Australian Government

Department of Agriculture, Water and the Environment

Eastern Mallee Bird Ecological Community – Consultation Guide for Landowners

Nominated as a National Threatened Ecological Community

Malleefowl *(Leipoa ocellata)* [centre]; Gilberts Whistler (*Pachycephala inornata)* [top left]; Black-eared Miner *(Manorina melanotis)* [right]; White-fronted Honeyeater (*Purnella albifrons)* [bottom left].
All images © Brian Furby, used with permission.

The Eastern Mallee Bird Ecological Community was nominated as a potential threatened ecological community and is being assessed by the independent Threatened Species Scientific Committee to determine if it meets the criteria for listing under the national environment law (*Environment Protection and Biodiversity Conservation Act 1999* or EPBC Act).

The Eastern Mallee Bird Ecological Community is a group of bird species that are living together and interacting within a particular habitat – in this case, mallee woodland and shrubland habitat in south-eastern Australia (see map). This animal assemblage is characterised by 52 bird species from 23 separate bird families. They include several iconic threatened mallee birds, such as the Mallee Emu-wren, as well as other species that are more widespread, but characteristic of south-eastern mallee woodlands, such as the Chestnut Quail-thrush.

Consultation details

Comments are sought on Committee's **Draft Conservation Advice** for the Eastern Mallee Bird Community, including a listing assessment as Endangered.

Comments close 28 August 2020

About the assessment

Under the EPBC Act an ecological community is a particular group of plants and/or animals and/or other organisms that live together in a particular area of nature or habitat type. Such an ecological community is eligible for listing as threatened if it is facing a risk of extinction in the wild, as determined in accordance with prescribed criteria. The simplest form of extinction is when an ecological community has been totally destroyed and all occurrences have been lost or removed. It is more common, however, for ecological communities to be at risk of extinction by transformation rather than complete loss – becoming different communities with different characteristic species.

The criteria used to determine the level of risk for an ecological community are set out in the EPBC Regulations. There are six criteria, each representing a different type of extinction risk. An ecological community is considered threatened if it meets the thresholds under any of the six criteria, it does not need to be threatened under all of them. The overall threat category is determined by the highest threat category met - vulnerable, endangered or critically endangered.

The decision to list an ecological community as nationally threatened is made by the federal environment Minister. It follows a rigorous and transparent assessment by the Threatened Species Scientific Committee. Their assessment process for potential threatened ecological communities culminates in advice on listing and conservation which is provided to the Minister. Once an ecological community is listed, the Committee's advice is then published as an approved Conservation Advice.

About the Eastern Mallee Bird Ecological Community

The Eastern Mallee Bird Mallee Community is an assemblage of native bird species that are dependent on, or strongly associated with, mallee woodland and shrubland habitats in south-eastern Australia.

