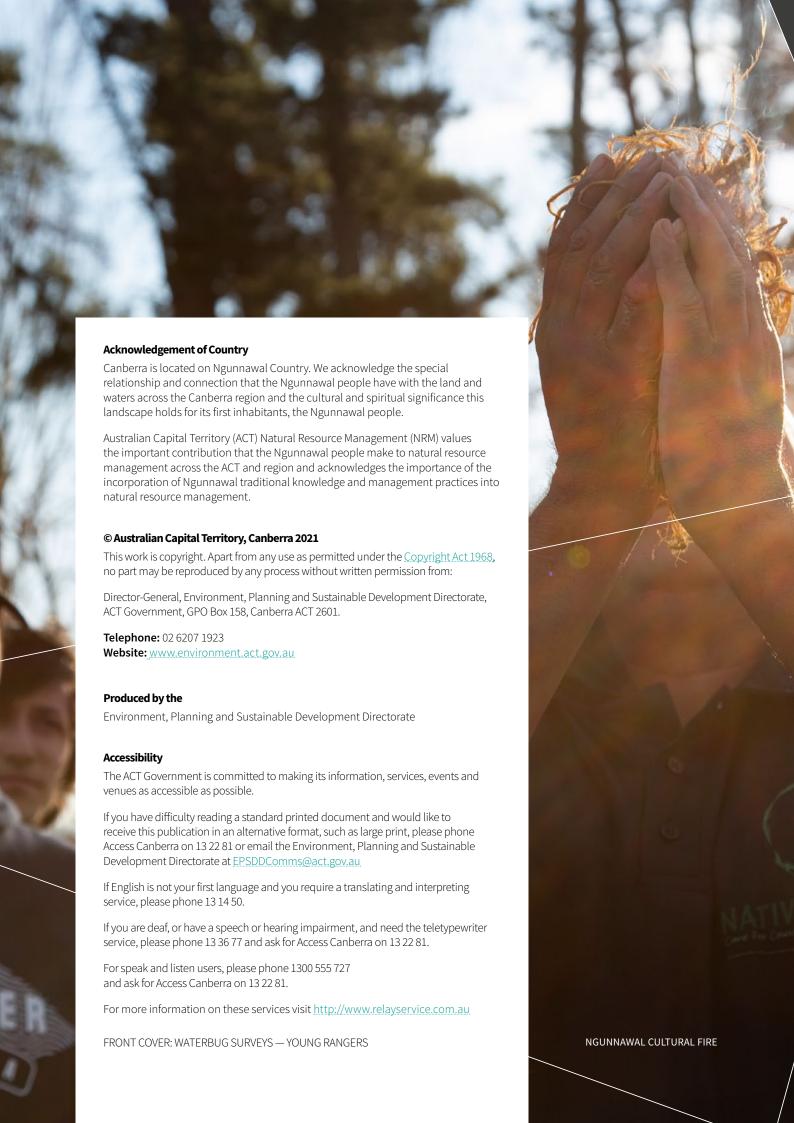
ACT Government

NATURAL RESOURCE MANAGEMENT PLAN

DISCUSSION PAPER 2021









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We propose a vision for the ACT: This region has the best managed natural resources in Australia.

But what does this vision look like on the ground? Well managed natural resources contribute to the wellbeing of all people of the ACT Region.

The ACT has a very diverse landscape with a variety of environmental, social and natural values. The collaborative management of these values by government, in partnership with community, is highly important to ensure that people and landscapes are connected and the ACT is well prepared for the challenges of the future. The community includes Ngunnawal Traditional Custodians, rural landholders, community groups, nongovernment organisations, urban dwellers, universities and local businesses and industry. Valuing the contribution of people and understanding ways in which people can better engage with landscape and culture in an integrated and respectful way is paramount to the success of our NRM planning. We recognise that we will see different perspectives depending on the lens through which people view our natural resources.

