

Australian Capital Territory

Nature Conservation (Natural Temperate Grassland) Conservation Advice 2020

Notifiable instrument NI2020–303

made under the

Nature Conservation Act 2014, s 90C (Conservation advice)

1 Name of instrument

This instrument is the *Nature Conservation (Natural Temperate Grassland) Conservation Advice 2020*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for Natural Temperate Grassland

Schedule 1 sets out the conservation advice for the Natural Temperate Grassland.

Arthur Georges
Chair, Scientific Committee
22 May 2020

Schedule 1

(see s 3)



ACT
Government

Environment, Planning and
Sustainable Development



ACT Scientific
Committee

CONSERVATION ADVICE

NATURAL TEMPERATE GRASSLAND

ELIGIBILITY

The ACT Scientific Committee has determined that the ecological community 'Natural Temperate Grassland' is eligible to be transferred to the Critically Endangered category in the ACT Threatened Ecological Communities List under the *Nature Conservation Act 2014* (NC Act). It was initially listed in the Endangered category in 1996 (refer to the Listing Background section below).

Natural Temperate Grassland in the ACT is encompassed in the 'Natural Temperate Grassland of the South Eastern Highlands' ecological community listed under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act). The Australian Government listed the 'Natural Temperate Grassland of the South Eastern Highlands' ecological community as Critically Endangered under the EPBC Act on 6 April 2016 due to:

- very severe decline (at least 90%) in geographic distribution (Critically Endangered)
- very restricted geographic distribution due to most patches being less than 10 ha, coupled with ongoing and demonstrable threats which could cause it to be lost in the immediate future (Critically Endangered)
- continued decline of functionally important species (Endangered)
- very severe reduction in the integrity of the community across its range such that the re-establishment of ecological processes, species composition and community structure within the range of variability of the ecological community is unlikely within the immediate future, even with positive human intervention (Critically Endangered).

Most patches of the ecological community are small. Listing Natural Temperate Grassland as Critically Endangered: recognises that its long-term survival is under threat; aims to prevent any further decline; and promotes and assists the recovery of its biodiversity and function.

Section 90A of the NC Act allows the Minister to transfer a nationally threatened ecological community in the Threatened Ecological Communities List from one category to another category that corresponds with the EPBC category.

DESCRIPTION AND SIGNIFICANCE

Natural Temperate Grassland is a native ecological community that is dominated by moderately tall (25–50 cm) to tall (50 cm–1.0 m) dense to open native tussock grasses (*Themeda triandra*, *Rytidosperma species*, *Austrostipa species*, *Bothriochloa macra*, *Poa species*). There is also a diversity of native herbaceous plants (forbs), which may comprise up to 70% of species present. The community is naturally treeless or may contain up to 10% cover of trees or shrubs in its tallest stratum. In the ACT, it occurs up to 1200 m above sea level (asl) in locations where tree growth is limited by cold air drainage.

While public appreciation of native grasslands may be generally low, with the ecosystems often undervalued and viewed as messy, unmanaged, and even threatening (Williams 2015) they are valued for their natural and cultural significance for past, present and future generations.

While the definition of Natural Temperate Grassland is expressed in terms of the vegetation, the ecological community comprises both flora and fauna, the interactions of which are intrinsic to the functioning of grassy ecosystems (ACT Government 2017). Fauna are essential for a range of functions such as pollination, seed dispersal, nutrient recycling and maintenance of soil condition (ACT Government 2017).

Threatened species found in Natural Temperate Grassland include three threatened grassland reptiles: Grassland Earless Dragon (*Tympanocryptis lineata* (syn *T. pinguicollis*)), Striped Legless Lizard (*Delma impar*) and Pink-tailed Worm-Lizard (*Aprasia parapulchella*); and two threatened species of invertebrates: the Perunga Grasshopper (*Perunga ochracea*), and the Golden Sun Moth (*Synemon plana*). Other significant invertebrates include Key's Matchstick Grasshopper (*Keyacris scurra*) and Canberra Raspy Cricket (*Cooraboorama canberrae*) (TSSC 2016).

