



---

## Referral of proposed action

---

**Project title:** Proposed Nar Nar Goon Racecourse Development, Victoria

---

### 1 Summary of proposed action

---

#### 1.1 Short description

Pakenham Racing Club proposes to develop a racecourse with associated infrastructure and buildings such as stables, administration buildings, and car-parks on Nar Nar Goon – Longwarry Road, Nar Nar Goon. Although a development plan has not been developed, commercial buildings are proposed, along with residential buildings along the Nar Nar Goon - Longwarry Road.

The proposed racecourse development is likely to lead to the removal of two waterbodies where Growling Grass Frog has recently been recorded (attachment B). In addition, there is potential for farm dams to be isolated from other sites as part of the development, thus potentially limiting the ability of frogs to disperse within and between sites, which may compromise the long-term viability of the local population.

---

#### 1.2

Latitude and longitude	Latitude	Longitude
	-38.083770483605136	145.59983253479004
	-38.08485140639173	145.61777114868164
	-38.096672956067806	145.61777114868164
	-38.098901948321256	145.61553955078125
	-38.09944229984085	145.61262130737305
	-38.10065807615076	145.61150550842285
	-38.10160366596236	145.60790061950684
	-38.103629888638125	145.6047248840332
	-38.09795632354743	145.59974670410156

---

---

1.3 **Locality**

The study area is approximately 230 hectares in area and is located in Nar Nar Goon approximately 60 kilometres south-east of Melbourne. It is bounded by Nar Nar Goon – Longwarry Road to the north, Chippendale Road and Ararat Creek to the west, and private farm properties to the east and south (divided by an open drain and water mains which run alongside it).

The study area has historically been used for agricultural purposes, including grazing for livestock and cropping. It continues to be used for these purposes, and currently contains ten artificial waterbodies (i.e. farm dams). The total area of these waterbodies is approximately 0.47 ha.

A locality plan is provided at attachment A.

---

1.4 **Size of the development footprint or work area (hectares)**      Approximately 230 hectares.

---

1.5 **Street address of the site**      Nar Nar Goon – Longwarry Road, Nar Nar Goon, Victoria, 3812.

---

1.6 **Lot description**

---

1.7 **Local Government Area and Council contact (if known)**

Local Council: Cardinia Shire Council

---

1.8 **Timeframe**

Construction works are scheduled to commence first-quarter 2011, with completion second-half of 2011. Installation of the Growling Grass Frog habitat will be completed prior to commencement of construction.

1.9	<b>Alternatives</b>	<b>X</b>	No
			Yes, you must also complete section 2.2
1.10	<b>State assessment</b>	<b>X</b>	No
			Yes, you must also complete Section 2.4
1.11	<b>Component of larger action</b>	<b>X</b>	No
			Yes, you must also complete Section 2.6

1.12	<b>Related actions/proposals</b>	<b>X</b>	No
			Yes, provide details:
1.13	<b>Australian Government funding</b>	<b>X</b>	No
			Yes, provide details:

## 2 Detailed description of proposed action

### 2.1 Description of proposed action

Pakenham Racing Club proposes to develop a racecourse with associated infrastructure and buildings such as stables, administration buildings, and car-parks on the study area. Although a development plan has not been developed, commercial buildings are proposed, along with residential buildings along the Nar Nar Goon - Longwarry Road.

The study area contains ten artificial waterbodies (i.e. farm dams), and these sites provide variable quality habitat for Growling Grass Frog. Most are dominated by exotic flora, and dry out during summers (Biosis Research 2008), although three farm dams present in the north-eastern portion of the study area are in 'good condition' and support a high percentage cover of fringing, emergent and submerged vegetation. During the recent surveys a total of three male Growling Grass Frogs were detected within two of these farm dams (Biosis Research 2008). It is possible that Growling Grass Frog would use other waterbodies (i.e. sites containing suitable habitat features for the species) within the study area as limited survey effort was undertaken during the recent surveys by Biosis Research (2008). In addition, the study area contains other biodiversity values, although the focus of the report is to provide detailed conservation management actions/measures to ensure that populations of Growling Grass Frog persist on within the study area in the future.