There will be greater pressures on our natural resources in the face of climate change,

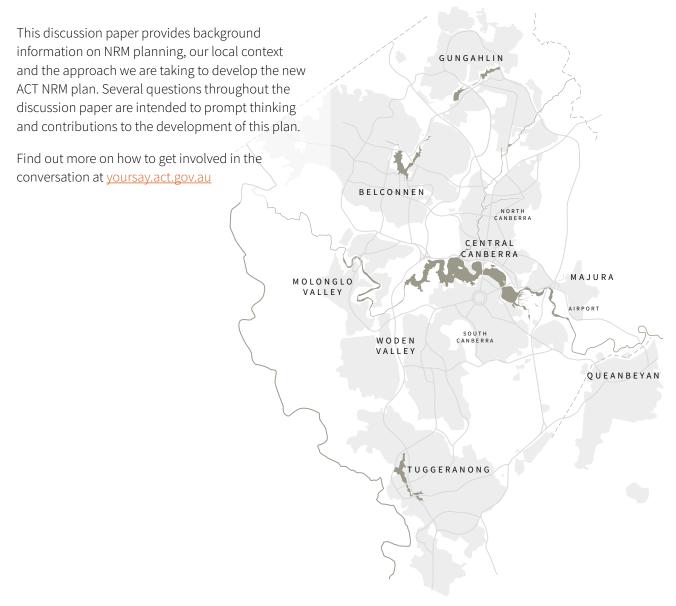
particularly water, agricultural production and biodiversity. Ecosystems will need to be resilient and adaptable through improved ecological connectivity across different land tenures, sustainable and integrated agricultural practices and the protection and restoration of catchment health, focussing on our precious waterways.

The development of the ACT NRM Plan offers the opportunity for the community and government to work together to further develop a shared vision for natural resource management in the ACT, and to look at ways in which this can form the basis for a healthy, connected and sustainable future for all of us.

The involvement, acknowledgement and respect for Ngunnawal knowledge and cultural practices in natural resource management is important for the ongoing management of Ngunnawal Country. The restoration and integration of cultural practices into natural resource management in partnership with the Ngunnawal people will provide ongoing cultural, social, economic, environmental and health and well-being outcomes for their people and Country.

INTRODUCTION— A new Natural Resource Management Plan for the ACT

The ACT Government is developing a new plan for managing our natural resources. In developing this plan, we recognise that managing natural resources is a shared responsibility. The Canberra community's contribution is vital to ensure the plan reflects community knowledge and aspirations as well as highlighting the key role that everyone has in delivering the plan.



BACKGROUND— **NRM Planning**

What is natural resource management (NRM)?

NRM is the integrated management of the natural resources that make up Australia's landscapes. such as land, water, soil, plants and animals. That is, our land, water and biodiversity and cultural assets. NRM takes account of human activities and natural processes to ensure they are balanced and carefully managed to deliver the best outcomes for today's needs and for future generations. NRM also considers the varied benefits provided to humans by the natural environment, which are becoming known as 'ecosystem services'. Such services include, for example, natural pollination of crops, clean air, extreme weather mitigation and human mental and physical wellbeing. Ecosystem services are often integral to the provision of clean drinking water, the decomposition of wastes, and resilience and productivity of food production.

Natural resources management also takes account of what the community values about their landscape. It is more than just the biophysical nature of the landscape and the human activities that impact it, but also community aspirations and values.

Australia is divided into 54 NRM regions, each coordinated by a local NRM organisation. Those organisations are a mix of government agencies and non-government organisations (NGOs) that deliver on-ground outcomes to meet national and local priorities. These organisations work with local communities from the paddock up to regional scale to plan and deliver programs that support healthy and productive country, viable communities and sustainable industries.

ACT NRM-the ACT's regional NRM body

ACT NRM is the organisation responsible for the ACT Region. It works with the local community, including the Aboriginal community, rural landholders, Landcare, ParkCare and catchment management, government and business groups. In collaboration with the community, it identifies priorities, brokers partnerships, shares knowledge, and delivers programs that improve the natural resources of the ACT.