Threatened flora species that occur in the Natural Temperate Grassland in the ACT include Baeuerlen's Gentian (*Gentiana baeuerlenii*), Ginninderra peppergrass (*Lepidium ginninderrense*) and Button Wrinklewort (*Rutidosia leptorhynchoides*) (ACT Government 2017), as well as, Austral Toadflax (*Thesium australe*) and Hoary Sunray (*Leucochrysum albicans* var. *tricolor*) (TSSC 2016).

DISTRIBUTION

The ACT's Natural Temperate Grassland community is encompassed in the '[Natural Temperate Grassland of the South Eastern Highlands](#)' ecological community that occurs at altitudes up to approximately 1200 m in and around the South Eastern Highlands of Australia. The community may occur in the general area extending from Mudgee in the north along the highlands to south of Delegate (including east Gippsland in Victoria) and to west of Tumbarumba, with the ACT in the centre of the area.

The distribution of Natural Temperate Grassland in the ACT extends from the low-lying plains of Canberra's urban area to valleys of up to 1200 m asl in the mountains of Namadgi National Park (Figure 1) (ACT Government 2017). However, the extensive modification of Natural Temperate Grassland since European settlement in the Canberra district from the early 1800s has resulted in the loss and fragmentation of the community. As a consequence, throughout its distributional range, Natural Temperate Grassland usually occurs as small and often isolated remnants, particularly in the lower elevation plains where the ACT's urban and industrial development is concentrated (ACT Government 2005).