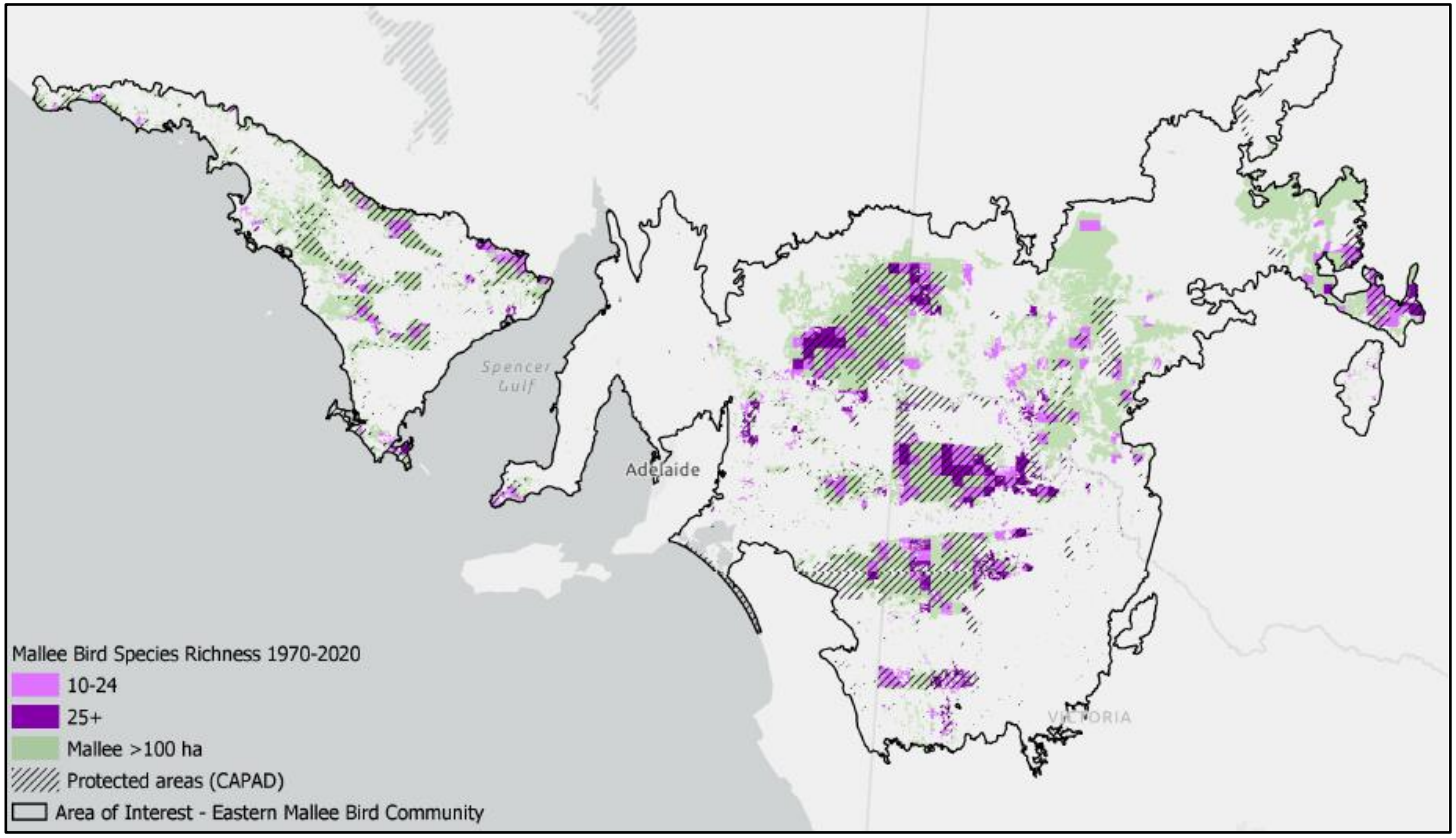
'Mallee' refers to the shrubby growth habit shown by some eucalypt tree species that have several separate woody stems rising from a large basal structure known as a lignotuber. The understorey below the mallee tree canopy is a variable mix of native species of shrubs, chenopods, heath, grasses and/or spinifex.

Mallee vegetation occurs in the drier, semi-arid parts of mainland southern Australia, from WA to Victoria. The Eastern Mallee covers an area of about 26 million ha across the Eyre Yorke Block and Murray Darling Depression IBRA bioregions[1] of NSW, SA and Victoria, where mallee is the most extensive vegetation type present (see map, next page). About 7 million ha of mallee vegetation remains scattered across the region, including in several large conservation reserves. The Eastern Mallee Bird assemblage is uncommon, however, and most likely to occur in the larger, more intact mallee remnants.

[1] IBRA bioregion refers to the Interim Biogeographical Regionalisation of Australia v7 (DoE, 2013). IBRA bioregions are large geographically distinct areas of similar climate, geology and landform with corresponding similarities in their vegetation and animal communities. Australia is currently divided into 89 bioregions and 419 subregions, including offshore islands.

Map showing the Eastern Mallee region (black outline) and the likely occurrences of the Eastern Mallee Bird Community (pink and purple polygons) relative to mallee habitats (green) and conservation reserves (shaded).