ACT NRM is located within the ACT Government Environment, Planning and Sustainable Development Directorate (EPSDD) and is funded by both the ACT Government and the Australian Government under the Australian Government's Regional Stream of the National Landcare Program 2018-2023 (NLP2) - Regional Land Partnerships (RLP).

For more information on ACT NRM go to: environment.act.gov.au/act-nrm



NRM Planning in Australia

Regional NRM plans are integrated plans for the protection and sustainable use of natural resources within a particular region. The plans take different forms across Australia but generally identify and prioritise integrated NRM goals, targets and associated actions—and the pathways for achieving them. Regional NRM organisations are uniquely positioned to develop and implement regional NRM plans which align Australian Government, state/territory, regional, local and community NRM objectives and prioritise investments over the short, medium and long term. NRM plans also describe the process for monitoring and evaluation the achievement of these goals and objectives.

More information on NRM Planning across Australia can be found at: nrmregionsaustralia.com.au/what-is-nrm/.

Regional bodies such as ACT NRM are best placed to deliver NRM planning as they represent the interest of a diverse community and, along with the partners they collaborate with, are closest to implementation of on-ground activities on a landscape scale. NRM Regions Australia (the peak body for the 54 regional NRM bodies across Australia) has identified the following shared principles of integrated regional NRM and planning:

- » Participatory—bringing communities' aspirations and knowledge to the table
- » Integrating—across issues, tenures, land-uses, stakeholders
- » Knowledge-based—drawing upon multiple knowledges
- » Long-term and adaptive over time and place
- » Bring together multiple levels (and silos) of government policy
- » Nested—levels of planning, and is scalable

For further information, the NRM Regions Australia document on Regional NRM Planning can be found here: nrmregionsaustralia.com.au/wp-content/uploads/2017/09/Regional-NRM-Planning-final-draft-February-2014.pdf

NRM Planning in the ACT over the last 15 years

Two separate NRM Plans have been developed for the ACT over the last 20 years. The first plan was launched in 2004 and the most recent plan, Bush Capital Legacy – Plan for Managing the Natural Resources of the ACT, was launched in 2009. Bush Capital Legacy identified key NRM issues of concern and developed intermediate and long-term targets for community, land, water and biodiversity to guide government and community actions and NRM investments.

ACT NRM developed an investment plan in 2016 to provide strategic direction for NRM investment across the ACT (https://www.environment.act.gov. au/act-nrm/investment-plan). The new NRM plan will build on the knowledge and experiences of these previous processes and seek to position us to deal with the challenges present today and into the future.

The ACT NRM plan fits within a network of plans and strategies developed as part of environmental management across the ACT. These include overarching, guiding documents such as:

- » the ACT Nature Conservation Strategy
- » plans to guide conservation of certain ecosystems such as the Woodlands Strategy
- » plans that address certain management issues, such as the ACT Weeds Strategy
- » plans to govern management of specific sites, such as operational plans for nature reserves.



TABLE 1: SUMMARY OF LINKAGES TO RELEVANT STRATEGIES, PLANS AND LEGISLATION

NRM THEME	ACT LEGISLATION AND POLICIES GUIDING ACT NRM
Biodiversity conservation	Nature Conservation Act 2014
	» ACT Nature Conservation Strategy
	» Action plans for threatened species and ecosystems Pest Plants and Animals Act 2005
	» ACT Biosecurity Strategy
	» ACT Pest Animal Management Strategy
Ecosystem functions	Water Resources Act 2007
	» ACT Water Strategy
	» ACT and Region Catchment Strategy
	Climate Change and Greenhouse Gas Reduction Act 2010
	» ACT Climate Change Strategy
Ngunnawal Natural	ACT Aboriginal and Torres Strait Islander Agreement
Resource Management	ACT Heritage Act 2004
	ACT Nature Conservation Act 2014
Sustainable agriculture	ACT Weeds Strategy
	ACT Biosecurity Strategy
	ACT Pest Animal Management Strategy
	ACT NRM Investment Strategy
	ACT and Region Catchment Strategy

