection of native animals and management of development sites to ensure ecological integrity within the ACT.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 10a; 14a; 14b
ACT 2023 State of the Environment Report (SoE)	Science and Evidence	Statutory requirement to provide the ACT community and Government with commentary and analysis about the environment in the ACT.	Commissioner for Sustainability and the Environment Act 1993	4a; 4b; 5a; 5b; 16a
EPSDD Science Plan 2020-2025	Science and Evidence	Outline the Directorate's science investment, highlight its research and monitoring priorities, and provide a structured framework for developing and applying a robust scientific evidence base to underpin its work and decision-making.	EPSDD Science Plan 2020-2025	4a; 4b; 4c; 5a; 5b; 16a; 20
Biodiversity Research and Monitoring Program (BRAMP)	Monitoring and Research	Provide long-term, evidence-based understanding of ecosystem health and guide conservation policy and management decisions.	Nature Conservation Act 2014 (ACT)	4a; 4b; 4c; 5a; 5b; 11a; 16a; 16b; 19d; 20
Canberra Nature Park Reserve Management Plan 2021	Reserve Management	Guide long-term reserve management for all Canberra Nature Park reserves, including ecological and cultural values, and provide for public use for recreation, education and research.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 21
Namadgi National Park Plan of Management 2010	Reserve Management	Guide the management to ensure the protection and appropriate use of Namadgi National Park for conservation and recreation.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 22

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
Lower Cotter Catchment Reserve Management Plan 2018	Reserve Management	Guide the management of the Lower Cotter Catchment area to support nature conservation, water quality, research, and educational activities.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 23
Nature Conservation (Molonglo River Reserve Management Plan 2019)	Reserve Management	To protect the river, diverse habitats, wildlife corridors, heritage sites, and recreation areas within the reserve, focussing on conserving native animals and plants, including restoration.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 24
Planning and Development (Jerrabomberra Wetlands Nature Reserve) Plan of Management 2010	Reserve Management	Consider public expectations, new and proposed land uses on adjacent lands and waters, and statutory requirements relevant to the management of the reserve for environmental quality.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 25
Land (Planning and Environment) Murrumbidgee River Corridor Plan of Management 1997	Reserve Management	Guide the management of the Corridor to enhance its conservation, educational and recreational values.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 26
Tidbinbilla Plan of Management 2012	Reserve Management	Identifies the values of the area and sets out objectives, policies and actions which aim to protect natural and cultural values, and provide for research, education and recreation.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 27
Googong Foreshores Land and Conservation Management Plan 2020	Reserve Management	To protect a source of raw water for ACT and Queanbeyan communities, and maintain its natural and cultural heritage values, and provide for education and community engagement.	Canberra Water Supply (Googong Dam) Act 1974	1a; 1b; 10a; 14a; 14b; 17; 18a; 18b; 18c; 19a; 19b; 19c; 21
Ginini Flats Wetland Complex RAMSAR site Management Plan	Reserve Management	To conserve the wetland, protect its biodiversity, and mitigate threats like fire, hydrological changes, invasive species, and climate change.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 20; 21
Mulligans Flat Strategy 2050	Reserve Management	Management of Mulligans Flat as a nature reserve, with a vision for a thriving grassy woodland on the edge of Canberra: a place for nature, community, culture and learning to flourish.	Nature Conservation Act 2014 (ACT)	1a; 1b; 5a; 5b; 9a; 9b; 9c; 10a; 10b; 11a; 11b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 21
Ginninderry Conservation Corridor 2018 - 2023 Management Plan	Reserve Management	Guide the management of the Corridor to high standards of biodiversity conservation, cultural heritage conservation and sustainable recreational use.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 10a; 10b; 11a; 13; 14a; 14b; 17; 18a; 18b; 18c; 18d; 19a; 19b; 19c; 20; 21
Strategic Plantation Management Plan 2017-2022	Forestry	A cooperative and strategic approach to managing pine plantations in the ACT, ensuring sustainable management, balancing social, economic, and environmental outcomes.	Planning Act 2023 (ACT)	1a; 1b; 5a; 5b; 9a; 10a; 14a; 14b
ACT Tourism Strategy	Parks and Recreation	Sets a vision of a thriving, sustainable destination that benefits Canberrans, with a focus that considers our community (cultural and social), our place (environmental), our economy and our visitors.	-	1a; 1b; 5a; 5b; 10a
ACT Parks and Conservation Visitor Experience Strategy	Parks and Recreation	Guide the delivery of quality visitor experiences across ACT parks and reserves, supporting recreation, education, and tourism.	-	1a; 1b; 9a; 9d; 16c
ACT Aboriginal and Torres Strait Islander Agreement 2019-2028	First Nations	Commitment of the ACT Government and the Elected Body to deliver real outcomes that improve the health and wellbeing of Aboriginal and Torres Strait Islander people in Canberra.	Human Rights Act 2004	9b; 15a; 15b; 15c

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
Innovate Reconciliation Action Plan (RAP) July 2023 – June 2025	First Nations	Ongoing and strengthened partnership with the Ngunnawal and other local First Nations peoples, achieved through the conservation of our shared environment, our rich heritage, and our cultures through careful management of the ACT's parks and reserves.	Reconciliation Action Plan (RAP) Framework	9b; 15a; 15b; 15c
ACT Heritage Strategy	Heritage	Recognise, conserve and manage the ACT's natural, cultural and First Nations heritage for current and future generations.	Heritage Act 2004 (ACT)	5b; 9c; 10a
Strategic Bushfire Management Plan (SBMP)	Fire Management	Guide agency and community preparation and response for bushfires, to apply best practice to bushfire management and prevention practices in the ACT in a changing environment.	Emergencies Act 2004	5b; 10a; 14b; 19a
ACT Regional Fire Management Plan (RFMP) 2019-2028	Fire Management	Detail the major fire fuel management, fire access management and fire infrastructure management strategies for land managed by ACT Government agencies in CED (PCS and TCCS).	Emergencies Act 2004	5b; 10a; 14a; 14b; 15a; 15b; 19a; 21
ACT Bushfire Operations Plan (BOP)	Fire Management	Detail the specifics of fuel reduction, access and infrastructure activities proposed to be undertaken by the landholder for all unleased territory land or land occupied by the Territory.	Emergencies Act 2004	5b; 10a; 14a; 14b; 15a; 15b; 19a; 21
Ecological Guidelines for Fire, Fuel and Access Management Operations	Fire Management	Identify practices to protect ecologically sensitive areas, as well as potentially damaging activities which should be avoided during fire prevention activities.	Emergencies Act 2004	5b; 10a; 14a; 14b; 15a; 15b; 19a; 21
ACT and Region Catchment Strategy 2016-46	Water Resource Management	Guide priority actions for Government, community and industry to work together to produce a healthy, productive, resilient and liveable catchment region.	Water Resources Act 2007 (ACT)	10a; 14a; 14b
ACT Water Strategy 2014-2044: Striking the Balance	Water Resource Management	Ensure water security, quality, and catchment health.	Water Resources Act 2007 (ACT)	10a; 14a; 14b
ACT Healthy Waterways Program	Water Resource Management	Improve urban stormwater quality and ecosystem health.	Water Resources Act 2007 (ACT)	10a; 14a; 14b
Aboriginal Waterways Assessment Program	Water Resource Management	Provide a tool to consistently measure and prioritise river and wetland health so that Traditional Owners can more effectively participate in water planning and management.	Water Act 2007 (Cth)	10a
ACT Biosecurity Strategy and Implementation Plan 2016-2026	Biosecurity	Minimise the impacts of weeds, pest animals, and diseases.	Biosecurity Act 2023	2a; 2b; 3; 4a; 4b; 4c; 5b; 10a; 10b; 14a; 14b; 17; 18a; 18b; 18c; 18d
Invasive Plants Operations Plan 2020-2025	Weed Management	Manage and prevent the spread of invasive plants on ACT public land, to mitigate the negative impacts of these plants on biodiversity and socio-economic activity, while also restoring impacted areas.	Biosecurity Act 2023	2a; 2b; 3; 4a; 4b; 4c; 5b; 10a; 10b; 14a; 14b; 17; 18a; 18b; 18d
ACT Pest Animal Management Strategy 2012-2022	Pest Management	Manage pest animals to protect biodiversity and productivity.	Biosecurity Act 2023	2a; 2b; 3; 5b; 10a; 10b; 14a; 14b; 17; 18a; 18c; 18d
Caring for Dhawura Ngunnawal: A Natural Resource Plan for the ACT 2022-2042	Natural Resource Management	Manage land, water, biodiversity, and cultural assets; promote cultural connections; encourage participation in conservation.	ACT Natural Resource Management Policy	3; 5b; 6a; 6b; 10a; 10b; 12a; 13; 14a; 14b; 15a; 15b; 15c; 17; 18a; 18c; 18d; 20; 21

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
Land Management Agreements (LMAs)	Rural Land Management	Establish appropriate sustainable agricultural management practices and good farm biosecurity while maintaining ecological and cultural values present on the land.	Planning Act 2023 (ACT)	5b; 6a; 6b; 10a; 10b; 12a; 13; 14a; 14b; 15c; 17; 18a; 18d; 20; 21
Canberra Region Local Food Strategy 2024-2029	Agriculture and Food Production	Set a new approach from the ACT Government to how we value local food production as part of delivering on our vision for Canberra as a vibrant, liveable, affordable and climate-resilient city.		10a
ACT Environmental Offsets Policy	Environmental Offsets	To avoid and minimize harm to important ecological areas, or if unavoidable impacts occur, implement offsets to ensure no net biodiversity loss (currently not in force).	Planning Act 2023 (ACT)	7; 10a
Environmental Offsets Management Plans (OMPs)	Environmental Offsets	Guide specific management actions for environmental offset sites, including establishing protected areas, research and monitoring, and actions to maintain or enhance ecological values.	Planning Act 2023 (ACT)	3; 4a; 4b; 4c; 5a; 5b; 10a; 10b; 14a; 14b; 15c; 17; 18a; 18d; 19a; 19b; 19c; 20; 21
ACT Planning Strategy 2018	Urban Planning	Build a sustainable, competitive and equitable city in the landscape and the National Capital, while being responsive to the future and resilient to change.	Planning Act 2023 (ACT)	5b; 10a; 11b; 12b; 14a; 14b; 19b; 19c
The Territory Plan	Urban Planning	The key statutory planning document, providing the policy framework for the administration of planning, land use change and development in the ACT.	Planning Act 2023 (ACT)	5b; 10a; 11b; 12b; 14a; 14b; 19b; 19c
District Strategies	Urban Planning	Manage and shape growth across the ACT's nine districts over coming decades, in line with the overarching ACT Planning Strategy, by defining each district's future planning trajectory based on its distinctive character, needs, and priorities.	Planning Act 2023 (ACT)	5b; 10a; 11b; 12b; 14a; 14b; 19b; 19c
East Lake Place Plan	Urban Planning	Establish the vision and key design principles to guide future planning, design and urban renewal of East Lake, including protecting the surrounding Jerrabomberra Wetlands.	Planning Act 2023 (ACT)	10a
Biodiversity Sensitive Urban Design Guidelines (BSUD) 2024	Urban Design	Provide guidance on how to consider and address biodiversity alongside socio-economic considerations early in the urban planning and design process, to protect nature and connect people to nature.	Planning Act 2023 (ACT)	6c; 9a; 10a; 14a; 14b
ACT Practice Guidelines for Water Sensitive Urban Design	Urban Design	To integrate the management of the urban water cycle into urban planning and design.	Planning Act 2023 (ACT)	10a; 14a; 14b
ACT Urban Design Guide 2024	Urban Design	Address public space, streetscape and built form interface outcomes at a range of scales.	Planning Act 2023 (ACT)	10a; 14a; 14b
City Centre Urban Design Guide 2024	Urban Design	Provide a place specific guide for additional support to deliver high quality best-practice design outcomes for the City Centre.	Planning Act 2023 (ACT)	10a; 14a; 14b
Environment Protection Guidelines for Construction and Land Development in the ACT	Land Development	Provide clear guidance and practical advice to land developers and builders undertaking civil construction and building works to determine the most appropriate environment protection control measures for primary environmental issues.	Environment Protection Act 1997	6c; 10a; 14a; 14b
Construction Environmental Management Plan (CEMP)	Land Development	Outline how construction projects will manage and mitigate environmental impacts to preserve biodiversity, maintain ecological balance, and safeguard sensitive habitats.	Environment Protection Act 1997	6c; 10a