The map is indicative of where the bird community may occur, the purple areas showing where it is more likely to be found, mostly within conservation reserves. The bird community is increasingly rare and, as presently defined, only occurs in large areas dominated by native mallee vegetation and only where a large diversity of particular bird species is found together. Therefore, it will not be found within all the shaded areas shown on the map and even when present, it is likely to only occur in a small proportion of that area.



Map prepared by the Environmental Resources Information Network, (ERIN), Department of Agriculture, Water and the Environment (2020) based on data from:

- the National Vegetation Information System v5.1 for mallee habitats (MVGs 14 and 32, patches >100ha);
- Atlas of Living Australia records for member bird species. Pink polygons show aggregations of 10 or more mallee bird species and purple polygons show aggregations of 25 or more mallee bird species, based on occurrences within 10x 10 km grids recorded between 1970 to 2020;
- CAPAD database for conservation reserves.

How is the Eastern Mallee Bird Ecological Community identified?

The proposed Eastern Mallee Bird Community is characterised by an assemblage of 52 terrestrial bird species shown in Table 1. These birds are dependent on, or strongly associated with, mallee habitats and may be found together in those habitats. Some threatened birds in the assemblage are only found in mallee, while some species occur in other habitats (not the ecological community) but are more common within mallee vegetation in the Eastern Mallee. The list of birds includes 21 species that are currently recognised as threatened nationally and/or in NSW, SA or Victoria.

It is proposed that the Eastern Mallee Birds can be identified as follows.

FIRST – determine if your site or property lies in the region.

- Distribution is limited to the Eastern Mallee region shown in the map.

SECOND – determine if the right kinds of habitat are present.

- The vegetation at the site must be a native vegetation remnant that has woodland or shrubland in which mallee trees are the most common type of canopy tree present. That means 50% or more of the crown cover of the tree canopy or a majority of trees present are mallee. The understorey should also be mainly native plant species.
- The minimum area of such a native vegetation remnant with mallee that merits national protection is 50 hectares. This is because large areas of intact mallee are more viable for supporting diverse bird populations.
- Birds within areas that have been converted to non-native pastures and crops are not included.

THIRD – determine if most of the birds present are from the ecological community.

- Standard bird survey methods - a 2ha 20minute survey, 500m area search, or equivalent effort - should be used to determine if the bird community is present. Guidance on survey methods is given by Birdlife Australia at: https://birdata.birdlife.org.au/wp-content/uploads/2015/04/Survey-Techniques-Guide.pdf. Bird survey results should consider only terrestrial bird species and disregard any aquatic or marine bird species observed.
- The Eastern Mallee Birds is present if survey results show that:
  - A minimum of ten terrestrial bird species are observed from standard bird surveys, of which 70% or more are from the list of 52 mallee bird species (see Table 1); OR
  - If only five to nine terrestrial birds are consistently observed in total, then 60% or more are from the list of 52 mallee bird species (see Table 1). The ecological community is not present if bird surveys consistently identify only five or fewer terrestrial birds to be present.
  - The bird community is considered to be in sufficiently good condition to merit national protection if at least one of the bird species highlighted in bold in Table 1 is present. These are bird species recognised as threatened or most unique to the Eastern Mallee Bird Community.

The Eastern Mallee Birds likely to be more commonly observed in intact mallee remnants, include: Yellow-plumed Honeyeater, Weebill, Grey Shrike-thrush, Spiny-cheeked Honeyeater, Spotted Pardalote, Grey Butcherbird, Crested Bellbird, White-eared Honeyeater, Striated Pardalote, White-fronted Honeyeater, Jacky Winter, Chestnut-rumped Thornbill, and Inland Thornbill. However, any large mallee remnant where standard bird surveys show these or any other member of the Eastern Mallee Birds to make up most of the birds seen, indicates the ecological community may be present.

Other non-mallee birds may also be observed, including common and widespread species such as the Galah, Australian Magpie or Red Wattlebird, bird species more typical of other nearby non-mallee vegetation, or exotic and pest species such as the Common Starling or Noisy Miners. A large presence of non-mallee bird species, however, indicates that a different native bird community or a degraded mallee bird assemblage is present at a site.