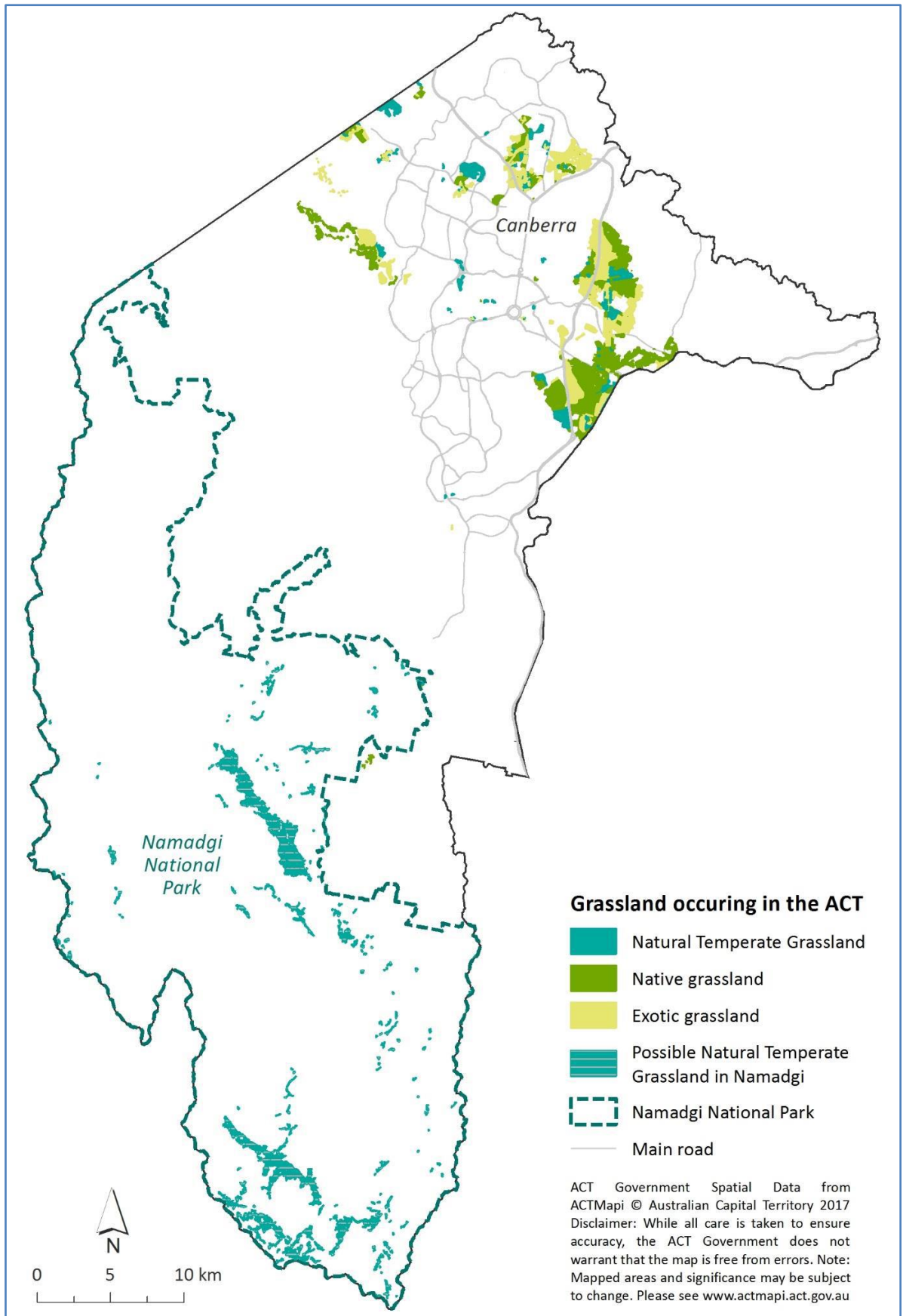


Figure 1. Distribution of Natural Temperate Grassland and lower condition grasslands (ACT Government 2017)

THREATS

Five emerging major threats to Natural Temperate Grassland in south-eastern Australia have been proposed by Williams and Morgan (2015), each of which is applicable to Natural Temperate Grassland in the ACT and detailed in the ACT action plan (ACT Government 2017). These threats include:

- the effects of historic habitat loss (such as fragmentation effects)
- ongoing loss and modification of native grasslands, mainly due to agricultural and urban development
- invasive plants and animals (likely to intensify over the next few decades)
- ecologically inappropriate disturbance regimes, particularly a decline in disturbance frequency in productive grasslands
- climate change (likely to intensify over the next few decades).

CURRENT PROTECTION AND MANAGEMENT IN THE ACT

A core focus of Natural Temperate Grassland management has been to ensure the community is protected in an adequate and representative reserve system. The majority of the remaining community is now protected in land managed by the ACT Government, including urban nature reserves, urban open space, roadsides and Namadgi National Park, although this remains an ongoing process (ACT Government 2017).

Other areas of Natural Temperate Grassland occur on land that is not exclusively managed for conservation, such as Canberra Airport, and land managed by the Commonwealth Government (e.g. Department of Defence land at Majura Training Area and Campbell Park and land managed by the National Capital Authority such as Yarramundi Grassland) (ACT Government 2017). In many cases management of Natural Temperate Grassland (and the associated threatened species) is undertaken in consultation with the ACT Government and/or guided by management plans (e.g. Canberra Airport 2010).

MAJOR CONSERVATION OBJECTIVES

The overall objective is to conserve Natural Temperate Grassland in perpetuity as a viable and well-represented community across its natural geographic range in the ACT (ACT Government 2017). This includes managing and restoring natural ecological and evolutionary processes within the community.

Specific objectives of the ACT Action Plan (ACT Government 2017) include:

1. conserve all remaining areas of Natural Temperate Grassland in the ACT that are in moderate to high ecological condition
2. retain areas of native grassland in lower ecological condition that serve as ecological buffers or landscape connections, or that are a priority for restoration
3. manage Natural Temperate Grasslands to:
 - maintain and improve grassland structure and function
 - reduce the impacts of threats
 - improve threatened species habitat
 - conserve grassland biodiversity
4. increase the extent, condition and connectivity of Natural Temperate Grassland in the ACT by restoring priority grassland sites
5. promote a greater awareness amongst all relevant agencies, landholders and stakeholders of the objectives of this Action Plan, and strengthen community engagement in grassland conservation.