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
Municipal Infrastructure Standards (MIS) and Technical Specifications	Infrastructure	Provide specific technical design guidance for civil and open space assets for consistency in the ACT, including plant species for urban projects and the design of urban open spaces.	Planning Act 2023 (ACT)	10a
Urban Forest Strategy 2021-2045	Land Planning and Management	Grow a resilient, diverse, and sustainable urban forest, supporting biodiversity.	Planning Act 2023 (ACT)	5b; 6a; 10a; 14a; 14b; 18a; 21
Urban Open Space Land Management Plan	Public Urban Land	Guide the management of ACT Government's public urban open space network, to improve the amenity of Canberra's urban environment and protect cultural, social, and environmental values.	Planning Act 2023 (ACT) (UOS LMP declaration pending)	5b; 6a; 10a; 10b; 11a; 12b; 13; 14a; 14b; 15c; 17; 18a; 18b; 18c; 18b; 19a; 19b; 19c; 21
ACT's Nature Strip Guidelines	Public Urban Land	Help Canberra residents determine what types of activities can be undertaken on a nature strip, such as planting native grasses, and when approval is required, such as relating to trees on public land.	Public Unleased Land Act 2013	10a
Canberra Urban Lakes and Ponds Land Management Plan	Public Urban Land	Guide the management of Canberra's urban waterbodies in a manner responsive to a range of environmental and community values.	Planning Act 2023 (ACT)	10a
SLA Sustainability Strategy 2021-2025	Urban Design	Provide a strategic framework for planning, decision-making and actions that will improve the environmental sustainability of projects and help us deal with the environmental challenges.	Planning Act 2023 (ACT)	5b; 10a; 10b; 14a; 14b; 19b; 21
SLA Placemaking Strategy (2021)	Urban Design	Guides the agency's approach to creating vibrant and sustainable communities in Canberra, including supporting a healthy environment.	Planning Act 2023 (ACT)	10a
National Capital Plan	Land Planning and Management	Ensure Canberra and the Territory are planned and developed in accordance with their national significance and respecting environmental values.	Australian Capital Territory (Planning and Land Management) Act 1988 (Cth)	5b; 10a; 14a; 14b; 19b; 19c; 21
City and Gateway Urban Design Framework	Land Planning and Management	Set principles to achieve well designed urban infrastructure, public places and streets for Canberra's gateway corridor to the city centre, designed for people and protect the environment.	Planning Act 2023 (ACT)	5b; 10a; 19b; 19c; 21
NCA Tree Management Policy	Land Planning and Management	Enhance Canberra's treescape by increasing canopy cover, improving species and age diversity, and ensuring proactive management and protection of trees to build resilient landscapes.	Australian Capital Territory (Planning and Land Management) Act 1988 (Cth)	10a; 19c; 21
NCA Lake Burley Griffin Water Quality Management Plan	Land Planning and Management	Manage the Lake for the protection of water quality, and to protect the lake as an important visual, recreational and environmental feature of the National Capital for current and future generations.	Australian Capital Territory (Planning and Land Management) Act 1988 (Cth)	10a
EPSDD Strategic Plan 2022-2025	Land Planning and Management	Balance ACT Government's commitment to planning and delivering a compact and efficient city with the environment, climate change, our heritage and relationship with First Nations people.	Planning Act 2023 (ACT)	5b;8a; 8b; 10a
ACT Disaster Resilience Strategy 2024-2030	Resilience	Enhance the Territory's ability to withstand and recover from disasters, minimising the impacts of events like bushfires, floods, and extreme heat.	Emergencies Act 2004	8a; 8b; 10a; 14a; 14b
ACT Regional Drought Resilience Plan	Resilience	Build drought resilience across the region's agricultural sector and allied industries.	Future Drought Fund Act 2019 (Cth)	8a; 8b; 10a; 14a; 14b

Strategy / Plan	Focus Area	Key Objectives	Primary Relevant Legislation	Relevant NCS Target(s)
Canberra's Living Infrastructure Plan: Cooling the City	Urban Resilience	Guide planning, design, construction and management of our city in a way that safeguards the functioning of our landscape and the natural systems that it supports and Canberrans depend on.	Planning Act 2023 (ACT)	5b; 10a; 14a; 14b; 15c; 21
ACT Climate Change Strategy 2019-2025	Climate Change	To mitigate and adapt to the effects of a changing climate, to build climate resilience and achieve net zero emissions by 2045.	Climate Change and Greenhouse Gas Reduction Act 2010 (ACT)	8a; 8b; 10a; 14a; 14b; 21
ACT Renewable Energy Industry Development Strategy	Renewable Energy	Support local industry development and achieve renewable energy targets.	Climate Change and Greenhouse Gas Reduction Act 2010 (ACT)	10a
ACT Waste Management Strategy 2011-2025	Waste Management	Promote resource recovery and reduce landfill, protecting the ACT's natural resources.	Waste Management and Resource Recovery Act 2016 (ACT)	10a
ACT Circular Economy Strategy and Action Plan 2023-2030	Circular Economy	Transition the ACT towards a more sustainable and resource-efficient economy by minimising waste and pollution, keeping materials in use, and regenerating natural systems.	Circular Economy Act 2023	10a
ACT Wellbeing Framework	Wellbeing	Guide whole-of-government prioritisation and initiatives to lift the quality of life of all Canberrans, with indicators to help us know where wellbeing is improving or diminishing in the ACT over time.	Human Rights Act 2004	10a

ACT Government

Supplements to the ACT Nature Conservation Strategy 2026–2036

Supp. A Climate adaptation for nature conservation in the ACT

Supp. B Landscape-scale conservation for a Nature Positive ACT

Supp. C Effective restoration practice in the ACT

City and Environment Directorate

ACT Government

Supplement A to the ACT Nature Conservation Strategy 2026–2036

Climate adaptation for nature conservation in the ACT

This supplementary document translates the NCS vision for a connected Nature Positive landscape into policy and technical guidance to support proactive, accountable, and coordinated decision-making.

City and Environment Directorate

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Climate adaptation for nature in the ACT

This supplementary document translates into action the Nature Conservation Strategy (NCS) vision to ensure *Canberra is a city thriving within a healthy and flourishing natural environment, where the aspirations for conserving nature reflect Canberrans' love for their bush capital*. To achieve the NCS goals, and to give nature the best chance of success in the face of climate change, conservation must embed a climate change adaptation lens.

This supplement lays the foundation for how to adapt to climate change impacts by embedding a climate change adaptation lens into nature conservation. It aims to provide conservation partners with information and tools to support climate-adaptive and anticipatory decision-making and planning.

What is climate change adaptation?

Tackling climate change involves two key approaches: **mitigation** and **adaptation**.

Mitigation means reducing the causes of climate change – mainly by cutting greenhouse gas emissions, and by increasing natural systems that absorb like carbon, forests, wetlands, and healthy soils.

Adaptation means taking action – whether by individuals, communities, or governments – to deal with the effects of today's changing climate, and to anticipate and prepare for additional changes projected for the future. This requires understanding current impacts and anticipating future changes.

Adaptation actions will be taken at different scales and could include adjustments to strategies and plans, targeted investments, building knowledge in particular areas, or changing policies and on-ground management strategies. Some actions will be adjustments to business as usual, others will involve more significant changes in management and decision making.

Some actions, such as restoring native vegetation and protecting healthy ecosystems can contribute to both mitigation and adaptation. There are important co-benefits and strategic overlaps between emissions reduction and climate adaptation for nature. Mechanisms such as biodiversity and carbon offsets present opportunities to simultaneously advance adaptation objectives while contributing to mitigation targets. Integrating these approaches can enhance ecological resilience and deliver more holistic climate outcomes.

Why does climate change adaptation matter?

Adaptation for nature is critical to protect nature and the places we value in the ACT.
Climate change is already affecting nature in the ACT. Reducing emissions contributes to efforts to limit the rate of global climate change and avoid the worst impacts of climate change. However local climate change adaptation is also essential to reduce the impacts of climate changes that are already being experienced, and future impacts that cannot be avoided by mitigation. The future climate and its impacts on nature will not resemble the past. Failure to anticipate and adjust to these changes could be costly.

That's why adaptation is just as important as mitigation—it helps communities, ecosystems, and infrastructure cope with the changes that are already underway. Adaptation is an ongoing process - it isn't something that happens once and is finished. All areas of nature conservation need to take it into account when developing and implementing policies, plans, and on-ground management.

The cost of not adapting is likely to be extremely high. Investing in adaptation actions now will be more cost-effective, easier, and more effective compared to postponing action.

How is climate change impacting nature in the ACT?

The ACT's climate has changed in recent decades, becoming warmer, drier, and facing increasing bushfire risk. The ACT and wider NSW regions have already warmed by 1.4°C since national records began in 1910. Temperatures in the ACT and New South Wales have warmed 1.4 times the global average[12]. Climate change has already pushed many impacts – extreme temperatures and weather events – outside the range of recorded recent natural variability.

In the ACT, we are currently experiencing, and are projected to experience with increasing intensity, the following impacts:

- Increased extreme heat
- Increased temperatures, during the day and night, in summer and in winter
- Increased severe fire weather, and more fire in the landscape
- Changes to rainfall, with irregular and intense rainfall events and extended periods of drought
- More frequent and intense weather events
- Changes to waterway flows, levels, and regimes
- Increased rainfall variability

By 2090, without significant reductions in global emissions, average temperature is likely to increase 3.7°C and average rainfall is likely to decrease 12.9%, with run-off decreasing by a larger amount. Temperature and rainfall extremes will extend well beyond these averages. Climate change is bringing major challenges for conservation in the ACT, with wide-ranging impacts on nature and biodiversity. Our current systems are under pressure, and adapting how we care for the environment will help protect biodiversity and strengthen ecosystem resilience.

It is increasingly important to consider short, medium, and long-term climate change impacts in conservation decisions. We can start with practical, step-by-step improvements that build on what is already working, but making sure this action sets us up to develop and implement more significant policy and management shifts if they are needed over time. Without climate action, we risk falling short of national strategic goals—like protecting and conserving 30% of Australia's landmass by 2030[13]. By planning ahead and adapting early, we can better protect nature for future generations.

[12]Climate change in Australia. Accessed 24/6/2025 at: https://www.climatechangeinaustralia.gov.au/en/changing-climate/future-climate-scenarios/global-warming-levels/australian-warming/

[13] Australia's Strategy for Nature 2024-2030, Commonwealth of Australia 2024.

Widespread and significant changes in ecosystems are occurring and further change is inevitable. Climate change will increase the pressure on nature in the ACT, by exacerbating existing threats and introducing new ones. Climate change is likely to impact:

- **Distribution:** Climate-sensitive ecosystems will shrink or vanish, while more tolerant ecosystems may expand
- **Composition:** Native species may decline, with increases in invasive plants and pests
- **Structure:** Dominant species like eucalypts may be lost, and ecosystems may no longer resemble their current structure
- **Function:** Some ecosystems will no longer provide suitable habitat for species or may not provide the same ecosystem services like pollination, water filtration or carbon storage

In addition to warming and changes to rainfall, increases in carbon dioxide in the air also directly affect how plants grow.

Many climate change impacts will be cumulative such as reduced rainfall stressing plants and warmer temperatures favouring pathogens. Climate impacts also compound with other risks such as habitat loss and fragmentation, overgrazing, altered bushfires, weeds and pests. Compounding risks occur when multiple climate hazards happen simultaneously or close together, intensifying their combined impact. The expected cycle of alternating between more intense drought and wet years is likely to promote the growth and spread of invasive weeds, including new weed species from outside the ACT region.

Other changes may include changes in the seasonality of species and acceleration of environmental degradation and biodiversity loss[14]. As a result of climate change, threatened species will have a much higher chance of going extinct, and many more species may become threatened.

As the climate changes, conservation will increasingly involve managing change and ecological transformation. Ecological transformation is *"the dramatic and effectively irreversible shift in multiple ecological characteristics of an ecosystem, the basis of which is a high degree of turnover in ecological communities"*[15]. Ecological thresholds are already being exceeded, leading to the potential for widespread and rapid transformation of our ecosystems. Modelling suggests ecological change will be significant and widespread, driven by the amount of climate change that is projected to occur towards the end of the century[16] [17]. We will need to continue managing many current threats, but also understand and prepare for the new challenges arising from the prospect of widespread and rapid transformation of our ecosystems.

[14] Michael J. Drielsma, et al. (2017). Bridging the gap between climate science and regional-scale biodiversity conservation in south-eastern Australia, *Ecological Modelling*, Volume 360, (343-362).

[15] Schuurman et al. (2021) Navigating Ecological Transformation: Resist–Accept–Direct as a Path to a New Resource Management Paradigm.

[16] Ferrier S., Harwood T. & Williams K. J. (2012) Using Generalised Dissimilarity Modelling to assess potential impacts of climate change on biodiversity composition in Australia, and on the representativeness of the National Reserve System. CSIRO Climate Adaptation 62 Flagship Working Paper No. 13E. http://www.csiro.au/en/Organisation-Structure/Flagships/Climate-Adaptation-Flagship/CAF-working-papers.aspx

[17] Hilbert D. W. & Fletcher C. S. (2012) Using artificial neural networks to assess the impacts of future climate change on ecoregions and major vegetation groups in Australia. CSIRO Climate Adaptation Flagship Working Paper No. 13H.

What climate change impacts are already occurring or likely to occur?

- Changes and loss of alpine and sub-alpine ecosystems, including negative changes in the composition and stability of alpine and subalpine environments resulting in a loss of these ecosystems is a key risk for natural environment in the ACT[18]
- Forests that require long periods between fires to regenerate will be affected by more frequent fires – Alpine Ash forests in Namadgi
- Animals such as the Grey-headed Flying Fox are being pushed to their thermal limits during extreme heat events, causing mass die offs in some areas of Australia
- Temperate grassy and woodland ecosystems are likely to undergo structural changes, potentially with declining trees due to moisture stress and altered shrub-grass balance[19]
- Reduced stream flows and wetland conditions

What is climate change adaptation for conservation?

As the climate and our landscapes change, we will need to adapt the way we do conservation in the ACT. There are two parallel things we need to do:

1. **Support species and ecosystems as they respond naturally to the changing climate** by ensuring there is abundant, well connected, environmentally diverse habitat that is free of significant threats such as disturbance and exotic predators and competitors, so that natural process such as behavioural changes, range shifts, and evolution can occur rapidly (Figure 1).
2. **Adapt the way we do conservation and management** by updating our conservation objectives, policies, processes, and management to recognise and integrate the reality of significant ecological change (Figure 1). We can start doing this by applying a *climate lens* and *adaptation tools* (see section on "Out Strategic Approach") to plans, policies, and legislation, and considering how communities' connection to nature in the ACT will be affected. These actions will ensure that we can adjust our research, policies, and aspirations to enable management that effectively supports the environment as it changes.

These two types of adaptation actions are intertwined - both are necessary and require deliberate action. Efforts to resist current pressures – such as habitat loss and invasive species – are likely to remain effective in the near-term and may become even more critical as climate change intensifies. For example, with increased disturbances and dislocation of species ranges and their climatic niches, both available habitat area and habitat without the extra pressure of exotic species will be increasingly important both for the persistence of current native species and those that may be establishing from elsewhere.

[18] Climate Change Risk Assessment for the ACT, 2022.

[19] Webb, B (2011) Impacts of Climate on the Canberra Nature Park: Risks and Responses. Report for the ACT Office of the Commissioner for Sustainability and the Environment.