Table 1. Component bird species of the Eastern Mallee Bird Community.

COMMON NAME	SPECIES NAME	FAMILY	FUNCTIONAL GROUP
Australian Owlet-nightjar	*Aegotheles cristatus*	Aegothelidae	Aerial insectivore
Australian Ringneck	*Barnardius zonarius*	Psittacidae	Large nectarivore
Black-eared Cuckoo	*Chalcites osculans*	Cuculidae	Nest parasite
Black-eared Miner	***Manorina melanotis***	**Meliphagidae**	**Small nectarivore**
Brown-headed Honeyeater	*Melithreptus brevirostris*	Meliphagidae	Small nectarivore
Chestnut Quail-thrush	***Cinclosoma castanotum***	**Cinclosomatidae**	**Ground forager**
Chestnut-crowned Babbler	***Pomatostomus ruficeps***	**Pomatostomidae**	**Ground forager**
Chestnut-rumped Thornbill	*Acanthiza uropygialis*	Acanthizidae	Foliage & branch gleaner
Crested Bellbird	***Oreoica gutturalis***	**Oreoicidae**	**Ground forager**
Emu	*Dromaius novaehollandiae*	Dromaiidae	Seed disperser
Gilbert's Whistler	***Pachycephala inornata***	**Pachycephalidae**	**Foliage & branch gleaner**
Golden Whistler	*Pachycephala pectoralis*	Pachycephalidae	Foliage & branch gleaner
Grey Butcherbird	*Cracticus torquatus*	Corvidae	Omnivore
Grey Currawong	*Strepera versicolor*	Corvidae	Omnivore
Grey Shrike-thrush	*Colluricincla harmonica*	Pachycephalidae	Foliage & branch gleaner
Grey-fronted Honeyeater	***Ptilotula plumula***	**Meliphagidae**	**Small nectarivore**
Hooded Robin	***Melanodryas cucullata***	**Petroicidae**	**Pouncer**
Inland Thornbill	*Acanthiza apicalis*	Acanthizidae	Foliage & branch gleaner
Jacky Winter	*Microeca fascinans*	Petroicidae	Pouncer
Little Crow	*Corvus bennetti*	Corvidae	Omnivore
Major Mitchell's Cockatoo	***Cacatua leadbeateri***	**Cacatuidae**	**Omnivore**
Mallee Emu-wren	***Stipiturus mallee***	**Maluridae**	**Lower-stratum insectivore**
Malleefowl	***Leipoa ocellata***	**Megapodiidae**	**Decomposer**
Masked Woodswallow	*Artamus personatus*	Artamidae	Aerial insectivore
Mulga Parrot	*Psephotus varius*	Psittacidae	Large nectarivore
Purple-gaped Honeyeater	***Lichenostomus cratitius***	**Meliphagidae**	**Small nectarivore**
Rainbow Bee-eater	*Merops ornatus*	Meropidae	Aerial Insectivore
Red-capped Robin	*Petroica goodenovii*	Petroicidae	Pouncer
Red-lored Whistler	***Pachycephala rufogularis***	**Pachycephalidae**	**Foliage & branch gleaner**
Regent Parrot	***Polytelis anthopeplus***	**Psittacidae**	**Omnivore**
Restless Flycatcher	***Myiagra inquieta***	**Monarchidae**	**Aerial Insectivore**
Scarlet-chested Parrot	***Neophema splendida***	**Psittacidae**	**Large nectarivore**
Shy Heathwren	***Calamanthus cautus***	**Acanthizidae**	**Foliage & branch gleaner**
Southern Scrub-robin	***Drymodes brunneopygia***	**Petroicidae**	**Pouncer**
Spiny-cheeked Honeyeater	***Acanthagenys rufogularis***	**Meliphagidae**	**Small nectarivore**
Splendid Fairy-wren	*Malurus splendens*	Maluridae	Lower-stratum insectivore
Spotted Nightjar	*Eurostopodus argus*	Eurostopidae	Aerial Insectivore
Spotted Pardalote	*Pardalotus punctatus*	Pardalotidae	Foliage & branch gleaner
Striated Grasswren	***Amytornis striatus***	**Maluridae**	**Lower-stratum insectivore**
Striated Pardalote	*Pardalotus striatus*	Pardalotidae	Foliage & branch gleaner
Striped Honeyeater	***Plectorhyncha lanceolata***	**Meliphagidae**	**Small nectarivore**
Varied Sittella	***Daphoenositta chrysoptera***	**Neosittidae**	**Bark forager**
Variegated Fairy-wren	*Malurus lamberti*	Maluridae	Lower-stratum insectivore
Weebill	*Smicrornis brevirostris*	Acanthizidae	Foliage & branch gleaner
Western Gerygone	***Gerygone fusca***	**Acanthizidae**	**Foliage & branch gleaner**
Western Whipbird	***Psophodes nigrogularis***	**Psophodidae**	**Ground forager**
White-browed Babbler	*Pomatostomus superciliosus*	Pomatostomidae	Ground forager
White-browed Treecreeper	***Climacteris affinis***	**Climacteridae**	**Bark forager**
White-browed Woodswallow	*Artamus superciliosus*	Artamidae	Aerial insectivore
White-eared Honeyeater	***Nesoptilotis leucotis***	**Meliphagidae**	**Small nectarivore**
White-fronted Honeyeater	***Purnella albifrons***	**Meliphagidae**	**Small nectarivore**
Yellow-plumed Honeyeater	***Ptilotula ornata***	**Meliphagidae**	**Small nectarivore**

