



Australian Government

Department of Sustainability, Environment,  
Water, Population and Communities

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# FARMING AND NATIONALLY PROTECTED NATURAL GRASSLANDS OF THE MURRAY VALLEY PLAINS

The Natural Grasslands of the Murray Valley Plains is a type of naturally treeless grassland occurring on the plains of western and northern Victoria (including the Victorian Riverina), extending into the southern parts of the Riverina in New South Wales. Although occurring near the Murray River and other major tributaries, it is a dryland ecological community occurring above the floodplains.

The grasslands provide habitat for a number of threatened plants and animals. Since European settlement, most of the grasslands have been cleared, invaded by weeds, or otherwise degraded such that few remnants remain in good condition.



Natural Grasslands of the Murray Valley Plains  
(DSEWPaC)

The Natural Grasslands of the Murray Valley Plains that remain in good condition are protected under Australia's national environmental law, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), being listed as a critically endangered ecological community on 8 September 2012.

## What does national protection of the ecological community mean for landholders?

The aim of the national environmental law is to protect Australia's unique flora, fauna and habitats. The department seeks to work collaboratively with landholders, state and local governments, and other groups to achieve good environmental outcomes. Existing and routine farming activities, and actions taken in accordance with state vegetation legislation, are generally exempt from the EPBC Act. In fact, for many cases, supportive farming practices have helped to retain natural grasslands and listing further supports their future management. Efforts to conserve and manage grasslands may now receive funding through Australian Government programs such as Caring for Our Country and the Biodiversity Fund (see [www.nrm.gov.au](http://www.nrm.gov.au)).



## What are the Natural Grasslands of the Murray Valley Plains and where can they be found?

The Natural Grasslands of the Murray Valley Plains is limited to a particular kind of grassland that is naturally treeless or almost so, with sparse tree cover. Such grasslands do not naturally occur in many areas. For example, the extensive grasslands on the Hay plains to the north are not part of the listed grassland community, as they are not natural grasslands, but are derived from clearing past saltbush or woodland vegetation.



The ecological community occurring on a red clay landscape (DSEWPac)

The Natural Grasslands of the Murray Valley Plains ecological community has these **general diagnostic features**:

- Distribution is primarily in the southern parts of the Riverina bioregion, with occurrences also on the Wimmera plains of the Murray Darling Depression bioregion. Other outlying occurrences are also in the Murray Darling Depression bioregion and the NSW South

Western Slopes bioregion (as defined by the 2012 Interim Biogeographic Regionalisation of Australia – IBRA). The approximate northern limit of the ecological community is in the Murrumbidgee subregion (IBRA RIV2), near the northern boundary of the Murray Catchment Management Authority (CMA) in NSW. At the time of listing it is known to occur within the following CMAs:

- Victoria – Goulburn-Broken
- Victoria – Mallee
- Victoria – North Central
- Victoria – North East
- Victoria – Wimmera
- NSW – Murray.

[Note: in the northern part of the distribution of the ecological community, the *Listing Advice*, on the department's website, details a method to help distinguish the listed natural grasslands from grasslands derived from clearing past saltbush or woodland vegetation]

- It typically occurs on a landscape of flat alluvial lowland plains with heavy-textured grey, brown and red clays.
- The vegetation is open with trees or large shrubs being absent or sparse, limited to scattered individuals. The grassland has a diversity of native grasses and forbs (wildflowers), with small chenopods (small arid shrubs) mixed between. The native species present in the ground layer may include:
  - Grasses: for example, wallaby grasses such as white-top (*Rytidosperma* spp., formerly called *Austrodanthonia* spp.), spear grasses such as plains grass (*Austrostipa* spp.), and windmill grasses (*Chloris* spp. and *Enteropogon* spp.).





- Forbs/Herbs: for example, lilies (*Arthropodium* spp. and *Bulbine* spp.), burr-daisies (*Calotis* spp.), everlastings (*Chrysocephalum* spp.), scaly buttons (*Leptorhynchos* spp.), minnie daisy (*Minuria* spp.), lambs-tails (*Ptilotus* spp.), paper sunray (*Rhodanthe* spp.), sidas (*Sida* spp.) and Swainson or Darling peas (*Swainsona* spp.).
- Small shrubs (<1m): for example, some saltbushes and bluebushes (*Atriplex* spp. and *Maireana* spp.).