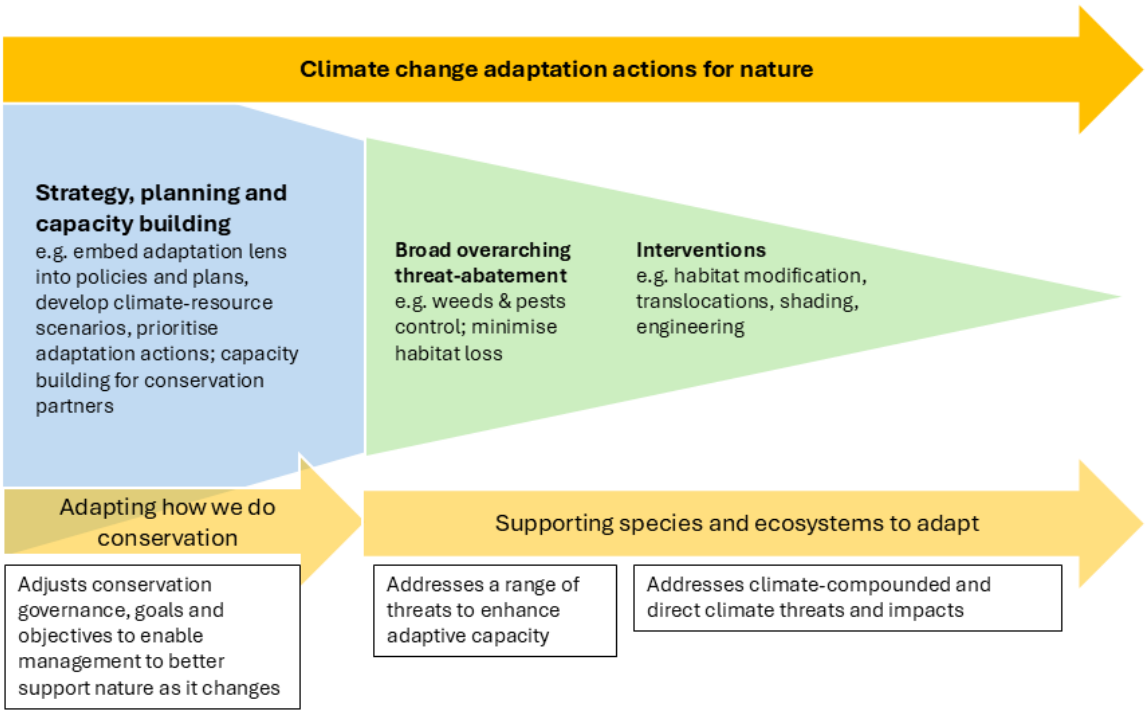

Figure 1: A continuum of different types of climate change adaptation actions for nature[20]

Principles for climate adaptation for nature

A climate change adaptation lens applied to conservation policy and management decisions will help ensure they can effectively anticipate, prepare and respond to the impacts of climate change on nature in the ACT. The ACT Climate Adaptation for Nature initiative co-developed seven principles for climate adaptation for nature. The process of helping nature and conservation management to adjust to climate change will be shaped by:

Principle 1: Learning

Adaptation necessarily involves innovation and experimentation, learning from what works and what doesn't, and responding to new information when it becomes available. The successes and failures of interventions need to be robustly monitored and analysed to draw out lessons and insights and these need to be communicated and shared to foster learning. Adaption also involves learning to think and talk about change and being comfortable with accommodating ambiguities that will arise where a changing future is inconsistent with the way we currently make sense of nature.

Principle 2: Inclusivity

Stakeholders hold diverse values about nature, so inclusive adaptation must engage a wide range of perspectives and knowledge systems. This includes honouring the deep connection many people including Traditional Custodians have with Country and valuing their cultural and ecological knowledge.

[20] Figure Source: Alexandra C & Dunlop M (in prep), adapted from Mason, Claire; Hartog, Jason; NESP 2.7 AdaptLog Core Team (2024): Adaptation Catalogue for Conservation (AdaptLog). CSIRO. http://hdl.handle.net/102.100.100/614570?index=1

Principle 3: Incorporating Ngunnawal knowledge

Adaptation offers a chance to integrate Ngunnawal Traditional Custodians' knowledge into climate-adaptive land management. This must be done with full respect for their intellectual property and cultural rights.

Principle 4: Systems thinking

Viewing our connection to management of nature as a system helps reveal the complex interconnections between ecological, social, and institutional components that need to be addressed in adaptation. This approach prepares us for unexpected interactions and broadens the focus beyond individual assets to entire systems. Systems thinking is an approach to problem-solving that examines the dynamic interactions between multiple connected processes. Using systems concepts in adaptation planning can help reveal relationships, interactions and interdependencies between how we understand nature and change, how we relate to and value nature, and how we make management and other decisions affecting it.

Principle 5: Place based

Ecological impacts of climate change vary by location, and the connections people have to nature are often place-based. Adaptation must be tailored to local contexts, values, and futures. Scenario planning and narrative development can help make local processes and priorities explicit.

Principle 6: Common narratives and visioning

Engaging communities in imagining future scenarios helps identify shared values and guide adaptation choices. This process clarifies trade-offs and acknowledges that preserving current values may not always be possible.

Principle 7: Evidence-based decision making and accommodating uncertainty

There is strong evidence that climate change is having increasing impacts on nature, but there will always be much uncertainty in the detail of future novel changes. Adaptation must be grounded in good data about observed changes and anticipation of future change, but most importantly it needs to enable flexible responses that are effective under different futures and can be updated as new information emerges.

Futures thinking - a forward-facing, long-term approach

Futures thinking is a strategic approach that explores possible, probable, and preferred future scenarios to inform long-term planning and decision-making. Adopting a long-term, futures thinking approach in conservation planning helps anticipate ecological changes and consider compounding and cascading events. By exploring multiple plausible futures (see Box 1), it is possible to identify proactive 'no regrets' adaptation actions that are robust across different possible future climates. In this way, we can adapt to climate change while addressing future uncertainty. It also helps account for the lifetime of a decision, ensuring that decisions we make now that have long-term consequences are made considering future climate change impacts.

Box 1. Scenario planning for conservation

Scenario planning is an adaptation tool widely used in natural resource management and National Parks planning and management. Scenario planning helps conservation managers explore a range of possible futures, rather than relying on a single prediction. By considering different ways climate and environmental conditions might unfold, it challenges assumptions and supports more flexible, resilient decision-making. Scenario planning is a useful approach to use prior to applying RAD. This approach uses a small number of carefully developed scenarios – each representing a distinct set of future conditions – to guide planning and identify strategies that can perform well across a variety of future outcomes.

Resist – Accept – Direct (RAD): a shared climate lens

Resist – Accept – Direct (RAD) is a shared climate lens that helps people grapple with the implications of climate change for conservation management. RAD articulates three types of conservation actions in response to climate change: Resist, Accept, and Direct. The framework helps us be strategic and forward-looking in the intent, design, and choice of actions, rather than base our management objectives, by default, on past baseline conditions and our current aspirations to resist change.

Resist (R) actions are interventions that are intended to maintain ecosystems in their current state, or restore them to a historical state. Resist actions aim to maintain or restore ecosystem composition, structure, processes or function on the basis of historical or acceptable current conditions. Many current conservation actions are Resist oriented. Resist actions will typically be most effective for relatively small amounts of climate change and in restricted situations to seek to maintain very highly valued ecological features.

Accept (A) actions embrace changes that cannot be feasibly resisted or directed, by allowing ecosystem composition, structure, processes and function to change autonomously. Given the scale of climate change, the limitations of conservation efforts, and resource constraints, adopting an 'accept' strategy is likely to become increasingly common. Management approaches may need to evolve to accommodate and embrace these changes."

Direct (D) actions aim to guide the trajectory of ecological change, where resisting is unrealistic, or there is an opportunity to shape a desirable future ecological state. Direct interventions actively shape change in ecosystem composition, structure, processes or function towards preferred new conditions. Most often it will involve nudging the natural direction of change rather than whole-sale ecosystem engineering.

A conservation plan can involve a mixture of activities, resisting some impacts, directing some changes and accepting others, and their emphasis can vary over time.

Climate adaptation in the NCS

Three outputs and four targets directly related to climate change adaptation have been identified in the NCS Theory of Change (Appendix B). Actionable steps to achieve the targets are outlined in Table 1.

Table.1 NCS Outputs, targets and actionable steps related to climate adaptation for conservation

NCS Output	NCS Target	Actionable steps
8. Understanding and capacity to respond to climate risks is developed	8a: Case-based climate change risk assessments are completed	1. Undertake scenario-based climate change vulnerability and risk assessments for key conservation values in the ACT, to identify key risks and vulnerabilities 2. Evaluate climate implications for conservation goals and identify potential adaptation strategies 3. Identify key research gaps to determine research priorities to pursue through research collaborations
	8b: Preparedness, response and recovery planning for priority values is undertaken	1. Develop an assessment of the susceptibility of priority conservation values to bushfire, flood, and extreme heat events 2. Identify key preparedness, response, recovery, and learning actions required to protect and restore these values in the event of an extreme event 3. Identify roles and responsibilities of conservation partners and experts
15. Conservation policies and plans integrate climate adaptation measures	15: Guidance and tools for climate-adaptive planning are developed and used	1. Develop guidance and information to embed climate risk and adaptation principles into conservation policies, plans, and decision-making 2. Identify and share locally relevant data, tools, and case studies 3. Targeted species distribution modelling for high-risk species is scoped 4. Synthesise latest climate adaptation research and translate it into practical insights, tools, and guidance for conservation planning and decision-making.
22. Nature conservation approaches are adapted to a changing climate	22: On-ground climate adaptation measures are prioritised, trialled and evaluated	1. Review and evaluate existing trials 2. Scope and develop a policy for novel environmental management actions 3. Develop a prioritisation framework and select adaptation measures based on (8a) 4. Support mechanisms to build and retain below and above ground carbon stocks with biodiversity benefits

Appendix A: Causal pathways toward climate adaptation

Figure 2 illustrates the causal pathways identified in the NCS Theory of Change that are necessary and sufficient for the achievement of climate adaptation goals of the Strategy. Primary causal links are indicated by dark shading and arrows, supporting causal links are indicated by lighter shading and arrows.

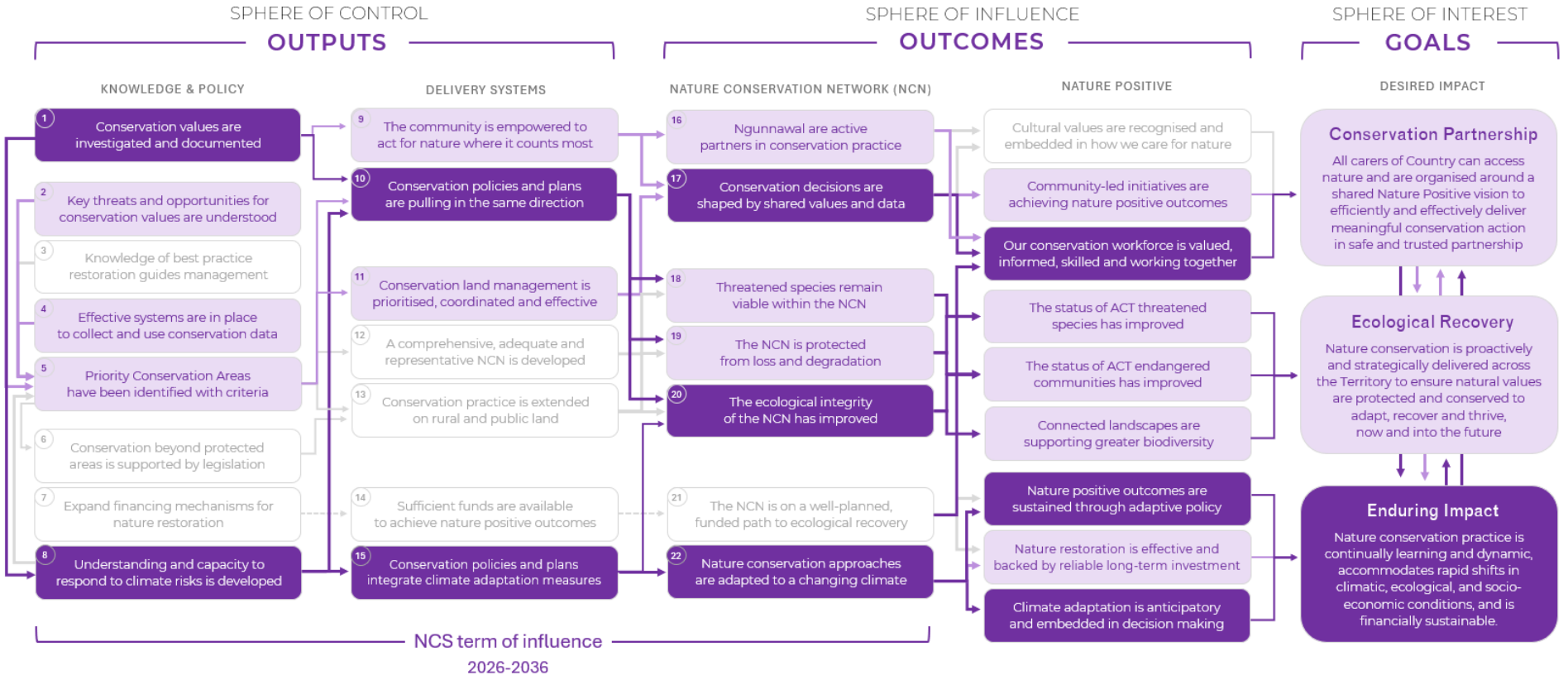

Figure 2. The NCS Theory of Change showing causal pathways for the achievement of climate adaptation goals