The proposed racecourse development is likely to lead to the removal of two waterbodies where Growling Grass Frog has recently been recorded. In addition, there is potential for farm dams to be isolated from other sites as part of the development, thus potentially limiting the ability of frogs to disperse within and between sites, which may comprise the long-term viability of the local population.

Pakenham Racing Club is proposing to install a series of ponds in the south-western corner of the study area to provide alternate habitat for Growling Grass Frog. This will provide higher quality habitat to the species in the long term in accordance with a

Conservation Management Plan (attached to this Referral). This is expected to create a more secure and viable population into the future.

#### **2.2 Alternative locations, time frames or activities that form part of the referred action**

None considered

#### **2.3 Context, planning framework and state/local government requirements**

Growling Grass Frogs are currently listed under the FFG Act 1988 and listed as endangered under DSEs Advisory List of Threatened Fauna in Victoria (DSE 2007). Two males were recorded in the northern dams located in study area (Attachment A). However owing to the fact that the study area is privately owned a permit under the FFG Act 1988 relating to Growling Grass Frog is not required.

#### **2.4 Environmental impact assessments under Commonwealth, state or territory legislation**

The Growling Grass Frog is a nationally-listed species under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), and is likely to include individuals from the northern-most part of a meta-population within Nar Nar Goon.

#### **2.5 Consultation with Indigenous stakeholders**

The Club engaged Urban Colors Arts Pty Ltd to prepare a Cultural Heritage Mgmt Plan for the proposed works. The Bunurong Land Council and the Wurundjeri Tribe Land & Compensation Cultural Heritage Land Council Inc were part of the extensive investigations into a 25 day Archeological Sub Surface testing carried out at the property. The CHMP will be submitted to Aboriginal Affairs Victoria for approval.

#### **2.6 A staged development or component of a larger project**

The development is not part of a larger project.

## **3 Description of environment & likely impacts**

### **3.1 Matters of national environmental significance**

### **3.1 (a) World Heritage Properties**

Not applicable.

---

### **3.1 (b) National Heritage Places**

Not applicable.

---

### **3.1 (c) Wetlands of International Importance (declared Ramsar wetlands)**

Not applicable.

---

### **3.1 (d) Listed threatened species and ecological communities**

#### *Threatened Flora Species*

No EPBC Act listed or other threatened flora species were recorded within the study area during the recent assessments (Biosis Research 2008 and Ecology Partners 2010). It is concluded none are likely to occur within the study area (Table 1).

#### *EPBC Act-listed ecological communities*

No ecological communities listed under the EPBC Act were identified within the study area.

#### *Threatened Fauna Species*

Three Growling Grass frogs were recorded within the study area during surveys undertaken during optimal weather conditions on 10 October 2008. A species description for the Growling Grass Frog is provided below.

There is no important habitat for any other nationally significant species within the study area, as outlined in Table 2.

#### *Growling Grass Frog*

The Growling Grass Frog is commonly known by several other names; Warty Bell Frog, Southern Bell Frog, Warty Swamp Frog and Green and Golden Frog. Although formally widely distributed across southern eastern Australia, including Tasmania (Littlejohn 1963; 1982; Hero *et al.* 1991), the species has declined markedly across much of its former range. This has been most evident over the past two decades and in many areas, particularly in

south and central Victoria, populations have experienced apparent declines (including within the study area) and local extinctions (Mahoney 1999).