DEVELOPING A NEW NRM PLAN FOR THE ACT

Guiding principles

The plan will clearly define what it is trying to achieve. A few guiding principles proposed for the new NRM Plan are that it:

- » identifies the key threatening processes that the regional community is seeking to mitigate
- » provides an integrated strategic focus for protecting and managing the ACT's natural resources
- » understands and encompasses the needs and expectations of environmental volunteers, the Aboriginal community, rural landholders, researchers, Landcare groups and the broader ACT community by including these stakeholders in the development and delivery of the plan
- » is based on the best available scientific, economic and social information available and be appropriately scaled and scoped

- » identifies and prioritises NRM actions based on short-, medium- and long-term outcomes
- » identifies pathways to accessing and increasing investment in natural resource management from multiple sources
- » incorporates traditional ecological knowledge, where appropriate, in accordance with agreed protocols and with prior approval of the Ngunnawal custodians of the knowledge
- » provides ongoing knowledge and education to the next generation to enable future decisions to continue to support the natural resources of the ACT
- » manages for resilience of ecosystems and communities, including climate adaptation
- » Includes monitoring and evaluation to demonstrate effectiveness.

QUESTION: DO YOU AGREE WITH THESE PRINCIPLES? WHAT OTHER PRINCIPLES SHOULD GUIDE THE DEVELOPMENT OF THE PLAN?

Need for a new ACT NRM Plan

The 2009 Bush Capital Legacy and the 2016 NRM Investment Plan provided a solid framework for NRM planning and implementation in the ACT. It is now time to build on this work and develop a new ACT NRM Plan that reflects current community knowledge and aspirations, the latest scientific data and emerging challenges such as climate change.

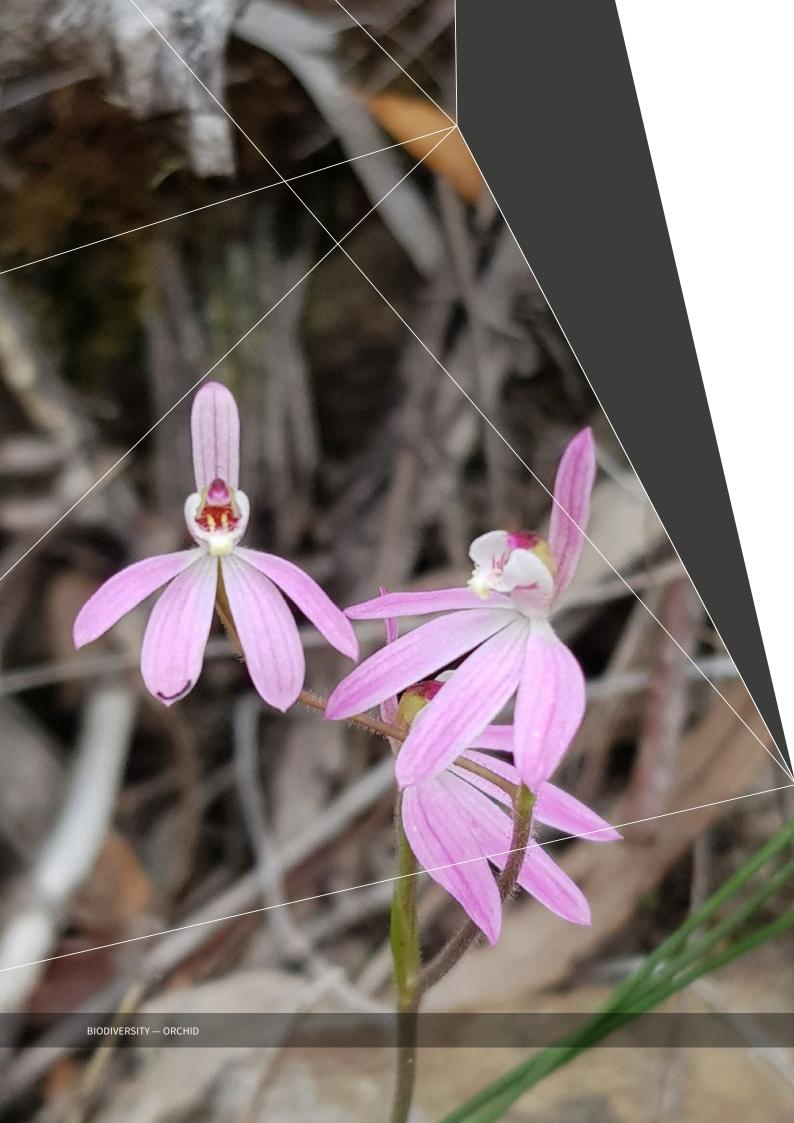
The new plan will look to the future and provide goals, actions and investments for the next 20 years. It will reflect new knowledge, Ngunnawal values and aspirations, changing community aspirations and address existing and emerging challenges to protect our natural resources.