Appendix B: Supplement A glossary

Term	Definition
Adaptive Capacity	Adaptive capacity of natural systems refers to an organism's natural ability to respond to climate change—either by making use of emerging opportunities or by minimizing harmful impacts. This capacity differs among species, depending on their unique traits and characteristics. Adaptive capacity of social systems refers to the ability of communities, institutions, and networks to adjust to climate change and other environmental pressures. This includes their capacity to learn, innovate, reorganize, and respond effectively to risks and opportunities
Anticipate	To actively consider and prepare for potential future changes, challenges, or opportunities before they occur. In conservation, anticipating involves using data, trends, and scenario planning to foresee how ecosystems, species, and environmental conditions might respond to climate change, enabling proactive and informed decision-making.
Biodiversity	Is the variability among living organisms from all sources (including terrestrial, marine and other aquatic systems and the ecological complexes of which they are part) and includes diversity within species and between species, and of ecosystem.
Causal Pathway	A backwards mapping from a strategic *goal* through all the long and short-term *outcomes* to the *outputs* needed to achieve it, identifying a logic arrangement of causal links between these.
Climate Change Adaptation	Means taking action, whether by individuals, communities, or governments, to deal with the effects of today's changing climate, and to anticipate and prepare for additional changes projected for the future. This requires understanding current impacts and anticipating future changes.
Climate Change Mitigation	Actions to limit the extent of long-term climate change caused by human emissions of greenhouse gases and by increasing natural systems that absorb like carbon, forests, wetlands, and healthy soils.
Climate Hazard	The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources.
Climate-adaptive	An approach to conservation that anticipates future climate conditions and builds in the capacity to adjust policy and strategy, methods and goals in response to both projected and observed climate impacts. See also: *Climate Change Adaptation*.
Climatic Niche	A specific or ideal climate condition that a species needs to survive and reproduce. For instance- the right temperature range, rainfall levels and other seasonal patterns. Changes in this climate niche forces a species to move and find its climate niche.
Composition	Referred to here is the species composition, which is the total number of different species within a community. It includes richness and diversity.
Conservation Value	The relative value of a parcel of land based on a suite of ecological, social and cultural values.
Critical Habitat	Habitat for a protected matter, species or ecological community that is critical to the long-term survival and recovery of that matter, species or community. An area will only become Critical Habitat if it is formally declared under the *Nature Conservation Act*.
Distribution	Ecosystem distribution is a spatial arrangement and variation of different ecosystem across a region, determined by conditions or factors including climate, topography, human activities. With the climate change, this distribution is going to get affected-climate sensitive ecosystems may shrink or disappear, while climate tolerant ecosystems may expand into other areas.
Ecological Threshold	The point at which there is an abrupt change in an ecosystem quality, property or phenomenon, or where small changes in environmental driver produce large responses in the ecosystem.

Term	Definition
Ecological Transformation	The dramatic and effectively irreversible shift in multiple ecological characteristics of an ecosystem, the basis of which is a high degree of turnover in ecological communities.
Ecosystem Function	It refers to the processes and activities within an ecosystem that are essential for the ecosystem to function properly and provide services that have social, cultural and ecological values.
Environmental Degradation	The decline in the quality, health and functioning of the natural environment due to climate change or combined effects of climate change and other pressures like invasive species or feral animals or bush fires.
Exposure	Exposure to climate change refers to the extent to which a system—such as a species, ecosystem, community, or infrastructure—is subject to climate-related hazards. These hazards can include temperature extremes, changes in rainfall, sea-level rise, bushfires, floods, and other environmental shifts. Exposure is determined by the geographic location and environmental context of the system.
Fragmentation	Fragmentation here refers to Habitat Fragmentation, an umbrella term describing the complete process by which habitat loss or artificial barriers result in the division of large, continuous habitats into a greater number of smaller patches of lower total area, isolated from each other by a matrix of dissimilar habitats and is not just the pattern of spatial arrangement of remaining habitat. A matter gets worse if climate change and habitat fragmentation interact-a fragmented habitat will be isolated and disconnected, limiting species movement and reducing that climate adaptation potential. A connected habitat or landscape is therefore more resilient.
Function	Ecosystem function. It refers to the processes and activities within an ecosystem that are essential for the ecosystem to function properly and provide services having social, cultural and ecological values.
Futures Thinking	Futures thinking is a strategic approach that explores possible, probable, and preferred future scenarios to inform long-term planning and decision-making. In conservation, it helps anticipate how ecosystems, species, and environmental conditions might change under different climate and socio-political pathways. By considering a range of futures, it supports proactive, flexible, and resilient strategies that can adapt to uncertainty and emerging challenges.
Habitat Loss	Habitat loss is the process where a natural environment is unable to support its native species, leading to a decline in biodiversity and potential extinctions.
Intellectual Property	Intellectual property refers to creations of the mind. It could include a brand, logo, invention, design or artistic work, or new plant variety. Indigenous Cultural and Intellectual Property or ICIP refers to the rights of Australia's First Nations (Aboriginal and Torres Strait Islander) peoples to their heritage. (*Definitions from IP Australia* and *Australian Indigenous Cultural & Intellectual Property Protocol, Feb 2023)*
Invasive Species	Introduced plants and animals that can establish quickly and spread to the point of threatening native communities and ecosystems.
Mitigation	Mitigation here refers to climate change mitigation. Actions to limit the extent of long-term climate change caused by human emissions of greenhouse gases and by increasing natural systems that absorb like carbon, forests, wetlands, and healthy soils.
Nature Conservation Network (NCN)	A strategic, cross-tenure network of lands and waters in the ACT under some form of long-term protection or conservation and active conservation management – including green and blue corridors and climate refugia – managed for Nature Positive conservation outcomes. The NCN integrates formal reserves and PCAs beyond the formal protected network – including stewardship lands and urban green and blue space and infrastructure – to deliver functional connectivity and ecological resilience across ACT landscapes.
Nature Conservation Strategy (NCS)	A statement of (1) proposals to protect, manage, restore and conserve native species and significant ecosystems of the Territory, and (2) strategies to address actual and potential impacts of climate change. The NCS also includes anything required to be included by a conservator guideline.
Nature Positive	A term used to describe circumstances where nature – species and ecosystems – is being repaired and is regenerating rather than being in decline.

Term	Definition
Outcomes	Flow-on effects expected to result from our strategic *outputs* interacting with other things happening in the wider world; these may be short to long-term. Outcomes can also be described as pre-conditions for achieving a *goal*.
Outputs	The immediate results of activities within the sphere of control of the Strategy to deliver.
Overgrazing	It is a practice of an animal extensively grazing on the native vegetation that exceeds the land's capacity to regenerate and leads to land degradation.
Protected Area	A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.
Resist–Accept–Direct (RAD)	A framework that helps with decision-making, providing a shared climate lens that helps people grapple with the implications of climate change for conservation management.
Range Shift	Refers to the geographical redistribution of species from their previous boundaries in response to the changing climate conditions. Highly related to climate niche and ecosystem distribution.
Regeneration	The efforts made to restore, renew, or increase the diversity of species and ecosystems in an environment. These efforts are natural-without human intervention, where ecosystems recover on their own or they are human assisted as shown under the ecological restoration approaches (refer to Supplement C).
Resilience	Resilience here refers to ecosystem resilience. The ability of natural areas (ecosystems) to persevere and adjust despite changes and disturbances as a result of changing land use and climate change impacts. Resilience depends upon the continuity of ecological processes, e.g. energy flows, nutrient cycles, hydrological cycles, food webs
Risk	The potential for adverse consequences when something of value is at stake, and the outcome is uncertain. Because the likelihood and impact of climate threats are often uncertain, and people may value those impacts differently, it's helpful to define risk in a broader way.
Scenario Planning	A strategic tool used to explore and prepare for multiple plausible futures by developing narratives or models based on different combinations of environmental, social, and policy drivers. In conservation, it helps decision-makers anticipate how ecosystems, species, and land use might respond under varying climate conditions, enabling more flexible and resilient planning. Rather than predicting a single outcome, scenario planning supports adaptive strategies by considering uncertainty and change.
Sensitivity	Sensitivity to climate change refers to the degree to which a system, whether ecological, social, or economic, is affected by climate-related changes, such as shifts in temperature, precipitation, or extreme weather events.
Species Composition	The total number of different species within a community. It includes richness and diversity.
Species Dislocation	Refers to a situation where a species is moved from its natural habitat or shifts away from its traditional range due to environmental changes.
Structure	Ecosystem structure. It refers to the organization and composition of objects within an ecosystem, such as plant biomass, animal populations, and key elements like nitrogen and phosphorus ratios. It also includes spatial variations, biodiversity, and physical characteristics like size and location.
Systems Thinking	an approach to problem-solving that examines the dynamic interactions between multiple connected processes.
Thermal Limits	They refer to the range of temperatures (not too cold or too hot) within which an organism can survive, function, and reproduce. Beyond these limits, the organisms experience physiological stress that can result into injury and even death.

ACT Government

Supplement B to the ACT Nature Conservation Strategy 2026–2036

Landscape-scale conservation for a Nature Positive ACT

This supplementary document translates the NCS vision for a connected Nature Positive landscape into policy and technical guidance to support proactive, accountable, and coordinated conservation decision-making while enhancing speed and certainty of development approval.

City and Environment Directorate

Authorised by the ACT Parliamentary Counsel—also accessible at www.legislation.act.gov.au

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Landscape-scale conservation in the ACT

There is a compelling need for reform of the ACT's framework for nature conservation to enable more strategic, landscape-scale planning alongside urban development and climate adaptation imperatives; to catalyse more diversified, collaborative approaches to conservation of the environment beyond traditional government-managed areas; and to embed financial sustainability for long-term impact. This supplement is for planners, policymakers, developers, land managers, and the community to operationalise the NCS vision in a complex urban-agricultural landscape. The supplement seeks to align landscape-scale conservation with the **ACT Landscape Plan** and **ACT Planning Strategy**.

What is landscape-scale conservation?

Landscape-scale conservation is a strategic approach that considers entire ecosystems, habitats, ecological processes and services across large geographic areas, rather than focusing on individual sites or species. Broadly, best practice landscape-scale conservation aims to:

- Maintain ecological connectivity (*e.g.,* wildlife corridors)
- Protect biodiversity by conserving and restoring diverse habitats
- Adapt to environmental changes, such as climate change
- Support ecosystem services

This approach requires collaboration among multiple sectors and partners to balance nature conservation goals with land use such as agriculture, development, or recreation.

Why does landscape-scale conservation matter?

Landscape-scale conservation matters because:

- **Ecosystems don't follow boundaries:** Wildlife, water, and ecological processes move across large areas, not just within parks or reserves.
- **It enables reconciliation of multiple competing land uses:** Housing and infrastructure are significant priorities for Canberra, and strategic landscape level planning can enable reconciliation with conservation priorities.
- **It supports cultural and spiritual connections:** Traditional Custodians have deep, long-standing cultural ties to entire landscapes, not just isolated sites.
- **Enhances biodiversity:** Many species need large, connected habitats to survive and reproduce. Fragmented landscapes can isolate populations and lead to decline.
- **Resilience to climate change:** As species shift their ranges due to changing climates, large, connected landscapes help them move and adapt.
- **Sustains ecosystem services:** Clean air, water, pollination, and carbon storage depend on healthy, functioning ecosystems that span large areas.
- **It supports nature's contribution to people:** Whole, functioning ecosystems are a key element of nature's ability to contribute to people's quality of life
- **Efficient conservation investment:** Coordinated efforts across a landscape reduce redundancy and maximise the impact of resources and actions.

- **Maximises ACT government efforts:** Recent machinery of government changes have sought to amalgamate custodianship, budget, expertise and staffing required so we may collectively collaborate on land management practices to achieve desired conservation outcomes.

In short, landscape-scale conservation helps build a more holistic, effective, and future-proof approach to conservation harmonised with other land uses.

Landscape-scale conservation principles

The ACT *Nature Conservation Strategy* (NCS) embeds the following principles with respect to landscape-scale planning for improved ecological outcomes:

1. **Nature Positive:** Landscape-scale planning must seek measurable ecological gains in nature, not just "impact minimisation".
2. **Harm mitigation:** *Priority Conservation Areas* (PCAs) will form the backbone of landscape-scale planning; by development avoiding these areas we reinforce the mitigation hierarchy.
3. **Future-ready:** Landscape-scale planning must be dynamic and responsive to climate change by combining anticipatory planning with adaptive conservation management.
4. **Functional connection:** Landscape-scale planning must prioritise woodland, grassland, riparian/aquatic connectivity, including through urban and rural lands.
5. **Sensitive design:** Landscape-scale planning must implement Biodiversity Sensitive Urban Design (BSUD) to protect and enhance biodiversity across our growing city.
6. **Ecosystem health:** Landscape-scale planning must seek to protect ecosystem services and maintain or restore ecological function and across all tenures.

Key issues

While Canberra is known as the 'Bush Capital', the reality of implementing coordinated, large-scale nature conservation is complex. Here are the key issues:

- **Land-use pressures:** Canberra is growing rapidly, and demand for housing and infrastructure can clash with conservation goals. Strategic conservation must compete with production and development interests, which can be politically and economically dominant.
- **Fragmented governance and land tenure:** The ACT contains a mix of urban, rural, and conservation lands, with public and private landowners, and major jurisdictional overlaps (*e.g.* ACT Government, federal agencies like the National Capital Authority, and regional NSW authorities). Implementing cohesive strategies across boundaries is difficult but crucial.
- **Climate change and increased bushfire risk:** The ACT is highly vulnerable to heatwaves, drought, and bushfires. These disturbances threaten biodiversity and ecosystem integrity. Planning must accommodate increasing climate variability and integrate fire ecology with conservation goals.
- **Maintaining ecological connectivity:** The ACT is uniquely located in a transitional zone between alpine, woodland, and grassland ecosystems, making its rich biodiversity highly dependent on functional connectivity. Connecting fragmented patches into viable ecological networks is vital but technically challenging.

Other challenges include predicting **how species and ecosystems will respond to climate change** and **securing necessary investment over decades** to effectively implement, maintain and adapt landscape-scale planning decisions and approaches.

Despite these challenges, the ACT has strong environmental awareness, expansive public green space, and planning frameworks that can be leveraged to lead innovative conservation at scale.