Growling Grass Frogs are largely associated with permanent or semi-permanent still or slow flowing waterbodies (i.e. streams, lagoons, farm dams and old quarry sites) (Hero *et al.* 1991; Barker *et al.* 1995; Cogger 1996; Ashworth 1998). The frogs can also utilise temporarily inundated waterbodies for breeding purposes providing they contain water over the breeding season (Organ 2003). The species is typically associated with waterbodies supporting extensive cover of emergent, submerged and floating vegetation (Robertson *et al.* 2002; Organ 2004; 2005a). Emergent vegetation provides basking sites for frogs and protection from predators, while floating vegetation provides suitable calling stages for adult males, and breeding and oviposition (egg deposition) sites. Terrestrial vegetation (grasses, sedges), rocks and other ground debris around wetland perimeters also provide foraging, dispersal and over-wintering sites for frogs.

Causes of the decline of Growling Grass Frog are not fully understood. However, factors that are likely to have contributed to the decline include habitat loss, fragmentation and degradation (such as land clearing for agriculture and urban development), altered flooding regimes of natural waterbodies, predation on eggs and tadpoles by introduced fish, salinisation, chemical pollution of waterbodies by fertilisers and pesticides, and infection by the amphibian chytrid fungus (White and Pyke 1996; Hamer *et al.* 2002). Some of these factors are presently acting on the metapopulations in the Pakenham area, although habitat loss and modification represent the greatest threat to the extant population within the study area.

Many of the waterbodies within study area provide marginal habitat for the species. That is, seven of the 10 farm dams are of poor quality to Growling Grass Frog as they lack the preferred habitat characteristics (as described above). Three of the farm dams were observed to provide good quality habitat for the species and support a high percentage cover of emergent and submerged vegetation (Biosis Research 2008). A drainage line which bisects the study area in a north-south direction, albeit dominated by exotic vegetation, may provide a dispersal corridor for individuals moving between sites.

**Table 1.** Significant flora recorded within 10 kilometres of the study area.

Sources used to determine species status:

EPBC Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)

DSE Advisory List of Threatened Flora in Victoria (DSE 2005)

FFG Flora and Fauna Guarantee Act 1988 (Victoria)

National status of species is designated by:

X Extinct

CR Critically endangered

EN Endangered

VU Vulnerable

K Poorly Known (Briggs and Leigh 1996)

# Records identified from EPBC Act Protected Matters Search Tool.

\* Native non-indigenous species

State status of species is designated by:

x Extinct

e Endangered

v Vulnerable

r Rare

k Poorly Known

L Listed

Likelihood of occurrence:

1 known occurrence

2 habitat present

3 habitat present, but low likelihood

4 unlikely

5 no suitable habitat

Scientific Name	Common Name	Total number of documented records (FIS)	EPBC	VROTS	FFG	Likely occurrence within the study area
<b>NATIONAL SIGNIFICANCE</b>						
# <i>Amphibromus fluitans</i>	River Swamp Wallaby-grass	-	VU	-	-	4
# <i>Dianella amoena</i>	Matted Flax-lily	1	EN	e	L	5
# <i>Prasophyllum frenchii</i>	Maroon Leek-orchid	-	EN	e	L	5
# <i>Xerochrysum palustre</i>	Swamp Everlasting	-	VU	v	L	5

Scientific Name	Common Name	Total number of documented records (FIS)	EPBC	VROTS	FFG	Likely occurrence within the study area
<b>STATE SIGNIFICANCE</b>						
<i>Adiantum diaphanum</i>	Filmy Maidenhair	1	-	e	L	5
<i>Bossiaea riparia</i>	River Leafless Bossiaea	1	-	r	-	4
<i>Caladenia flavovirens</i>	Summer Spider-orchid	1	-	r	-	5
<i>Lastreopsis hispida</i>	Bristly Shield-fern	1	-	r	-	5
<i>Lepidosperma canescens</i>	Hoary Rapier-sedge	4	-	r	-	4
<i>Pultenaea weindorferi</i>	Swamp Bush-pea	4	-	r	-	5
<i>Tetraloche stenocarpa</i>	Long Pink-bells	1	-	r	-	5
<i>Tmesipteris parva</i>	Small Fork-fern	1	-	r	-	5
<i>Desmodium varians</i>	Slender Tick-trefoil	2	-	k	-	5
<i>Austrostipa rudis subsp. australis</i>	Veined Spear-grass	1	-	r	-	4
<i>Thelymitra longiloba</i>	Marsh Sun-orchid	2	-	e	-	5
<i>Eucalyptus fulgens</i>	Green Scentbark	15	-	r	-	3
<i>Geranium solanderi var. solanderi s.s.</i>	Austral Crane's-bill	1	-	v	-	4
<i>Correa reflexa var. lobata</i>	Powelltown Correa	2	-	r	-	4