The new plan will build on the many positive elements and changes that have occurred in NRM over the last decade, including:

- the extensive on-ground work that had been undertaken by the NRM, environmental and Landcare and Parkcare communities, rural landholders, Aboriginal groups, schools and other community organisations that have improved the condition of the ACT
- increased government acceptance of the Ngunnawal people's critical role in NRM and the increasing application of Ngunnawal Ecological Knowledge and the establishment of the Dhawura Ngunnawal Caring for Country Committee

- formation of the peak Landcare body, Landcare ACT
- continued growth and application of citizen science through volunteer groups such as Canberra Ornithologists Group and applications such as Canberra Nature Map
- ongoing commitment of environmental volunteers to protecting and improving natural environments, supported by the ACT Government and catchment groups
- cross-sectoral linkages between NRM, Landcare, the ACT Government directorates of Health, Education, Justice and Community Services, and the community sector, reflecting the increasing role that a healthy environment plays in our overall wellbeing
- ongoing work by ACT rural landholders to protect their natural resource base in partnership with ACT NRM, Landcare, the catchment groups and government
- continued expansion of the ACT conservation reserve system and the ongoing application of cutting-edge science to its management
- investment in new data to underpin improved NRM planning including soil landscape and hydrogeological mapping and similar
- ongoing role of the Australian and ACT governments in supporting NRM and Landcare in the ACT.





THE ACT REGION

Landuse and population

The ACT's population is more than 457,000 people. According to the latest population projections, the population is expected to increase to 700,000 by 2058. This growth is likely to lead to an expansion of the urban footprint, including continued population growth in the areas of Molonglo, Belconnen and Gungahlin (ACT Population Projections 2018–2058).

A growing city brings new challenges and opportunities for NRM, such as how to continue making advancements in natural resource management as the ACT's urban footprint expands.

The ACT NRM region covers 2,358km² in area with approximately:

- » 70% of the land area devoted to nature conservation or forestry
- » 15% devoted to agricultural uses
- » 15% comprising the urban footprint of the city of Canberra.

Agriculture continues to play a significant role. The Territory's 160 farming families collectively manage 40,000 hectares (15%) of the ACT, mainly for cattle, sheep and wool production, as well as horse agistment and equestrian enterprises.

Other ACT agricultural enterprises include eggs (freerange eggs and other), chickens, alpacas and llamas, fruit and vegetables, wine, olives and truffles. The ACT is a high flow traffic area, and the airport is now receiving international flights. These brings many positive services but also add to our biosecurity risk.