Species in **bold** are recognised as threatened species nationally and/or in NSW, South Australia or Victoria; or as species most unique to the Eastern Mallee Bird Community.

Why is the Eastern Mallee Bird Ecological Community considered threatened?

The draft Conservation Advice recommends that the Eastern Mallee Birds may be eligible for listing as **Vulnerable to Endangered**. The criteria that make this ecological community eligible for listing as Endangered are:

- a severe loss of important species, especially bird species considered to be threatened or unique to the ecological community; and
- a severe loss of ecological integrity and function, primarily as a consequence of habitat fragmentation, altered fire regimes and impacts of pest animals and plants across the region.

The Eastern Mallee landscape has undergone considerable fragmentation of habitats that has impacted on the abundance and composition of the Eastern Mallee Birds. In regions where mallee remains, about a quarter of areas contain <10% of mallee cover and about 45% retains between 10 to 60% cover. The impacts of pest animals include predation of birds, especially ground-dwelling species, by foxes and cats and local increases in aggressive native birds such as noisy miners. Catastrophic fires have caused local extinctions of mallee birds, such as the loss of Mallee Emu-wrens from key sites in SA after the 2014 fires and is a cause for major concern in light of climate predictions for hotter and drier periods. Although much of the ecological community occurs within conservation reserves, most of these threats to the bird community operate regardless of land tenure. While there may be opportunities for localised recovery, the ecological community is unlikely to be significantly restored across the entire landscape over the near-term, given ongoing declines in several threatened mallee bird species.

How will the Eastern Mallee Bird Ecological Community be protected?

Together with threatened species, threatened ecological communities are protected under the EPBC Act as a matter of national environmental significance. The aim of listing is to prevent further decline and promote and help recovery through landholder and community efforts. Once listed under the EPBC Act, conservation for threatened ecological communities comes down to three main things:

- Better understanding of which biodiversity and associated ecosystems functions and services are we at the greatest risk of losing across the Australian landscape and what are the key research and conservation actions needed to maintain and improve them.
- Increased opportunities for funding and programs of activities that improve or protect threatened ecological communities, particularly allowing for restoration of bushland in and around threatened ecological communities and management of threats to both the environment and production. Regulation of new activities that may significantly impact the threatened ecological community, for example by ensuring that it is considered during environment impact assessments and approvals for major new infrastructure developments in the areas where it is found.

Why is it important to protect this ecological community?