Further information is available to help you find out if the Natural Grasslands of the Murray Valley Plains might be present on your land. These can be downloaded from the department's website at: [www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl](http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl)

- Please refer to the *Listing Advice* if you want a detailed, technical description of the ecological community. This is also useful for professional environmental consultants and assessment officers.
- Please refer to the indicative distribution map of the ecological community to see the broad area in which the Natural Grasslands of the Murray Valley Plains ecological community occurs. The ecological community has been heavily cleared and is fragmented within this area. Also, it is quite likely that not all grasslands within this area would meet the condition thresholds required to be the nationally-listed ecological community (see flowchart on page 4).

There is also a range of information about grasslands including their importance, the plants and animals that rely on them, and how to manage them, available on the websites of state government agencies and CMAs. References to some of these are given in the listing and conservation advice for the Natural Grasslands of the Murray Valley Plains.



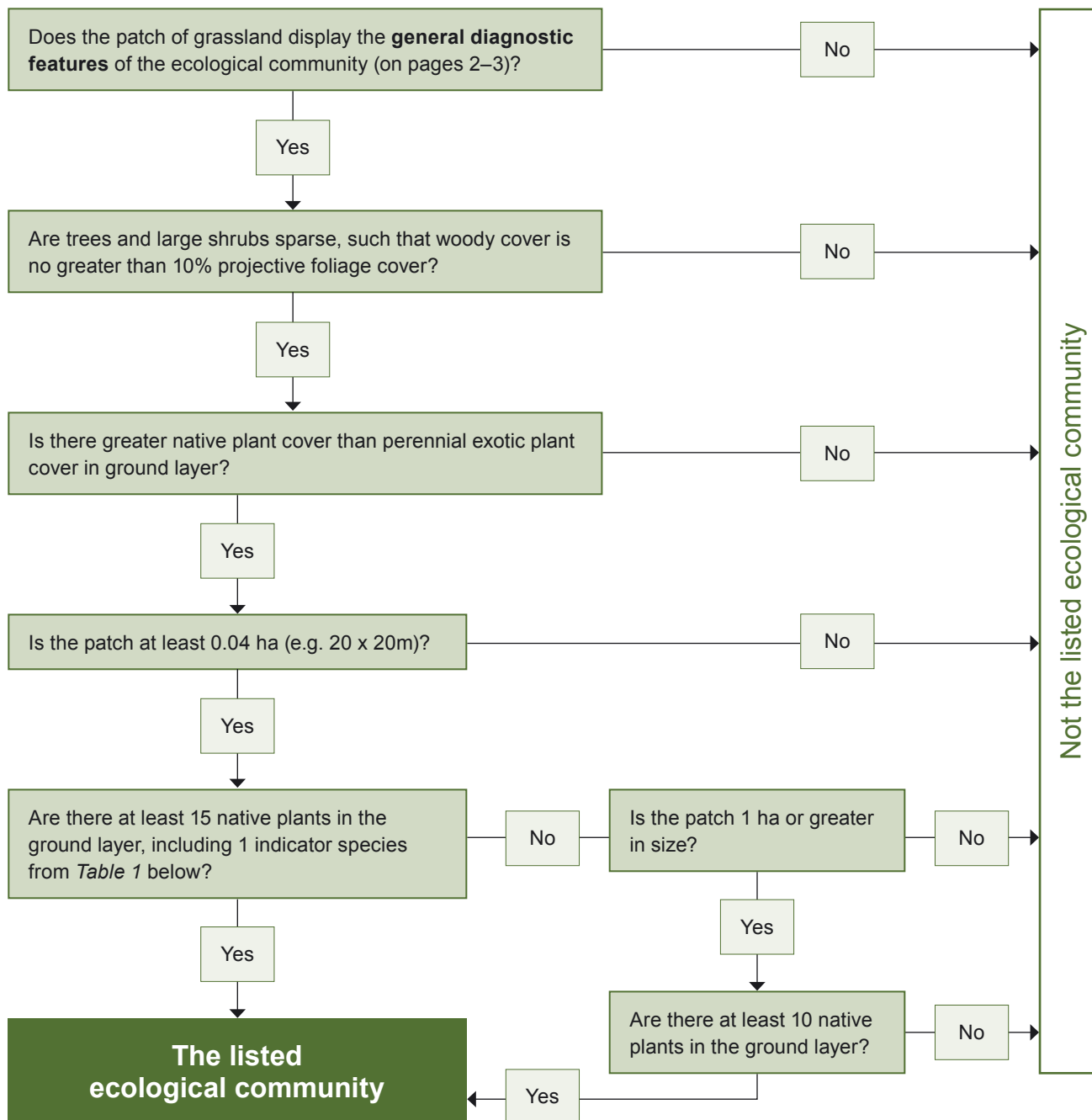
*Ptilotus nobilis* subsp. *nobilis* (syn. *P. exaltatus*)  
(lambs tails; pink mulla mulla) (DSEWPaC)