OTHER RELEVANT ADVICES, PLANS OR PRESCRIPTIONS

- [ACT Native Grassland Conservation Strategy and Action Plans](#) (ACT Government 2017)
- [Commonwealth Approved Conservation Advice – Natural Temperate Grassland of the South East Highlands](#) (TSSC 2016)

LISTING BACKGROUND

Natural Temperate Grassland was listed in the ACT as an Endangered ecological community on 15 April 1996 in accordance with section 21 of the *Nature Conservation Act 1980*. At that time, the Flora and Fauna Committee (now the Scientific Committee) concluded that the assessment satisfied the following criteria:

- 3.2 Community is subject to current and continuing threats or other processes likely to lead to premature extinction, as demonstrated by:
- 3.2.1 severe decline in distribution
 - 3.2.2 marked alteration of composition or structure.

These criteria were met due to the following reasons:

- the area of natural temperate grasslands in the ACT has been severely reduced
- there has been significant alteration in the structure and species composition of the grasslands
- remaining sites are severely fragmented and the potential movement of native fauna and flora between sites is seriously limited
- remaining sites are threatened by urban expansion, over-grazing, tree planting, altered burning patterns, weed invasion and nutrient enrichment.

'Natural Temperate Grassland of the Southern Tablelands of New South Wales and the Australian Capital Territory' was listed as Endangered under the EPBC Act in 2000. This listing was reviewed and reassessed by the Commonwealth Threatened Species Scientific Committee (TSSC 2016) to take account of new information and to recognise a broader distribution than was acknowledged in the original listing. On 6 April 2016 it was replaced with the 'Natural Temperate Grassland of the South Eastern Highlands' and listed as Critically Endangered.

Under the *Nature Conservation Act 2014* the category of Critically Endangered was included on the Threatened Ecological Communities List for the first time. In 2019, the Scientific Committee recommended that Natural Temperate Grassland be transferred to the Critically Endangered category to align with the EPBC Act listing.

REFERENCES

ACT Government 1997. *Natural Temperate Grassland: An endangered ecological community. Action Plan No. 1*. Environment ACT, Canberra.

ACT Government 2005. *A vision splendid of the grassy plains extended: ACT Lowland Native Grassland Conservation Strategy. Action Plan No. 28*. Arts, Heritage and Environment, Canberra.

ACT Government 2017. *ACT Native Grassland Conservation Strategy and Action Plans*. Environment, Planning and Sustainable Development, Canberra.

Canberra Airport 2010. *Canberra Airport Threatened Species Management Plan*. Canberra Airport, Canberra.

Threatened Species Scientific Committee 2016. *Approved Conservation Advice (including listing advice) for Natural Temperate Grassland of the South Eastern Highlands* (EC 152). Department of the Environment, Canberra.

Williams KJH 2015. Understanding the social context of native grasslands: pp. 163–181, in *Land of sweeping plains: managing and restoring the native grasslands of south-eastern Australia*, eds NSG Williams, A Marshall, JW Morgan. CSIRO Publishing, Clayton South.

Williams NSG and Morgan JW 2015. The native temperate grasslands of south-eastern Australia pp. 27–59, in *Land of sweeping plains: managing and restoring the native grasslands of south-eastern Australia*, eds NSG Williams, A Marshall, JW Morgan. CSIRO Publishing, Clayton South.

FURTHER INFORMATION

Further information can be obtained from the Environment, Planning and Sustainable Development Directorate (EPSDD). Phone: (02) 132281, EPSDD Website: <http://www.environment.act.gov.au>