Our strategic approach to landscape-scale conservation

The Nature Conservation Network

A foundational pillar of the *Nature Conservation Strategy* is creating the **Nature Conservation Network** (NCN). Comprised of the ACT's existing network of formal reserves and protected areas, and the addition of *Priority Conservation Areas* (see below), the NCN represents a strategic, landscape-scale, cross-tenure system of connected lands and water bodies managed for conservation outcomes. Within the NCN, ecological connectivity is actively maintained and enhanced enabling species movement, ecosystem functions, and climate adaptation. The NCN operationalises the Territory's commitment to a **Nature Positive** future by providing a clear, spatially mapped framework that guides land-use planning, investment, and stewardship towards demonstrable ecological gains. Through the NCN, Canberra's growth, agricultural activity, and urban design are integrated with the needs of nature, ensuring that biodiversity can thrive alongside a vibrant, liveable city.

To improve nature conservation outcomes in the ACT, landscape-scale conservation needs to:

1. **Balance urban growth with conservation** by integrating environmental priorities into planning and development decisions to ensure long-term ecological security.
2. Establish **coordinated, cross-tenure governance approaches** to align conservation strategies across public, private, and regional boundaries.
3. Establish frameworks that allow for community wide contribution to conservation through **stewardship**.
4. Establish a secure **funding mechanism** for financial sustainability.
5. Incorporate **climate resilience** into conservation planning to protect biodiversity under increasing environmental variability.
6. Design and implement habitat corridors and green infrastructure to **connect fragmented ecosystems** and support species movement across the landscape.

The following section outlines how the NCS supports these objectives.

Balancing urban growth with conservation

Our pathway to a connected, resilient, and Nature Positive ACT hinges on a shared understanding of what matters most in our natural environment and where it occurs.

This begins with identifying and mapping **critical habitat** for priority species across the ACT, along with mapping the values that are crucial to ecosystem function, such as connectivity needs, hydrological features and climate refugia - focussing first on areas under greatest pressure (lowlands) then expanding to cover the entire ACT.

Once these values are mapped, a strategic decision making process is undertaken between Planning and Environment sections within ACT Government whereby currently planned development and

future planned transport, infrastructure and densification needs will be overlaid on a map of the critical values outlined above and a series of decisions will be made around the ecological, cultural and social value of each area, resulting in the mapping of **Priority Conservation Areas** (PCAs) that are effective and acceptable for both ecological and urban planning purposes. PCAs will be protected from inappropriate development by the *Nature Conservation Act 2014* (NCA).

PCAs will occur across tenure, provide ecological information to shape the Urban Growth Boundary, and can contribute to shaping the **ACT Landscape Plan** and future revisions of the **ACT Planning Strategy**, **District Strategies** and the **Territory Plan**.

In undertaking this approach, the ACT Government will contribute to the following NCS targets:

- ✓ *Priority conservation values are identified*
- ✓ *A map PCAs, reflecting critical habitat, is created*
- ✓ *PCAs are legislated and published*
- ✓ *The protection of underrepresented ecosystems is increased*
- ✓ *Loss of PCA extent is reduced to near zero*

Establishing governance approaches

A dedicated policy – the **Conserved Area Policy** (CAP) – can be developed under the NCA. The CAP can set out appropriate land uses and management dependent on the values present and the tenure they occur on, ensuring land use is compatible with the conservation values in these areas.

CAP objectives and requirements can apply across multiple tenures. For example, for Public Unleased Land the CAP could be applied in the issuing of permits under the *Public Unleased Lands Act 2013*. In Urban Open Space (UOS), it can be applied to shape management under an amended *Urban Open Space Land Management Plan*. In Rural Leased Lands CAP requirements can be embedded in *Land Management Agreements*. Proposed development in a PCA would trigger the application of an *Environmental Significance Opinion* or *Environmental Impact Statement*.

Effectively conserved PCAs would constitute *'other effective area-based conservation measures'* or **OECM**s, widely acknowledged as key tools in achieving national and global conservation goals (see Fitzsimons[21] for an overview).

In undertaking this approach, the ACT Government will contribute to the following NCS targets:

- ✓ *A Conserved Area Policy is developed*
- ✓ *Conservation goals are embedded across relevant governance frameworks*
- ✓ *Area of rural land managed for conservation is increased*
- ✓ *Area of unreserved public land managed for conservation is increased*
- ✓ *Loss of PCA extent is reduced to near zero*

Establishing Stewardship Frameworks

A landscape scale approach to conservation creates opportunities for positive conservation outcomes to be achieved by leaseholders across multiple tenures via stewardship actions.

[21] Fitzsimons, J. A., Hazin, C., & Smith, J. L. (2025). Common misconceptions of 'other effective area-based conservation measures' (OECMs) and implications for global conservation targets. *Biodiversity*, *4*(1), 8.

Biodiversity stewardship is defined as entering into agreements with private and communal landowners as a way of securing land for biodiversity conservation. Often, these agreements facilitate the protection of high value conservation areas that provide a variety of ecosystem services such as biodiversity conservation. It is proposed that a supportive regulatory and legislative framework is developed through NCA reform for stewardship activities.

It must be noted that financial incentives are just one of many factors influencing landholder participation in conservation programs. Eligibility rules, guidance, and the availability of enabling expertise and contractors are crucial for the uptake of desired land management changes and will need to be resourced appropriately. Similarly financial incentives will be implemented alongside behaviour research to fully understand the drivers for participation in incentive schemes.

In undertaking this approach, the ACT Government will contribute to the following NCS targets:

- ✓ *A Stewardship Scheme for rural lands is introduced*
- ✓ *Area of rural land managed for conservation is increased*

Expand funding mechanisms and distributing funds equitably

Achieving **Nature Positive** and facilitating continued stewardship will require ongoing investment of both time and resources. Crucially, appropriate resourcing will be required so that the additional burden does not fall across under resourced ACT Government sections.

The NCS will seek to build on and strengthen existing restoration funding mechanisms and contribution schemes already functioning within ACT Government and will explore options to establish a financing mechanism with the core purpose of supporting nature conservation activities. . To ensure flexibility, independence and long-term focus and ensure finances are spent in an effective and timely manner, this mechanism may be administered by an independent trust – an approach adopted in several other Australian states.

A key revenue source for this funding mechanism would be via **restoration contributions** for the loss of native habitat values. Conservation values lost to development will be appropriately compensated for, either through replacement ratio that ensures a Nature Positive outcome, or through the payment of restoration contributions. Replacement ratios and calculators for contributions will be allowed for under the *Nature Conservation Act* and fully elucidated under a dedicated **Restoration Contribution Policy** (RCP). This could be supported by reworked legislation, the CAP and internal policy documents that clearly articulate how any funds would be assigned, ensuring equitable and fair distribution towards highest priority areas.

In undertaking this approach, the ACT Government will contribute to the following NCS target:

- ✓ *A policy and financing mechanism to fund nature restoration is created*
- ✓ *A Nature Conservation Network (NCN) Investment Model is developed, resourced and implemented*

Incorporating climate resilience

To ensure that landscape-scale conservation in the ACT remains effective in the face of climate change, conservation planning must embed a climate adaptation lens. Climate change is already altering ecosystems through increased heat, drought, severe fires, and changing rainfall, and these effects will intensify over time. Landscape-scale conservation must therefore be both **anticipatory** (planning for expected changes) and **adaptive** (responding to those already underway).

This involves two interlinked approaches: (1) supporting ecological adaptation by protecting and restoring large, connected, and diverse habitats, enabling natural processes like species migration, behavioural shifts, and evolution to occur in response to climate stress; and (2) adapting conservation practice by embedding climate adaptation principles into policies, objectives, and on-ground actions, recognising that some ecosystems will transform, and conservation strategies may need to shift from resisting change to directing or accepting it.

For landscape-scale conservation to be climate-ready, planning must identify and protect **climate refugia**, maintain and enhance **ecological connectivity**, integrate **scenario-based risk assessments** into conservation decision making and trial and evaluate **on-ground climate adaptation measures** such as targeted revegetation with future climate in mind or fire-adapted management regimes.

In undertaking this approach, the ACT Government will contribute to the following NCS targets:

- ✓ *Case-based climate risk assessments are completed*
- ✓ *Preparedness, response and recovery planning for priority values is undertaken*
- ✓ *Guidance and tools for climate-adaptive planning are developed and used*
- ✓ *On-ground climate adaptation measures are prioritised, trialled and evaluated*

These targets will help ensure that the ACT's conservation network remains robust under a range of future climate scenarios, and that efforts are prioritised in areas where adaptation potential is high. For further information, please see *Supplement A: Climate adaptation for nature conservation*.

Connecting fragmented ecosystems

The NCS aims to conserve and enhance functional connectivity across the ACT, with a focus on urban and peri-urban aquatic-riparian, forest, woodland and grassland habitats. Critical connectivity corridors must be maintained, while restoration will be prioritised based on an area's potential to have a positive impact on PCAs. As ecological restoration is a slow and challenging process connectivity gains may not be fully realised within the life of the strategy, so success will be measured based on: (a) the probability of connectedness, (b) a shared connectivity focus for site management; and (c) restoration practices implemented to restore connectivity.

Connectivity will be measured for each ecosystem using *probability of connectedness*: a metric developed in Melbourne by Kirk *et al.* (2023)[22] that provides a scientifically proven measure of functional connectivity. Analysing spatial data – on suitable habitat and movement barriers – at different points in time over the life of the strategy will support tracking against NCS targets, where the aim is to maintain or increase the probability of connectedness for each ecosystem. When assessing functional connectivity, it is important to also account for the **extent of habitats**. Connectivity as a standalone measure can be misleading, because clearing habitat can artificially 'improve' connectivity where isolated fragments are lost. The NCS connectivity targets must be met without a loss of total habitat extent.

In undertaking this approach, the ACT Government will contribute to the following NCS targets:

- ✓ *Biodiversity Sensitive Urban Design (BSUD) guidelines are reviewed and implemented appropriately*
- ✓ *Connectivity of grassland and aquatic-riparian environments is maintained*

[22] Kirk, H. *et al.* (2023) 'Ecological connectivity as a planning tool for the conservation of wildlife in cities', *Methods*, 10.

- ✓ *Connectivity of woodlands and forests is increased*

Achieving these NCS connectivity targets will require **effective restoration** and **appropriate management of habitat** across other land uses, which may include urban greening in alignment with the *Urban Forest Strategy 2020-2045* and consistent and rigorous application of BSUD.

Appendix A: Causal pathways toward landscape-scale conservation

Figure 1 illustrates the causal pathways identified in the NCS Theory of Change that are necessary and sufficient for the achievement of landscape-scale conservation planning goals. Primary causal links are indicated by dark shading and arrows, supporting causal links are indicated by lighter shading.

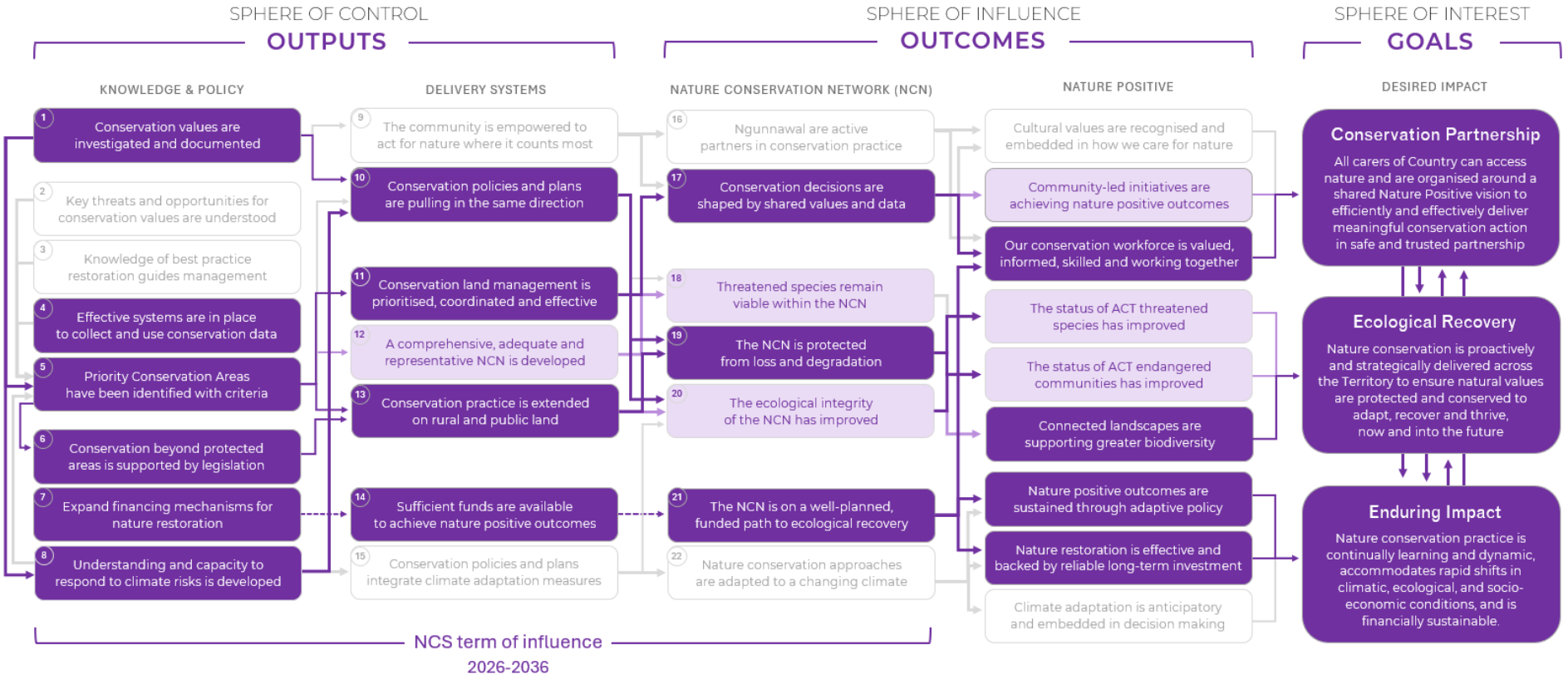

Figure 1. The NCS Theory of Change showing causal pathways for the achievement of landscape-scale conservation planning goals