## How do I know whether the Natural Grasslands of the Murray Valley Plains on my property are protected?

Natural Grasslands of the Murray Valley Plains is only protected under national environmental law when it is in relatively good condition. Condition is best assessed at times when the diversity of plants is most evident (e.g. flowering periods such as spring) and not after recent disturbances.

Once a grassland patch is identified as having the **general diagnostic features** of the ecological community (listed above), then it may be identified as good condition and be protected under national environmental law if it meets the following criteria:





Condition is explained in more detail in the *Listing Advice*.

[www.environment.gov.au/biodiversity/threatened/communities/pubs/117-listing-advice.pdf](http://www.environment.gov.au/biodiversity/threatened/communities/pubs/117-listing-advice.pdf)



**Table 1: Species typically indicative of high quality grassland with little to no history of cultivation.**

<i>Arthropodium fimbriatum</i> (Nodding chocolate lily)	<i>Lepidium phlebopetalum</i> (Veined peppergrass)
<i>Arthropodium milleflorum</i> (Small vanilla lily)	<i>Leptorhynchos orientalis</i> (Annual buttons)
<i>Asperula conferta</i> (Common woodruff)	<i>Leptorhynchos squamatus</i> (Scaly buttons)
<i>Austrostipa gibbosa</i> (Spear grass)	<i>Leptorhynchos tetrachaetus</i> (Little buttons)
<i>Brachyscome chrysoglossa</i> (Yellow-tongue daisy)	<i>Leptorhynchos waitzia</i> (Button immortelle)
<i>Brachyscome dentata</i> (Lobe-seed daisy)	<i>Leucochrysum molle</i> (Soft sunray; Hoary sunray)
<i>Bulbine bulbosa</i> (Bulbine lily)	<i>Levenhookia dubia</i> (Hairy stylewort)
<i>Calocephalus citreus</i> (Lemon beauty-heads)	<i>Linum marginale</i> (Native flax; Wild flax)
<i>Calotis anthemoides</i> (Cut-leaf burr-daisy)	<i>Lomandra effusa</i> (Scented mat-rush; Iron-grass)
<i>Calotis scabiosifolia</i> (Rough burr-daisy)	<i>Maireana aphylla</i> (Leafless bluebush)
<i>Cheilanthes</i> spp. (Rock ferns)	<i>Maireana cheelii</i> (Chariot wheels)
<i>Chenopodium desertorum</i> subsp. <i>virosus</i> (Frosted goosefoot)	<i>Maireana enchylaenoides</i> (Wingless bluebush)
<i>Chrysocephalum</i> sp 1 (Common everlasting)	<i>Maireana excavata</i> (Bottle bluebush)
<i>Craspedia</i> spp. (Billy-buttons)	<i>Maireana humillima</i> (Dwarf bluebush)
<i>Daucus glochidiatus</i> (Native carrot)	<i>Maireana pentagona</i> (Hairy bluebush)
<i>Dianella</i> spp. (Flax lilies)	<i>Microseris</i> spp. (Yam daisy; Murnong)
<i>Diuris</i> spp. (Donkey orchids)	<i>Minuria leptophylla</i> (Minnie daisy)
<i>Drosera</i> spp. (Sundews)	<i>Myriocephalus rhizocephalus</i> (Woolly-heads)
<i>Eriochlamys behrii</i> (Woolly mantle)	<i>Ophioglossum</i> spp. (Adder's-tongue fern)
<i>Eryngium plantagineum</i> (syn. <i>Eryngium paludosum</i> ) (Long eryngium)	<i>Pimelea spinescens</i> subsp. <i>spinescens</i> (Spiny rice-flower)
<i>Goodenia gracilis</i> (Slender goodenia)	<i>Plantago drummondii</i> (Dark plantain; Sago-weed)
<i>Goodenia pusilliflora</i> (Small-flower goodenia)	<i>Plantago gaudichaudii</i> (Narrow-leaf plantain)
<i>Hyalosperma glutinosum</i> (Golden sunray)	<i>Pogonolepis muelleriana</i> (Stiff cup-flower)
<i>Hyalosperma</i> spp. (Sunrays)	<i>Prasophyllum</i> spp. (Leek orchids)
<i>Isoetopsis graminifolia</i> (Grass cushion)	<i>Pterostylis</i> spp. (Greenhood orchids)
<i>Leiocarpa panaetioides</i> (Woolly buttons)	<i>Ptilotus erubescens</i> (Hairy tails)