Threatened ecological communities are part of Australia's rich and diverse natural heritage. They represent those elements recognised to be in most serious decline and in need of protection. There are many reasons why it's important to maintain the Eastern Mallee Bird Community and help it to recover. The mallee landscape is unique and iconic to Australia, not just the vegetation but also the fauna, especially the birds. The continued presence of mallee plants and animals enriches Australia's nature and heritage. This special community of mallee birds also provide important contributions to Australia's ecology, society and economy.

- The Eastern Mallee Birds is an assemblage of native bird species strongly associated with mallee habitats in south-eastern Australia. These habitats have become considerably fragmented. with local extinctions of some birds that are part of the community. A large proportion of the bird community (about 24 of the 52 species) are listed as threatened species under national or State environment laws. The nationally threatened species include iconic threatened mallee birds such as the Black-eared Miner, Mallee Emu-wren, Malleefowl, Red-lored Whistler and Western Whipbird. The mallee habitats themselves have been cleared by around 50%. The Eastern Mallee was once the largest area of mallee vegetation in the world and the continued persistence of its habitats, flora and fauna is vital for maintaining Australia's unique and unusual biodiversity.
- The Mallee is valuable heritage for local rural people who live in the region and appreciate these unique landscapes and their unique local birdlife. They are also significant for the Indigenous peoples of the area who lived in and learned to use the resources of the Mallee. Many birdwatchers and bushwalkers get enjoyment from visiting the Mallee and seeing its natural beauty in iconic national parks such as Wyperfeld and Big Desert. For birdwatchers, sites such as Gluepot Reserve and Chowilla Station are havens for birdwatchers because these extensive mallee areas are among the few remaining places where the Eastern Mallee Birds can still be seen in its original state, or close to it.
- The economic values of the Eastern Mallee Birds come from the collective functions of these birds within the landscape. Many members of the bird community are insectivores that have an important role in regulation of insect populations. The helps prevent pest insects from building up, not only in native vegetation, but in nearby crops and gardens. It's one reason why retaining and restoring some nearby native vegetation remnants is important to farmers. Larger remnants support a larger diversity of birds that can provide more ecosystem benefits as natural pest control. Other members of the Eastern Mallee Birds are nectarivores and fruit and seed dispersers that can help with natural regeneration and nutrient cycling from vegetation canopies to the ground layer. Maintaining intact vegetation, soil and litter helps prevent erosion and loss of valuable nutrients, especially important for systems known to have inherently poor nutrition and soil structure.

How will national protection affect farmers, land managers, developers and miners?

How you may be affected if the ecological community is listed depends on:

- whether you have large, good quality native mallee vegetation remnants and the bird community is present on your land; and
- what you intend to do with any such occurrences.

Listing is intended to further support land managers who want to continue managing patches of mallee woodlands that still remain in good quality, for future benefits.

Supportive practices have helped to retain many mallee remnants. For instance, some remnants are intentionally set aside because they serve as shelter for stock and windbreaks for croplands and pastures.

If there are no new actions affecting these large remnants, then the listing won't affect you. Land managers who want to retain good quality mallee or intend to restore any habitats on their properties are more likely to be able to apply for funding to help with environment conservation on their property.

Landholders who have the threatened ecological community on their property may be able to access opportunities to manage threats that impact both the ecological community and agricultural productivity (e.g. invasive plants and pest animals) and restore remnants through current or future Australian Government natural resource management programs, such as National Landcare. Talk with your local NRM agency or Landcare group for more advice on any opportunities.

National protection only applies to new actions likely to cause significant damage to occurrences of this bird community and its habitats that remain in good condition.

Business as usual for many routine activities

Many occurrences of the Eastern Mallee Birds are in conservation reserves where extensive areas of mallee habitats remain and are buffered from surrounding land uses.

The listing of a threatened ecological community under the EPBC Act will not prevent land managers from continuing to use land in the same way they were previously, providing they do not significantly change or intensify their activities.