Our natural environment

Approximately 70% of the ACT is in conservation reserves, including in Namadgi National Park, Tidbinbilla Nature Reserve and the many urban reserves that make up Canberra Nature Park. These reserves offer protection for local species and ecosystems and vast recreational opportunities for our community.

The ACT is also intersected by the Cotter, Murrumbidgee and Molonglo rivers, the Ginninderra Creek and their tributaries. These provide habitat for native species, including threatened species, the water supply for Canberra and amenity for the community.

OUR COMMUNITY

We are lucky in the ACT to have a community with a love for the local environment and many community members who have a wealth of knowledge and enthusiasm to share in all areas of natural resource management.

THE NGUNNAWAL PEOPLE

Ngunnawal participation in natural resource management in the ACT has grown since 2009. This is reflected in:

» the formation of the Dhawura Ngunnawal Caring for Country Committee which provides guidance, direction, advice and decisions on the management of Ngunnawal Country

- the increasing application of Ngunnawal Ecological Knowledge in land management, assisted by the publication of Ngunnawal Plant Use book
- the explicit inclusion of Ngunnawal knowledge and history in ACT K-10 school curriculums using 'Understanding the land through the Eyes of the Ngunnawal People'
- » the growing number of Aboriginal staff working in land management and NRM roles
- the formation of several Aboriginal-owned businesses delivering land management and environmental services.

VOLUNTEERS

The ACT has the highest volunteering rate in Australia, with 36.8% of our population actively volunteering their time to help the community. These volunteers contribute over \$1.5 billion to the ACT economy every year (ACT VOLUNTEERING STATEMENT ACTION PLAN 2018-2021).

Volunteers' activities provide enriched and extended services that would not otherwise be available to the community without their support. The ACT State of the Environment Report (2019) calculates the ACT's environmental volunteers (across all environment sectors) contribute \$40-50 million per year to the environment of the ACT.

Landcare and NRM volunteer contributions include:

- » unparalleled local knowledge of the surrounding environment and local species
- physical labour—planting, weeding, removing debris, and caring for injured wildlife
- monitoring and evaluation
- administration and management of environmental group activities
- education and raising awareness of local environmental issues
- encouraging practices that support the needs of present and future generations.

THE RESEARCH COMMUNITY

The ACT benefits enormously from the location and easy access to key environmental research bodies in the ACT including CSIRO, the Australian National University, University of Canberra, University of NSW and the Canberra Institute of Technology. Many scientists and other specialists from these institutions are also active in the Landcare and environmental volunteering sectors.

In addition Australian Government agencies resident in Canberra also have significant specialist staff who contribute as citizen scientists.

Pressures on our natural resources and challenges going forward

Many of the challenges identified in Bush Capital Legacy (2009) are still challenges now, including:

- urban expansion into biodiverse lowland woodlands and grasslands
- fragmentation of habitats and ecological communities and loss of landscape connectivity
- » climate change
- pest plants and animals
- water extraction and waterway modification and degradation
- deteriorating water quality on our lakes and ponds
- inappropriate fire regimes.

Over the last decade some of these challenges have become more acute and are impacting negatively on all elements of the natural resources of the ACT. There are specific challenges related to climate change and pest plants and animals which are explored further below. It is recognised that some of the long-term impacts on habitats, species, ecological communities and the natural resource base remain unclear or unknown.

Key focus areas for a new plan

The key focus areas of natural resource management and therefore the new NRM Plan for the ACT include:

- Ngunnawal natural resource management
- biodiversity conservation
- ecosystem function
- sustainable agriculture
- community connection to nature and wellbeing
- climate change and resilience

QUESTION: ARE THERE OTHER MAJOR FOCUS AREAS IN NRM PLANNING WE SHOULD CONSIDER?