Appendix B: Supplement B glossary

Term	Definition
ACT Landscape Plan	A set of planning and management framework that guide how ACT landscape and its assets—such as vegetation, open spaces, and nature strips—are protected, managed, and integrated into development across the Territory.
Biodiversity-Sensitive Urban Design (BSUD)	An approach to urban design that incorporates 5 core ecological principles to conserve and enhance biodiversity within urban and peri-urban environments. Specifically, BSUD requires designs to maintain or create habitat for target species, facilitate dispersal, minimise disturbance and other threats, facilitate natural processes, and facilitate positive human-native interactions.
Climate Resilience	Climate resilience in relation to conservation planning refers to the ability of ecosystems, species, and conservation systems (policies, plans, management tools, the NCN) to withstand, adapt to, and recover from the impacts of climate change. On the Landscape conservation planning, this would mean designing and managing natural areas in a way that they anticipate and respond appropriately to climate change impacts or hazards.
Conserved Area	A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values. See also *OECM; Other area-based Effective Conservation Measures*.
Conserved Area Policy (CAP)	A policy framework that guides the identification, management of Priority Conservation Areas located outside of the formal protected area network. The management aspects of the PCAs that covers conservation and restoration objectives are set out by this policy based on the ecological, cultural, or climate resilience values and tenure they occur on. The policy will also outline the mechanisms for incentive schemes for supporting land custodians involved in contributing to nature conservation outcomes.
Critical Habitat	Habitat for a protected matter, species or ecological community that is critical to the long-term survival and recovery of that matter, species or community. An area will only become Critical Habitat if it is formally declared under the *Nature Conservation Act*.
District Strategy	District Strategies provide spatial plans for Canberra's nine districts. They identify areas for growth and change, reflect local character, and guide development to support housing, services, transport, and sustainability. Each strategy aligns with the broader Planning Strategy and informs future zoning and development decisions.
Ecological Connectivity	The degree to which landscapes allow for the movement of species, ecological processes, and genetic exchange. Connectivity is crucial for ecosystem resilience and species survival, especially under climate change.
Ecological Transformation	The dramatic and effectively irreversible shift in multiple ecological characteristics of an ecosystem, the basis of which is a high degree of turnover in ecological communities.
Ecosystem Services	Ecosystem services are the benefits provided to humans through the transformations of resources (or environmental assets, including land, water, vegetation and atmosphere) into a flow of essential goods and services e.g. clean air, water, and food.
Fragmentation	Fragmentation here refers to Habitat Fragmentation, an umbrella term describing the complete process by which habitat loss or artificial barriers result in the division of large, continuous habitats into a greater number of smaller patches of lower total area, isolated from each other by a matrix of dissimilar habitats and is not just the pattern of spatial arrangement of remaining habitat. A matter gets worse if climate change and habitat fragmentation interact-a fragmented habitat will be isolated and disconnected, limiting species movement and reducing that climate adaptation potential. A connected habitat or landscape is therefore more resilient.
Functional Connectivity	A measure of how easily organisms can move across a landscape based on habitat suitability, spatial arrangement, and barriers. Often quantified through metrics like Probability of Connectedness (Pc).

Term	Definition
Future-ready	Refers to a principle of landscape-scale conservation planning that is designed to be proactive, flexible, and resilient in the face of climate change and ecological uncertainty.
Harm Mitigation	Harm mitigation is the strategic process of avoiding, minimising, restoring, and offsetting ecological impacts, with a strong emphasis on avoiding development in Priority Conservation Areas (PCAs) to protect biodiversity and ecosystem function.
Landscape-scale Conservation	A strategic approach that considers entire ecosystems, habitats, ecological processes and services across large geographic areas, rather than focusing on individual sites or species.
Nature Conservation Act (NC Act)	Referred here is the *Nature Conservation Act 2014* (NC Act). It is the principal legislation of the ACT that provides the legal framework for the protection, conservation and enhancement of biodiversity of the Territory.
Nature Conservation Network (NCN)	A strategic, cross-tenure network of lands in the ACT under some form of long-term protection or conservation and active conservation management – including green corridors and climate refugia – managed for Nature Positive conservation outcomes. The NCN integrates formal reserves and PCAs beyond the formal protected network – including stewardship lands and urban green space and infrastructure – to deliver functional connectivity and ecological resilience across ACT landscapes.
Nature Positive	A term used to describe circumstances where nature – species and ecosystems – is being repaired and is regenerating rather than being in decline.
Other Effective Area-Based Conservation Measures (OECM)	Other area-based Effective Conservation Measures (also *Conserved Area*): A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values. Includes private conservation agreements and community-managed lands.
Planning Strategy	The ACT Planning Strategy sets long-term goals for Canberra's growth to 2050. It guides land use, infrastructure, and environmental planning to support a compact, sustainable, and resilient city, focusing new housing within existing urban areas and aligning development with community, climate, and transport priorities.
Priority Conservation Area (PCA)	Spatially defined areas identified as critical to achieving long-term Nature Positive conservation outcomes in the ACT. PCAs may include land both within and beyond the formal protected area network, including urban open space and rural leased lands. PCAs will contain critical habitat plus the area needed to support critical ecosystem function, providing focus for recovery programs and financial investment. These areas will be determined by strategic decision-making to align with Planning priorities, ensuring development is avoided in these critical areas to support functional connectivity and climate resilience.
Protected Area	A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.
Reserve	Refers to wilderness areas, national parks, nature reserves, catchment areas and special purpose reserves prescribed in Schedule 1 of the *Nature Conservation Regulation 2015* (NC Regulations) that are protected under the NC Act.
Restoration Contribution	A mechanism for offsetting biodiversity losses from development by contributing financially to a dedicated fund to support habitat restoration, stewardship, or conservation actions elsewhere.
Restoration Contribution Policy (RCP)	A policy instrument under the NC Act that governs how financial contributions for biodiversity loss are calculated, collected, and allocated to achieve nature positive outcomes.
Stewardship	The active management and care of land to maintain or enhance its conservation values, often undertaken by private or community landholders through formal agreements or incentive schemes.

Term	Definition
Territory Plan	The Territory Plan is the ACT's statutory planning instrument under the Planning Act 2023. It regulates land use and development through zones, policies, and codes. It ensures development aligns with strategic planning goals and provides the legal basis for assessing development applications.
Urban Open Space (UOS)	Public land reserved under the territory plan as 'urban open space' with a primary objective to provide for public and community use of the area, or develop the area for public and community use.

ACT Government

Supplement C to the ACT Nature Conservation Strategy 2026–2036

Effective restoration practice in the ACT

This supplementary document translates the NCS vision for a connected Nature Positive landscape into policy and technical guidance to support proactive, accountable, and coordinated decision-making.

City and Environment Directorate

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Ecosystem restoration in the ACT

What is restoration?

The ACT Government is committed to the restoration of ecosystems that have experienced degradation, damage, or destruction. Ecosystem restoration is defined as the process of assisting the recovery of such ecosystems to a state that reflects the structure, function, and trajectory of a comparable, healthy reference ecosystem[23].

Importantly, restoration does not aim to return ecosystems to a pristine state as defined at a fixed point in the past—often pre-1750. Instead, the restoration target represents the highest and most achievable level of recovery, acknowledging contemporary environmental conditions and constraints. This approach allows for changes in ecosystem conditions due to factors such as climate, and changes that may not be recoverable (such as several pest plants, animals and uncontrollable pathogens, urbanisation), while still reducing threats and promoting native species and ecological function.

To ensure restored ecosystems are resilient and functional under anticipated temperature and precipitation changes over the coming decades, restoration must use sing a mix of climate-informed restoration practices. This will become an increasingly important element of ecosystem restoration as the intensity and rate of climate change increases.

Restoration activities in the ACT involve targeted physical interventions aimed at halting ongoing degradation and re-establishing ecological integrity and function. These efforts are guided by scientific research, climate and spatial analysis, and long-term ecological monitoring.

In the ACT, ecosystem restoration is a collaborative, cross-tenure endeavour. It actively engages the ACT community, farmers, public and private land managers, researchers, restoration practitioners, and Traditional Owners. This inclusive approach ensures that diverse knowledge systems and expertise contribute meaningfully to restoration outcomes.

A primary objective of this document is to develop and implement effective methods and resources that enhance the extent, condition, and resilience of native ecosystems across the ACT.

Why does restoration matter?

Historic and ongoing land use, water management practices and urbanisation have significantly altered the extent, connectivity, and condition of native ecosystems in the ACT. Many of the ACTs remnant ecosystems support unique plant and animal species which are found only in south-eastern Australia, including several that are rare, threatened, or endemic to the ACT.

The introduction and spread of invasive plant species and feral animals have added further ecological stress, contributing to the degradation of native terrestrial and riparian ecosystems. These pressures have led to the loss of species, ecological communities, and essential ecosystem functions, undermining biodiversity, cultural values, and the wellbeing of communities that depend on ecosystem services.

[23] Standards Reference Group SERA (2021) National Standards for the Practice of Ecological Restoration in Australia. Edition 2.2. Society for Ecological Restoration Australasia.

Without effective and sustained restoration, the distinctive landscapes, flora and fauna of the ACT face increasing threats and irreversible loss. However, restored ecosystems are more resilient to disturbances and shocks and therefore reduce the long-term costs of managing environmental threats and change. Ecosystem restoration delivers both ecological and social benefits, including:

- Enhanced ecosystem services (e.g. clean air, water, and soil health)
- Increased areas of high-quality, connected native habitat
- Improved outcomes for threatened species
- Greater community engagement in environmental stewardship
- Expanded access to healthy natural spaces, including parks and reserves and waterways
- Supporting climate change mitigation and adaptation

These outcomes support the ACT's broader environmental, cultural, and social objectives.

Our strategic approach to restoration

The following section draws from the 'National Restoration Standards for restoration in Australia'[23], adapted from the 'International principles and standards for the practice of ecological restoration'[24]. These six principles and standard have been developed to support restoration and are detailed below in reference to how the ACT is applying these to restoration in future.

Principle 1: Ecological restoration practice is based on an appropriate local indigenous reference ecosystem.

*"A model adopted to identify the particular ecosystem that is the target of the restoration project. This involves describing the specific compositional, structural and functional ecosystem attributes requiring reinstatement before the desired outcome (the restored state) can be said to have been achieved."*23

Reference Ecosystems and Benchmarking in the ACT

A reference ecosystem serves as the target condition for restoration projects. According to Principle 1 of the 'National Restoration Standards'[23], full recovery is achieved when a site reaches a comparable ecological condition and trajectory to its reference ecosystem. Importantly, the reference ecosystem is not a fixed historical state; it incorporates anticipated changes due to global climate change and reflects a dynamic restoration target that can be seen as the *highest and best level of recovery possible*.

To implement Principle 1, the ACT Government is developing **Reference Ecosystem Benchmarks** for each **Plant Community Type (PCT)**. PCTs are spatial polygons that define the type and extent of known vegetation communities within the ACT , and are similar to the PCT found in BioNet in NSW. We use them here to define different communities based on similar abiotic and biotic elements. These communities will also likely have similar threats and restoration interventions.

While these PCTs are focussed on terrestrial ecosystem, a similar approach of defining different aquatic communities can and should be developed. For example, based on physical geomorphic, structural component and flow type.

[24] Gann, G.D., McDonald, T., Walder, B., Aronson, J., Nelson, C.R., Jonson, J., Hallett, J.G., Eisenberg, C., Guariguata, M.R., Liu, J. and Hua, F. (2019). International principles and standards for the practice of ecological restoration. *Restoration Ecology. 27 (S1): S1-S46*, *27*(S1), pp.S1-S46.

Reference Ecosystem Benchmarks for PCTs are being established using 15 years of monitoring data from the highest-quality sites available. These benchmarks represent high ecological condition, defined by ecosystem function, vegetation structure, species composition, and faunal assemblages. To ensure accuracy, multiple sites are used to account for natural variability, and exotic species are excluded. Where data on benchmark values is lacking, we will refer to NSW BioNet Vegetation Condition Benchmarks.

Benchmarks have been developed for the following PCTs:

- **PCT 1:** Natural Temperate Grassland
- **PCT 16:** Yellow Box – Blakely's Red Gum Grassy Woodland
- **PCT 18:** Broad-leaved Peppermint – Apple Box Tableland Woodland
- **PCT 25:** Red Stringybark – Scribbly Gum Tableland Forest

As monitoring coverage expands, additional benchmarks will be developed for other vegetation, wetland and riparian communities across the ACT. Benchmarks for water ecosystems can and should also be developed around the same principles by defining different states based on presence and absence of key components e.g. floodplain presence, underwater structural habitat, water quality.

In applying this principle, the ACT Government will contribute to the following **Nature Conservation Strategy (NCS) targets:**

- ✓ *Critical datasets required to achieve Nature Positive objectives are maintained*
- ✓ *Representation of ecosystems in existing protected areas is assessed*

Principle 2: Restoration inputs will be dictated by level of resilience and degradation

"Skilful assessment of the capacity for natural recovery should be done prior to prescribing whether regeneration-based or reintroduction-based approaches are needed. This is essential to optimise success but is also important to assist prioritisation."[23]

Ecosystem Resilience and Degradation in the ACT

Ecosystems vary in their level of intactness and function, and a greater level of intervention is needed where an ecosystem is degraded and non-functioning (Figure 1). Improving function and intactness is the basis for restoration. ACT PCTs have been further stratified into 'zones', which reflect the current ecological condition of PCTs relative to benchmark thresholds. We use the PCT zone condition states to classify (see Principle 1) ecosystems by their level of degradation and resilience, combined with on ground monitoring to assess the exact level of ecological condition (Principle 4).

Ecological Restoration Approaches in the ACT

Selecting an appropriate restoration approach based on the degree of ecosystem degradation and resilience is essential to achieving effective and cost-efficient ecological recovery. In the ACT, **three primary restoration approaches** defined in 'National Restoration Standards'[23] are recognised:

1. **Facilitated Natural Regeneration**
   This approach is applied to areas with high ecological resilience. Restoration efforts focus on the active and ongoing removal of threats such as invasive plant species and feral animals. Revegetation is not required, as native species are present in sufficient numbers to regenerate

naturally once competition is reduced. The objective is to shift the ecological balance in favour of native species dominance.