**Source:** DSE Flora Information System (FIS 2007); DEWHA Protected Matters Search Tool (<http://www.environment.gov.au/erin/ert/epbc/index.html>)

**Table 2.** Significant fauna recorded within 10 kilometres of the study area.

Sources used to determine species status:

EPBC *Environment Protection and biodiversity Conservation Act 1999* (Commonwealth)

DSE *Advisory List of Threatened Vertebrate Fauna in Victoria* (DSE 2007)

FFG *Flora and Fauna Guarantee Act 1988* (Victoria)

Species status:

EX Extinct

RX Regionally extinct

CR Critically endangered

EN Endangered

VU Vulnerable

RA Rare

NT Near threatened

CD Conservation dependent

LR Lower risk (least concern)

DD Data deficient (insufficiently or poorly known)

L Listed as threatened under FFG Act

# Protected Matters Search Tool (DEWHA)

Use of the study area:

1 Known resident

2 Possible resident

3 Frequent visitor

4 Occasional visitor

5 Rare visitor

6 Vagrant visitor

7 Unlikely/no suitable habitat

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
<b>NATIONAL SIGNIFICANCE</b>								
# Southern Brown Bandicoot	<i>Isoodon obesulus obesulus</i>	1991	14	EN	NT	-	NT	6
Leadbeater's Possum	<i>Gymnobelideus leadbeateri</i>	1915	1	EN	EN	L	EN	7
# Growling Grass Frog	<i>Litoria raniformis</i>	2006	21	VU	EN	L	VU	2
# Australian Grayling	<i>Prototroctes maraena</i>	1998	4	VU	VU	L	VU	7
# Dwarf Galaxias	<i>Galaxiella pusilla</i>	1997	11	VU	VU	L	VU	7
# Australian Painted Snipe	<i>Rostratula australis</i>	-	-	VU	CR	L	VU	6

Common Name	Scientific Name	Last documented record	Total # of records	EPBC Act	DSE (2007)	FFG ACT	National Action Plan	Likely use of study area
# Golden Sun Moth	<i>Synemon plana</i>	-	-	CR	EN	L	-	7
# Grey-headed Flying-fox	<i>Pteropus poliocephalus</i>	-	-	VU	VU	L	VU	4
# Long-nosed Potoroo	<i>Potorous tridactylus</i>	-	-	VU	EN	L	VU	6
# Regent Honeyeater	<i>Anthochaera phrygia</i>	-	-	EN	CR	L	EN	7
# Smoky Mouse	<i>Pseudomys fumeus</i>	-	-	EN	CR	L	RA	6
# Spot-tailed Quoll	<i>Dasyurus maculatus</i>	-	-	EN	EN	L	VU	6
# Swift Parrot	<i>Lathamus discolor</i>	-	-	EN	EN	L	EN	6
<b>STATE SIGNIFICANCE</b>								
Royal Spoonbill	<i>Platalea regia</i>	2000	2	-	VU	-	-	4
Little Egret	<i>Egretta garzetta</i>	1998	1	-	EN	L	-	4
Eastern Great Egret	<i>Ardea modesta</i>	2000	2	-	VU	L	-	4
Australasian Shoveler	<i>Anas rhynchotis</i>	1990	1	-	VU	-	-	4
Musk Duck	<i>Biziura lobata</i>	1991	1	-	VU	-	-	5
Barking Owl	<i>Ninox connivens</i>	1988	1	-	EN	L	NT	6
Powerful Owl	<i>Ninox strenua</i>	2004	18	-	VU	L	-	5
Masked Owl	<i>Tyto novaehollandiae</i>	1993	2	-	EN	L	NT	6
Sooty Owl	<i>Tyto tenebricosa</i>	1993	7	-	VU	L	-	6
White-footed Dunnart	<i>Sminthopsis leucopus</i>	1990	1	-	NT	L	DD	5
Lace Goanna	<i>Varanus varius</i>	1993	3	-	VU	-	-	6
Southern Toadlet	<i>Pseudophryne semimarmorata</i>	1993	83	-	VU	-	-	4
<b>REGIONAL SIGNIFICANCE</b>								
Brown Quail	<i>Coturnix ypsilophora</i>	2001	5	-	NT	-	-	4
Pied Cormorant	<i>Phalacrocorax varius</i>	1993	1	-	NT	-	-	4
Latham's Snipe	<i>Gallinago hardwickii</i>	1993	1	-	NT	-	-	3
Nankeen Night Heron	<i>Nycticorax caledonicus</i>	1992	1	-	NT	-	-	3
Azure Kingfisher	<i>Alcedo azurea</i>	2001	3	-	NT	-	-	6
Spotted Quail-thrush	<i>Cinlosoma punctatum</i>	1993	2	-	NT	-	-	7
Eastern Pygmy-possum	<i>Cercartetus nanus</i>	1994	1	-	NT	-	-	6
Broad-toothed Rat	<i>Mastacomys fuscus</i>	1993	2	-	NT	-	-	5