BIODIVERSITY CONSERVATION

The ACT has 52 threatened species including three key threatened ecological communities:

- Alpine sphagnum bogs and associated fens ecological community
- Natural temperate grassland of the southeastern highlands
- White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived native grasslands

Vegetation communities provide the homes for most threatened plants and animals and are under threat from a range of impacts. The 2019 ACT State of the Environment Report notes that grassland and woodland vegetation communities are the least represented in conservation areas. For those areas remaining, only 50% of the Yellow Box/Red Gum grassy woodland communities are located within conservation areas and only 30% of woodland, grassland and open forest communities are located within conservation areas. This highlights the need for NRM to address management of these important communities outside of conservation areas in order to secure their future.

QUESTION: WHAT ARE THE SPECIES, COMMUNITIES, AREAS OR ISSUES THAT SHOULD BE A MAJOR FOCUS IN NRM PLANNING?

ECOSYSTEM FUNCTIONS

Ecosystem functions are the natural processes and services provided by the natural environment that help sustain life on this planet. These functions include:

- » filtering and cleaning of air, water and soil
- » providing natural storage of the critical ingredients, such as nutrients, carbon and water, that sustain the various forms of life
- » creating habitats and ecosystem niches that provide the homes and food sources to many forms of life
- » providing fertile soils and water for agriculture.

CLIMATE CHANGE

Human induced pressures are causing significant disruption to these natural processes and services leading to environmental declines and extinctions.

Climate change is having an increasing impact on ecosystem functions and processes across the ACT and region. The 2017-20 extended period of dry weather conditions followed by smoke haze, bushfires and flooding rain in the ACT provides an example of the increasing severity, intensity and compounding of challenges facing the ACT and much of Australia. The summer of 2019–20 bushfires burnt more than 10 million hectares across all states and territories. In the ACT, the Orroral Valley fire burnt 87,923 hectares, largely in the Namadgi National Park (NNP), with more than 80% of the park burnt. It is estimated that 22% of NNP was burned at a high to very high fire severity. The 2020 fires in the ACT have seen some areas of NNP burnt twice in 17 years, with as yet unknown consequences for ecological processes.

The Bureau of Meteorology (BOM) confirms that the ACT experienced severe drought and a severe rainfall deficiency over a 36-month period (1 December 2016 to 30 November 2019), which provided some of the pre-conditions for the fires. BOM also notes that 2019 was Australia's warmest and driest year on record, with the annual national mean temperature 1.52 °C above average. 2019 was also notable for

widespread severe fire weather throughout the year and the highest national annual accumulated Forest Fire Danger Index since 1950, when national records began.

For more information go to:

bom.gov.au/climate/current/annual/aus/2019/

The drought, followed by subsequent fires across southern and eastern Australia and including the ACT, are part of the pattern of evidence that climate change impacts are increasing and intensifying. The World Meteorological Organisation confirms that climate change causes and impacts are increasing rather than slowing and that heatwaves were the deadliest meteorological hazard in the 2015–2019 period. This is affecting all continents and resulting in numerous new temperature records across the globe.

For more information go to: <u>public.wmo.int/en/media/press-release/global-climate-2015-2019-climate-change-accelerates</u>

While this section focusses on extremes, it is also worth noting that changes in average climate conditions, as well as in extremes, have the potential to push species and ecosystems outside their adaptive range. The changing climatic conditions will likely also see new species migrate into the ACT and changes in vegetation dynamics (e.g. weeds that were minor pests may thrive under changing climatic conditions).

QUESTION: HOW CAN NRM PLANNING BEST ADDRESS THE ISSUES ASSOCIATED WITH A CHANGING CLIMATE?