2. **Assisted Regeneration**
   This method is used where key components of the ecosystem—such as native understorey, shrubs, trees, or characteristic fauna—are absent or severely diminished. Natural regeneration is limited, and recovery must be supported through interventions such as direct seeding, planting of tube stock, species translocations, and habitat enhancements (e.g. coarse woody debris). Threat management remains an integral part of this approach.

3. **Reconstruction**
   Applied to sites that are severely degraded or ecologically collapsed, this approach requires intensive intervention to re-establish ecosystem function. Techniques may include landform reconstruction, soil remediation, reconnection of waterways and natural flows, and the reintroduction of native plant and animal species. Ongoing threat control is essential to support long-term recovery and alignment with reference ecosystem benchmarks.

Each site may exhibit varying levels of degradation across different ecological attributes, and as such, a combination of these approaches may be applied to achieve restoration objectives. All restoration approaches require the ongoing removal of threats (weeds, pests, poor environmental flows, obsolete infrastructure) to reach full recovery, which is when country is healthy, self-sustaining, resilient and on the same trajectory as the reference ecosystem.

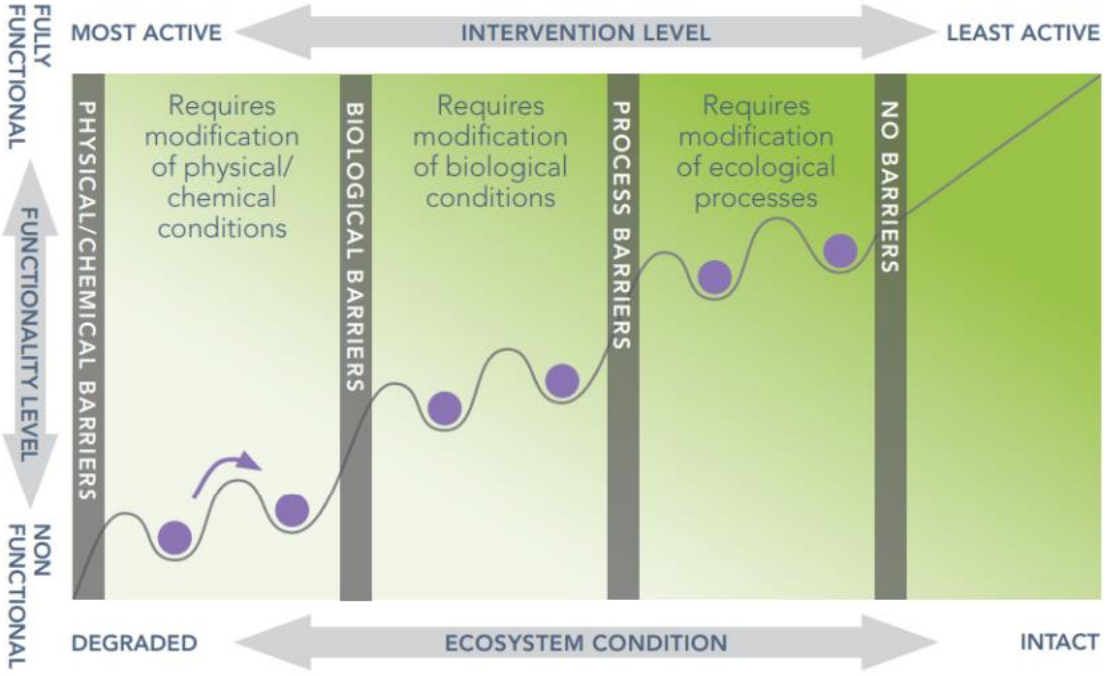

Figure 1. Conceptual model of ecosystem degradation and restoration. (Adapted from Keenleyside et al 2012, after Whisenant 1999, and Hobbs & Harris 2001). The troughs in the diagram represent basins of stability in which an ecosystem property (ball) can remain in a steady state prior to being shifted by a restoration activity past a barrier (peaks) towards a higher functioning state. Notes: (1) Cessation or mitigation of the original drivers of degradation at the site (e.g. land clearing, mining, grazing, etc.) is assumed to have already occurred as the first stage of the restoration; (ii) A site's pre-restoration condition may start at any point along the trajectory; (iii) Biological barriers can be complex (not necessarily involving lack of propagules); (iv) In some cases overcoming one barrier type (e.g. physical-chemical barriers) may be sufficient alone; and, (v) small barriers of any type may occur in any sequence along the degradation/ recovery trajectory. Cited from SERA 2021*23*.

Restoration Prioritisation and Spatial Planning

To implement Principle 2, the ACT Government has developed the **ACT Restoration Priority Map**, a spatial decision-support tool that identifies priority areas for ecological restoration. This map integrates ecological condition data and overlays it onto Plant Community Types (PCTs) to identify the highest functioning and most intact areas, to the least functioning and intact areas. Currently, the map is limited to several terrestrial ecosystems, but could be expanded to riparian and waterway ecosystems. The map provides filtered views that suggest the most likely restoration approach for each area, based on available data. It also highlights missing ecological components and estimates the cost of reintroducing those elements, supporting informed and strategic restoration planning across the ACT.

In applying this principle, the ACT Government will contribute to the following **NCS targets**:

- ✓ *Priority conservation values are identified*
- ✓ *A map of Priority Conservation Areas (PCAs), reflecting critical habitats, is created*
- ✓ *A spatialised community conservation guide is created*

Principle 3: Recovery of ecosystem attributes is facilitated by identifying clear targets, goals and objectives.

"A restoration project will have greater transparency, manageability and improved chances of success if the restoration targets and goals are clearly defined and translated into measurable objectives. These can then be used to monitor progress over time, applying adaptive management approaches."[23]

Restoration Planning and Implementation

To support the implementation of Principle 3, the ACT Government has developed a **Restoration Planning Template** to guide the design and delivery of restoration projects. This tool assists practitioners in defining restoration actions over an annual cycle and aligning them with long-term ecological goals.

The planning framework includes:

- **Goals** (5–10 years): Broad, long-term ecological outcomes.
- **Targets:** Specific benchmarks aligned with reference ecosystem.
- **Objectives** (annual): Clearly defined steps toward achieving targets.

Objectives must be **SMART** (Specific, Measurable, Achievable, Reasonable, and Time-bound) and should be developed collaboratively with all relevant stakeholders, in accordance with Principle 6.

The planning process is supported by a **Restoration Planning Checklist**, developed by the Australian Association for Bush Regenerators (AABR)[25], and aligned with the principles of the 'National Restoration Standards'[23]. This checklist ensures consistency, accountability, and alignment with best-practice ecological restoration standards. The list is:

- Resourcing
- Stakeholder engagement
- External context assessment

[25] AABR Restoration Planning Checklist

- Reference ecosystem identification
- Baseline inventory of ecological values and threats
- Risk management
- Targets, goals and objectives
- Restoration treatment planning
- Planning of monitoring, evaluation and reporting

In applying this principle, the ACT Government will contribute to the following **NCS targets**:

- ✓ *Threats to priority conservation values are identified and evaluated*
- ✓ *Critical knowledge gaps in management effectiveness are addressed*
- ✓ *A policy and financing mechanism to fund nature restoration is created*
- ✓ *Preparedness, response and recovery planning for priority values is undertaken*
- ✓ *A spatialised community conservation guide is created*
- ✓ *Land managers are engaged in conservation-focused biosecurity actions*
- ✓ *Representation of ecosystems in existing protected areas is assessed*
- ✓ *Restoration of PCAs is delivered with Ngunnawal*
- ✓ *The loss of priority conservation values to weeds is halted or reversed*
- ✓ *Appropriate fire regimes are maintained across the Nature Conservation Network (NCN)*
- ✓ *Active and effective restoration is sustained on at least 50% of PCAs*

Principle 4: The goal of ecological restoration is full recovery, insofar as possible, even if outcomes take long timeframes or involve high inputs.

"Qualification of a project as an ecological restoration activity is not determined by the duration of the project but by the intent to achieve the highest and best level of recovery possible."[23]

Monitoring Recovery and Adaptive Management

Full ecosystem recovery is shaped by a range of factors, including the site's baseline condition, biotic and abiotic interactions, seasonal and climatic variability, and the type and intensity of restoration interventions. Recovery is a long-term process that may span several decades—often between 30 and 100 years—and requires consistent, sustained investment.

In many cases, full recovery to historical conditions may not be feasible due to irreversible changes such as dam construction, species extinctions, or landscape transformation. However, the goal remains to achieve the highest possible level of ecological recovery possible given conditions.

Reliable funding and long-term commitment are essential for meeting this principle. Without it, restoration gains can be lost, leading to declines in biodiversity, degradation of high-quality ecosystems, and erosion of financial investments, public confidence, and institutional trust.

Understanding the condition of a site is critical for effective restoration planning, adaptive management, and measuring progress toward the reference ecosystem. Monitoring recovery trajectories helps ensure that restoration efforts remain on track and that ecological improvements are being achieved over time.

To implement Principle 4, the ACT Government uses the **ACT Recovery Wheel**, a tool that applies quantitative metrics to monitor ecological recovery over time. The Recovery Wheel supports long-term project continuity and helps safeguard restoration outcomes.

Key features include:

- **Six core attributes** of a reference ecosystem, each with associated sub-attributes.
- **Ecological indicators** scored on a scale from 1 (lowest condition) to 5 (equivalent to reference condition).
- **Visual representation** of baseline condition and changes over time (**Error! Reference source not found.**).

The Recovery Wheel enables practitioners to:

- Rapidly assess the ecological condition of a site.
- Identify missing components relative to the reference ecosystem.
- Inform restoration goals and site-specific actions.
- Monitor ecological change through repeated assessments.
- Support adaptive management and guide annual planning.
- Track recovery over long timespans, acknowledging that some ecosystems can be difficult to recover

Recovery Wheel scores for individual sites and across the ACT will be made available through an **Ecological Condition Dashboard**, providing transparency and supporting evidence-based decision-making.

In applying this principle, the ACT Government will contribute to the following **NCS targets**:

- ✓ *Critical knowledge gaps in management effectiveness are addressed*
- ✓ *Critical datasets required to achieve Nature Positive objectives are maintained*
- ✓ *Management effectiveness of PCAs is evaluated*
- ✓ *Impact thresholds of priority pests are identified and managed to in PCAs*
- ✓ *Loss of PCA extent is reduced to near zero*
- ✓ *The loss of priority conservation values to weeds is halted or reversed*
- ✓ *Active and effective restoration is sustained on at least 50% of PCAs*

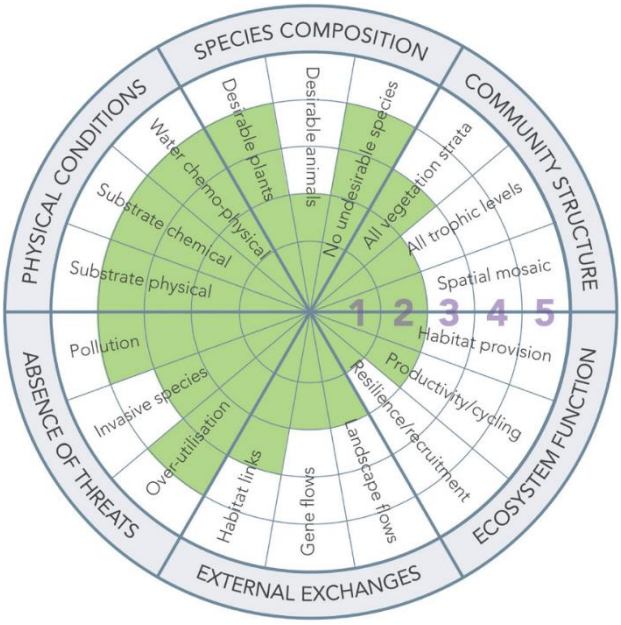

Figure 2. Example of a recovery wheel filled in against the condition across the indicators and six core attributes.

Principle 5: Restoration science and practice are synergistic.

"The practice of ecological restoration requires a high degree of ecological knowledge that can be drawn from practitioner experience, Traditional Ecological Knowledge, Local Ecological Knowledge and scientific discovery. These forms of knowledge are the product of observation, experimentation, and trial and error, whether formal or informal."[23]

Collaboration and Improving Restoration Knowledge

Restoration is most effective when we understand the ecological processes that support recovery. Working together helps achieve better outcomes, build knowledge, and improve restoration methods over time. Principle 5 is applied in several ways to support learning and collaboration in the ACT. Active collaboration between ecologists, climate and spatial scientists, database managers, species experts, Traditional Custodians, practitioners and community contributes to addressing knowledge gaps that ensure nature positive, climate-resilient ecosystem restoration into the future.

The **Environment, Heritage & Planning (EHP) Restoration Steering Committee** was formed in 2023 to coordinate and oversee restoration work in the ACT. Its Terms of Reference have been agreed upon by representatives from across the ACT Government. The committee ensures that all groups work together with a shared strategy and common restoration goals.

In 2024, an internal ACT Government working group was established to facilitate knowledge sharing and improve internal processes. This **Restoration Community of Best Practice** brings together field practitioners and researchers to discuss and solve restoration challenges they face in their work.

This principle is also supported by the development and use of a **Spatial Database Tool** to track restoration activities across the ACT estate. This tool allows users to link restoration actions to specific targets and record project details, including site locations, actions taken, and associated effort and costs. This tracking helps assess the effectiveness of restoration work and provides valuable insights into recovery progress, best practices, and cost-efficiency. While currently in development, the aim is to allow all restoration practitioners (Government and non-Government) to enter their restoration activities into this database, to learn and plan restoration together.

The ACT Government plans to establish an **annual seminar series** to promote collaboration and knowledge sharing across the ACT Community.