<i>Ptilotus nobilis</i> subsp. <i>nobilis</i> (formerly <i>P. exaltatus</i> ) (Lambs-tails)	<i>Themeda triandra</i> (Kangaroo grass)
<i>Ptilotus spathulatus</i> (Pussytails; Cats paws)	<i>Thysanotus</i> spp. (Fringed lilies)
<i>Rhodanthe pygmaea</i> (Pygmy sunray)	<i>Triptilodiscus pygmaeus</i> (Common sunray)
<i>Sclerolaena napiformis</i> (Turnip copperburr)	<i>Velleia paradoxa</i> (Spur velleia)
<i>Swainsona murrayana</i> (Slender darling-pea)	<i>Vittadinia pterochaeta</i> (Winged New Holland daisy; Rough fuzzweed)
<i>Swainsona plagiotropis</i> (Red swainson-pea)	<i>Wahlenbergia gracilentia</i> (Annual bluebell; Hairy annual bluebell)
<i>Swainsona procumbens</i> (Broughton pea; Swamp pea)	<i>Wurmbea dioica</i> (Early nancy)
<i>Swainsona sericea</i> (Silky swainson-pea)	<i>Wurmbea latifolia</i> (Broad-leaf early nancy)

## Why is it important to protect the ecological community?

The Natural Grasslands of the Murray Valley Plains ecological community has been subject to numerous threats causing a significant decline in quality and extent. Some of the most common causes of grassland loss and degradation are clearing, fertiliser application, weed invasion, overgrazing and planting of trees and large shrubs into these naturally treeless grasslands. Further degradation of habitats has potentially serious impacts for threatened flora and fauna. The Natural Grasslands of the Murray Valley Plains ecological community provides vital habitat for nationally listed fauna species, including the plains-wanderer (*Pedionomus torquatus*), striped legless-lizard (*Delma impar*), and golden sun moth (*Synemon plana*). The decline of these species is associated with the decline in the extent and the quality of the ecological community.



Grasslands showing evidence of past cultivation (DSEWPaC)

Despite this decline in quality and extent, what remains of the ecological community continues to be of significant value. In addition to creating habitat, wildlife corridors and refuge, healthy ecological communities contribute ecosystem services that benefit landholders and society. These include: the natural management of air, water and healthy soils; the reduction or control of erosion, salinity and acid sulphate soils; providing relatively drought-resistant feed for stock; and facilitating pollination.