SUSTAINABLE AGRICULTURE

Sustainable agriculture is about supporting ACT farmers to sustain healthy farm ecosystems and improve productivity and increase farm profitability by addressing the vast array of challenges facing our farmers and impacting on farm resilience and productivity. These include challenges such as:

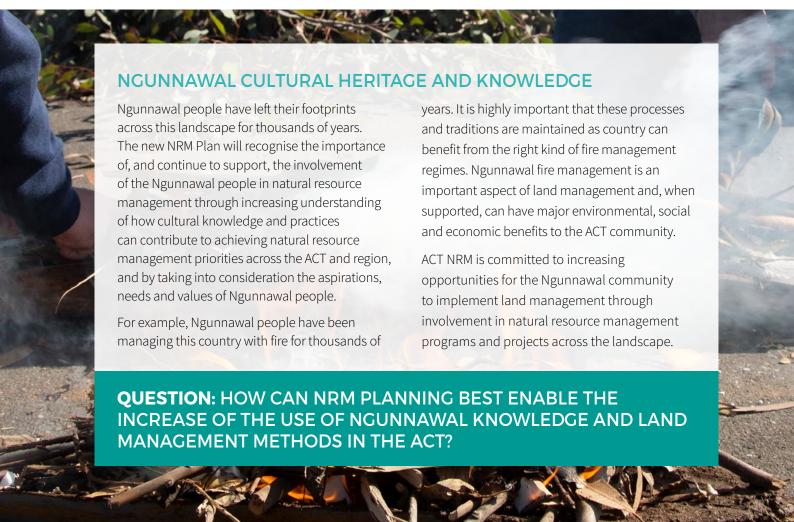
- » invasive weeds and pest animals
- » soil erosion, riparian erosion, and soil acidification
- » drought and climate change
- » loss of biodiversity, particularly in fertile lowland grasslands and box gum grassy woodlands.

For example, adapting to likely significant changes to the climate of the ACT and region will be aided by

connecting farmers to the latest science on climate change adaptation in agriculture. This may include supporting access to up to date and locally relevant tools, technology and information services and connecting landholders to groups and networks to enable sharing of knowledge and experience.

While climate change poses an all-encompassing threat and challenge to the natural resources of the ACT, there are other new and emerging threats impacting on natural resource management. These include the arrival and spread of new pest species into the ACT, including deer and the incursion of weeds such as Coolatai Grass, previously not seen here, as well as the inexorable spread of weeds such as Chilean Needle Grass and African Love Grass.

QUESTION: HOW CAN THE NRM PLAN BEST SUPPORT THE ACT FARMING COMMUNITY TO MAINTAIN SUSTAINABLE PRACTICES IN THE FACE OF EXISTING AND EMERGING CHALLENGES?



Community involvement

QUESTION: WHAT DO YOU THINK NEEDS TO BE INCLUDED IN THE NRM PLAN FOR THE ACT?

QUESTION: WHAT CHALLENGES DO YOU SEE FOR NATURAL RESOURCE MANAGEMENT IN THE ACT OVER THE NEXT DECADE?

QUESTION: HOW WOULD YOU LIKE TO BE ENGAGED THROUGH THIS PLANNING PROCESS?

We want the development of this plan to include discussion with the ACT community about the key areas the NRM Plan should focus on and, in particular, what the key opportunities and threats are for natural resource management over the next decade. Where should we be putting our efforts? Along with the questions we have posed throughout this document, ACT NRM is interested to hear community views on the opportunities/constraints of changing climate, the role of community and the support the community needs to be actively engaged in natural resource management.

As well as seeking community feedback on this discussion paper, the ACT NRM team will be working directly with a range of stakeholder groups within our community to develop the new plan. We will open the conversation up to the broader community.

For more information on how to get involved go to yoursay.act.gov.au.

TIMELINES

APRIL - MAY 2021

- » Discussion paper released seeking community engagement on the development of a new NRM Plan
- » Community workshops and targeted consultation with key stakeholders
- » Have your say and pop up locations for community engagement

JUNE - JULY 2021

» Listening report on consultation process released

- » Key stakeholder consultation on draft NRM Plan development
- » Draft NRM Plan developed in line with community input provided during engagement phase

LATE 2021

- » Draft NRM Plan placed on public exhibition
- Draft NRM Plan considered by ACT Government Cabinet
- » Publication of ACT NRM Plan 2021–2041