In applying this principle, the ACT Government will contribute to the following **NCS targets**:

- ✓ *Threats to priority conservation values are identified and evaluated*
- ✓ *A threat prioritisation framework is developed*
- ✓ *Critical knowledge gaps in management effectiveness are addressed*
- ✓ *Critical conservation datasets are collected in a standardised way*
- ✓ *Critical datasets required to achieve Nature Positive objectives are maintained*
- ✓ *A spatialised community conservation guide is created*
- ✓ *Restoration of PCAs is delivered with Ngunnawal*
- ✓ *Management effectiveness of PCAs is evaluated.*
- ✓ *The NCS Indicator Framework is reported on biennially*

Principle 6: Social aspects are critical to successful ecological restoration

"Without considering social values and benefits, particularly relationships between a site and its stakeholders, a restoration project may not gain the social support needed for success and may fail to deliver important benefits to ecosystems and to society."[23]

Stakeholder Engagement in Restoration Planning

Securing stakeholder agreement is essential to clearly define the goals and targets of a restoration project, identify funding sources, clarify roles and responsibilities, and build collaboration. Effective stakeholder involvement leads to stronger community support, fewer conflicts, and more successful restoration outcomes. Large-scale restoration projects should include **Traditional Custodians** early in the planning process. Their perspectives, cultural knowledge, and preferred ways of working must be respected and integrated. This inclusive approach fosters a deeper, shared understanding of ACT Country and supports more meaningful and lasting restoration outcomes. Box 6 provides an excerpt from the 'National Restoration Standards'[23] on Traditional Custodian restoration (SERA 2021[23]).

Box 6. Indigenous peoples and restoration

Indigenous peoples in Australia are the oldest continuous culture on Earth and are well placed to teach other Australians more appropriate ways to live within and manage Australian ecosystems. As a result of this recognition, Indigenous groups can and do play a major role in ecological restoration and rehabilitation practice and research, including that relating to the improved management of social-ecological systems.

About 40% of Australia's land mass is recognized under Australian law as Indigenous-owned, with much land and water still under claim or viewed as never ceded. Caring for Country is a traditional and contemporary practice both within remote Indigenous lands and lands closer to regional and urban centres. Many Indigenous peoples are utilising their land, social capital, and ecological knowledge to better their people and environment, working in collaboration with all other sectors of society

Ecological restoration and rehabilitation activities are a major source of employment for Indigenous Australians and help to reconnect younger generations with their cultural heritage from which they have been, and continue to be, actively dispossessed. As such, benefits can and must flow from restoration to Indigenous peoples, a process that will benefit the whole of society as the world seeks to rebuild a more restorative relationship between our species and the rest of nature.

Many actions already mentioned in this document will help meet this principle. For example, the **ACT Restoration Priority Map** (Principal 2), **Restoration Planning Template** (Principle 3), **Spatial Database Tool** (Principle 4), **Restoration Community of Best Practice** (Principle 5) will provide multiple avenues for stakeholder consultation as a core part of project planning.

In applying this principle, the ACT Government will contribute to the following **NCS targets**:

- ✓ *A Stewardship Scheme for rural lands is introduced*
- ✓ *A spatialised community conservation guide is created*
- ✓ *Restoration of PCAs is delivered with Ngunnawal*

Appendix A: Causal pathways toward better restoration practice

Figure 3 illustrates the causal pathways identified in the NCS Theory of Change that are necessary and sufficient for the achievement of ecological restoration goals. Primary causal links are indicated by dark shading and arrows, supporting causal links are indicated by lighter shading and arrows.

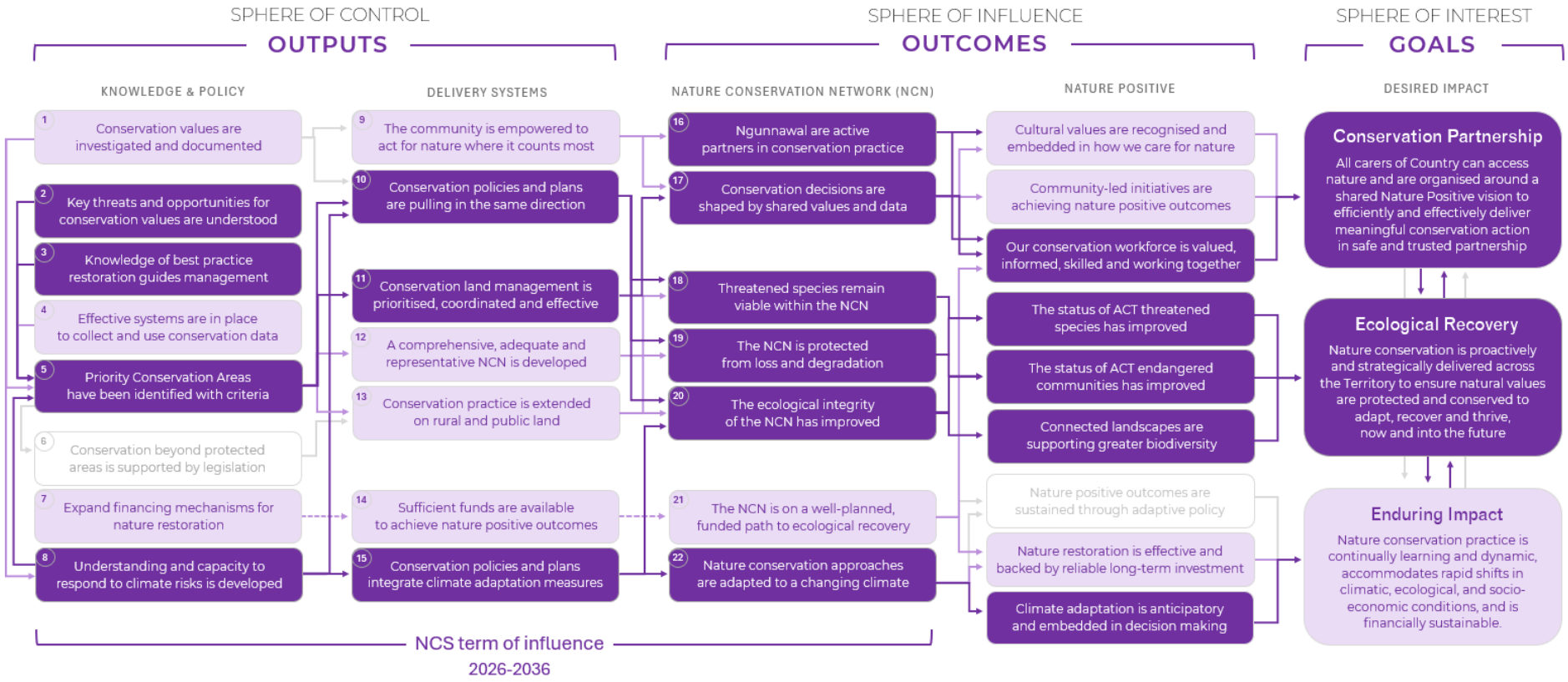

Figure 3. The NCS Theory of Change showing causal pathways for the achievement of ecological restoration goals

Appendix B: Supplement C glossary

Term	Definition
Abiotic	The non-living components of an ecosystem such as water, sunlight, soil, temperature.
ACT Recovery Wheel	A tool that applies quantitative metrics to monitor ecological recovery over time.
ACT Restoration Priority Map	Spatial decision-support tool that identifies priority areas for ecological restoration. This map integrates ecological condition data and overlays it onto Plant Community Types (PCTs) to identify the highest functioning and most intact areas, to the least functioning and intact areas.
Assisted Regeneration	Natural regeneration is limited, and recovery must be supported through interventions such as direct seeding, planting of tube stock, species translocations, and habitat enhancements (e.g. coarse woody debris). Threat management remains an integral part of this approach.
Australian Association for Bush Regenerators (AABR)	AABR is an association incorporated under the *Associations Incorporation Act 1984 NSW.* It is managed by committee of volunteers. It was established in 1986, out of concern for the continuing survival and integrity of bushland and its dependent fauna. Its aim is to promote the study and practice of ecological restoration and foster and encourage effective management of natural areas by qualified people, based on sound ecological principles.
Baseline Condition	Refers to the initial ecological state of a site before restoration or intervention begins. It serves as the reference point for assessing change, planning restoration actions, and measuring progress toward recovery.
Biodiversity	The variability among living organisms from all sources (including terrestrial, marine and other aquatic systems and the ecological complexes of which they are part) and includes diversity within species and between species, and of ecosystem.
Biotic	The living components of an ecosystem such as plants, animals, bacteria, fungi.
Causal Pathway	A backwards mapping from a strategic *goal* through all the long and short-term *outcomes* to the *outputs* needed to achieve it, identifying a logic arrangement of causal links between these.
Ecological Condition Dashboard	A digital platform that provides transparent, accessible, and spatially explicit information on the ecological condition and recovery progress of conservation sites across the ACT.
Ecosystem Degradation	The decline in the health and functionality of an ecosystem from environmental damage and resulting in the loss of biodiversity, reduced ecosystem services, and impaired ecological processes.
Ecosystem Function	It refers to the processes and activities within an ecosystem that are essential for the ecosystem to function properly and provide services that have social, cultural and ecological values.
Ecosystem Resilience	The ability of natural areas (ecosystems) to persevere and adjust despite changes and disturbances as a result of changing land use and climate change impacts. Resilience depends upon the continuity of ecological processes such as energy flows, nutrient cycles, hydrological cycles and food webs.
Ecosystem Restoration	The process of assisting the recovery of such ecosystems to a state that reflects the structure, function, and trajectory of a comparable, healthy reference ecosystem (SERA 2021).
Endemic	In the context of a plant or an animal species, endemic refers to a species that is unique to a specific geographic location and found nowhere else in the world.

Term	Definition
Environmental Stewardship	The active management and care of land to maintain or enhance its conservation values, often undertaken by private or community landholders through formal agreements or incentive schemes.
Facilitated Natural Regeneration	Restoration efforts that focus on the active and ongoing removal of threats such as invasive plant species and feral animals. Revegetation is not required, as native species are present in sufficient numbers to regenerate naturally once competition is reduced.
Fire Regime	It refers to the natural pattern, frequency, and intensity of fires that occur in a particular ecosystem over time.
Full Recovery	When country is healthy, self-sustaining, resilient and on the same trajectory as the reference ecosystem.
Invasive Species	Introduced plants and animals that can establish quickly and spread to the point of threatening native communities and ecosystems.
Nature Conservation Network (NCN)	A strategic, cross-tenure network of lands in the ACT under some form of long-term protection or conservation and active conservation management – including green corridors and climate refugia – managed for Nature Positive conservation outcomes. The NCN integrates formal reserves and PCAs beyond the formal protected network – including stewardship lands and urban green space and infrastructure – to deliver functional connectivity and ecological resilience across ACT landscapes.
Nature Conservation Strategy (NCS)	A plan or a statement of proposals that guides to protect, manage and conserve native species indigenous to the ACT, and significant ecosystems of the territory. It contains strategies to address actual and potential impacts of climate change and includes anything required to be included by a conservator guideline.
Nature Positive	A term used to describe circumstances where nature – species and ecosystems – is being repaired and is regenerating rather than being in decline.
NCS Indicator Framework	A structured tool that defines measurable indicators for outputs, outcomes, and impacts defined under the NCS, enabling one to measure progress and evaluate achievements towards positive ecological, cultural and social gains.
Outcomes	Flow-on effects expected to result from our strategic *outputs* interacting with other things happening in the wider world; these may be short to long-term. Outcomes can also be described as pre-conditions for achieving a *goal*.
Outputs	The immediate results of activities within the sphere of control of the Strategy to deliver.
Priority Conservation Area (PCA)	Spatially defined areas identified as critical to achieving long-term Nature Positive conservation outcomes in the ACT. PCAs may include land both within and beyond the formal protected area network, including urban open space and rural leased lands. PCAs will contain critical habitat plus the area needed to support critical ecosystem function, providing focus for recovery programs and financial investment. These areas will be determined by strategic decision-making to align with Planning priorities, ensuring development is avoided in these critical areas to support functional connectivity and climate resilience.
Plant Community Type (PCT)	Spatial polygons that are mapped based on defined Plant Community Types; a specific assemblage of plant species that are determined to make up an ecological community, e.g. Natural Temperate Grassland of the South-Eastern Tablelands or White Box-Yellow Box-Blakely's Red Gum Grassy Woodland.
Reconstruction	A restoration approach that requires intensive intervention to re-establish ecosystem function. Techniques may include landform reconstruction, soil remediation, reconnection of waterways and natural flows, and the reintroduction of native plant and animal species. Ongoing threat control is essential to support long-term recovery and alignment with reference ecosystem benchmarks.
Reference Ecosystem Benchmark	A set of ecological benchmarks derived from data that define reference ecosystems.
Reference State	The highest and best level of recovery possible as defined by reference ecosystem benchmarks.

Term	Definition
Remnant Ecosystem	A patch of native vegetation or habitat that has survived clearing, degradation or any other human intervention as a result of protection, resilience, geographical or environmental factors.
Reserve	Refers to wilderness areas, national parks, nature reserves, catchment areas and special purpose reserves prescribed in Schedule 1 of the Nature Conservation Regulation 2015 (NC Regulations) that are protected under the NC Act.
Resilience	The ability of natural areas (ecosystems) to persevere and adjust despite changes and disturbances as a result of changing land use and climate change impacts. Resilience depends upon the continuity of ecological processes such as energy flows, nutrient cycles, hydrological cycles and food webs.
Revegetation	The process of re-establishing native vegetation in an area where it has been lost or significantly reduced. Under the restoration approach, the assisted and reconstruction stages require revegetation intervention because natural regeneration becomes limited.
Society for Ecological Restoration (SERA)	The Society for Ecological Restoration Australasia (SERA) is a neutral, independent, non-profit organisation that connects restoration industries across Australasia and through the peak international body for restoration (SER) globally. SER advances the science, practice and policy of ecological restoration to sustain biodiversity, improve resilience in a changing climate, and re-establish an ecologically healthy relationship between nature and culture.
SMART targets	A Specific, Measurable, Achievable, Realistic and Time-bound statement for what should be accomplished. In this Strategy, each target will be directly linked to an *objective* and act as quantitative benchmarks for evaluating success of the Strategy.
Theory of Change (ToC)	Theory of change in terms of the NCS is a logical explanation of how specific actions are connected to the outputs, outcomes and goals. It maps the steps and pathways needed to achieve short, middle term and long-term conservation outcomes.
Transformer Weed	Invasive plant species that have impact to the extent that they change the character, condition, form or nature of ecosystems over a substantial area relative to the extent of that ecosystem.