It is important to note that the EPBC Act only regulates activities that have, or may have, a significant impact on a matter of national environmental significance, including threatened ecological communities. Whether or not an action is likely to have a significant impact depends on the sensitivity, value and quality of the environment which it impacts, and on the intensity, duration, magnitude and geographic extent of the impacts.

The normal activities of individual landholders, residents and councils will typically not be affected by a listing. Routine property maintenance, land management and other established activities, such as most farming activities or ongoing road maintenance, are unlikely to have a significant impact so do not require consideration under the EPBC Act.

For instance, the following actions are unlikely to require approval under the EPBC Act:

- continuation of existing grazing, cropping or horticultural activities
- maintenance of existing roads, fences, access tracks or firebreaks
- maintenance of existing farm gardens or orchards,
- maintenance of existing farm dams or water storages
- maintenance of existing pumps and clearing drainage lines
- replacement and maintenance of sheds, buildings, yards and fences
- control of weeds and management of pest animals on individual properties, roadsides or reserves
- emergency grading, slashing or clearing during a bushfire emergency

In all these activities, landholders are encouraged to avoid any impacts to patches of ecological communities, and to help restore remnants. For example, landholders should try to avoid clearance of native vegetation and habitats that are linked with threatened species and ecological communities, and protect them from nearby activities, such as spray drift from fertiliser, pesticide or herbicide sprayed in adjacent land.

Note that human settlements and infrastructure where an ecological community formerly occurred do not form part of the natural environment and are therefore not considered to be a part of an ecological community. This also applies to sites that have been replaced by crops, gardens or exotic pastures, or where the ecological community occurs in a highly degraded or unnatural state

Referral of actions with significant impacts

The main consideration would be to refer for approval any new activity that could significantly impact upon good quality occurrences of the ecological community. Activities likely to require referral include, but are not restricted to, clearing native vegetation, development on or close to a patch of habitat, fragmentation of formerly continuous habitat into much smaller and isolated remnants, activities that encourage the detrimental activities of feral pests or actions that foster, or implementation of inappropriate fire regimes.

Referrals usually apply to major projects, for instance new mines or mine expansions, major energy projects (windfarms, transmission lines etc), major new road works, new housing and industrial developments, or other proposals to convert large areas of intact mallee vegetation for human land uses. This is likely to be the case for the Eastern Mallee Birds which has a large minimum size for mallee habitats of 100 hectares.

Some agriculture development activities may need approval, but only if you have intact and larger mallee remnants on your property and systematic bird surveys confirm that the Eastern Mallee Birds is present, and you want to develop or clear at least 100 hectares of mallee habitat in such a way that it could significant impact on the bird community.

In some cases, approval may require using alternative ways to carry out the proposed activity to reduce impacts on the ecological community. Before you make any changes to the way you use your land that could result in irreversible or long-term significant loss of the protected ecological community, it is best that you first check to see whether approval is needed.

If you think your action might have a significant impact:

- Check you have very large areas of intact native vegetation with mallee present on your property
- Check what birds are present at the site using systematic surveys and advice from bird experts in your area.
- Plan to avoid or minimise impacts to the best quality patches of remnant mallee and the birds that reside there.
- Talk with the Australian Government Department of Agriculture, Water and the Environment.

Where can I find more information?

The Draft Description and Listing Assessment document and other information about how to make a submission, including questions to guide your responses, are on the website of the Department of Agriculture, Water and the Environment:

www.environment.gov.au/biodiversity/threatened/nominations/comment/

Advice about Australian Government environmental funding programmes (e.g. National Landcare or the Environment Restoration Fund) can be found online at:

http://www.environment.gov.au/about-us/grants-funding

Australian Government natural resource management initiatives are located at:

www.nrm.gov.au

Information about the EPBC Act referral and assessment process is available on:

http://www.environment.gov.au/protection/environment-assessments/assessment-and-approval-process

Further information for farmers on the national environment law and agricultural development is available at:

http://www.environment.gov.au/land/farmers

If you need further information, contact the Department's Community Information Unit by:

- phone on 1800 803 772 (free call); or
- email ciu@environment.gov.au