Many farmers who retain good quality native grasslands on their properties have managed them well and should be encouraged to continue doing so. Activities such as grazing may still be used to manage these areas in a sustainable way. If properly managed they also provide ongoing drought resistant fodder and assist with superfine wool production.

Natural Grasslands of the Murray Valley Plains also occur in close association with other ecological communities nationally-listed since 2000, recognising the important landscape scale value of threatened vegetation. These other threatened ecological communities include Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of south-eastern Australia, Buloke Woodlands of the Riverina and Murray-Darling Depression bioregions, Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains, Weeping Myall Woodlands, and White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland.

## What does national protection of the ecological community mean for farmers and graziers?

The Natural Grasslands of the Murray Valley Plains is a critically endangered ecological community. National protection of the ecological community means that activities which commenced before the listing of the ecological community can continue without approval. Further, the aim of the national environmental law is to protect Australia's unique flora and fauna. Therefore, the department seeks to work collaboratively with landholders to achieve satisfactory environmental outcomes.

## What farming activities are unaffected and which require consideration?

New or changed activities that are likely to have an irreversible or long-term detrimental impact on the ecological community may need Australian Government approval. These include:

- Permanently clearing large areas of the ecological community.
- Introducing grazing, significantly intensifying grazing or changing from grazing to cropping within or near the ecological community.
- Substantially changing or intensifying methods of weed control or fertiliser use in or adjacent to the ecological community.
- Renovating or improving pasture by introducing exotic plant species, mechanical disturbance or cultivation, and the addition of irrigation to significant areas of the ecological community.

Farming practices which do not require approval from the Australian Government include the following:

- Ongoing grazing, horticultural or cropping activities.
- Maintaining existing fences, roads, internal access tracks and firebreaks.
- Maintaining farm gardens and orchards.
- Maintaining existing farm dams or water storages.
- Replacing and maintaining sheds, yards and other farm buildings.
- Controlling weeds by hand or other methods applied with minimal disturbance to native species (e.g. selective spot spraying).
- Moving farm vehicles and machinery providing there is a minimal impact on native vegetation.



## Can I get help to improve or restore the Natural Grasslands of the Murray Valley Plains?

The Australian Government has a variety of funding schemes, particularly Caring for Our Country and the Biodiversity Fund, to encourage landholders to continue to conserve biodiversity and ecosystem services on their properties. Listed ecological communities may also provide opportunities for targets for projects delivered through CMAs or other agencies or organisations.

For more information go to [www.nrm.gov.au](http://www.nrm.gov.au) or contact:

- the local NRM regional body – [www.nrm.gov.au/about/nrm/regions/index.html](http://www.nrm.gov.au/about/nrm/regions/index.html) or
- Caring for our Country Regional Officers – [www.nrm.gov.au/contact/officers.html](http://www.nrm.gov.au/contact/officers.html)



*Pedionomus torquatus* (plains-wanderer) (Tom Wheller)

## Where can I get more information?

More information on the Natural Grasslands of the Murray Valley Plains, its condition thresholds, threats and priority conservation actions is contained in the comprehensive listing advice and the conservation advice for this ecological community, at [www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=117&status=Critically+Endangered](http://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=117&status=Critically+Endangered)

For free advice on whether or not an activity may need Australian Government approval contact the Department of Sustainability, Environment, Water, Population and Communities

Phone: 1800 803 772

Email: [ciu@environment.gov.au](mailto:ciu@environment.gov.au)

Community Information Unit  
Department of Sustainability, Environment, Water,  
Population and Communities  
GPO Box 787  
Canberra ACT 2601.

Website: [www.environment.gov.au/biodiversity/threatened/communities.html](http://www.environment.gov.au/biodiversity/threatened/communities.html)  
for information about threatened communities

or

[www.environment.gov.au/epbc/approval.html](http://www.environment.gov.au/epbc/approval.html)  
for information about referrals and approvals

If you are a farmer, advice is also available from the department's environment liaison officer at the National Farmers' Federation.

Phone: 1800 704 520

Email: [environment@nff.org.au](mailto:environment@nff.org.au)

Web: [www.environment.gov.au/farming](http://www.environment.gov.au/farming)