Source: DSE Atlas of Victorian Wildlife (AVW 2007); DEWHA Protected Matters Search Tool (<http://www.environment.gov.au/erin/ert/epbc/index.html>)

### 3.1 (e) Listed migratory species

#### Description

Thirteen migratory bird species (six terrestrial, four wetland, three marine) were identified by the Protected Matters Search Tool (DEWHA 2008) (Table 3). However, none of these species were identified within the study area, or are predicted to regularly occur within the study area (Biosis Research 2008).

**Table 3. Habitat for migratory fauna within the study area.**

Migratory Species		
<b>MIGRATORY TERRESTRIAL BIRDS</b>		
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	No important habitat within the study area.
White-throated Needletail	<i>Hirundapus caudacutus</i>	No important habitat within the study area.
Rainbow Bee-eater	<i>Merops ornatus</i>	No suitable habitat within the study area.
Satin Flycatcher	<i>Myiagra cyanoleuca</i>	No suitable habitat within the study area.
Rufous Fantail	<i>Rhipidura rufifrons</i>	No suitable habitat within the study area.
Regent Honeyeater	<i>Xanthomyza phrygia</i>	No suitable habitat within the study area.
Black-faced Monarch	<i>Monarcha melanopsis</i>	No suitable habitat within the study area.
Australian Reed Warbler	<i>Acrocephalus stentoreus</i>	No important habitat within the study area.
<b>MIGRATORY WETLAND BIRDS</b>		
Eastern Great Egret	<i>Ardea modesta</i>	No important habitat within the study area.
Cattle Egret	<i>Ardea ibis</i>	No important habitat within the study area.
Latham's Snipe	<i>Gallinago hardwickii</i>	No important habitat within the study area.
Australian Painted Snipe	<i>Rostratula benghalensis</i>	No important habitat within the study area.
<b>MIGRATORY MARINE BIRDS</b>		
Fork-tailed Swift	<i>Apus pacificus</i>	No suitable habitat within the study area.
Eastern Great Egret	<i>Ardea modesta</i>	No important habitat within the study area.
Cattle Egret	<i>Ardea ibis</i>	No important habitat within the study area.

Source: DEWHA Protected Matters Search Tool (<http://www.environment.gov.au/erin/ert/epbc/index.html>)

---

### 3.1 (f) Commonwealth marine area

Not applicable.

### 3.1 (g) Commonwealth land

Not applicable.

---

### 3.2 Nuclear actions, actions taken by the Commonwealth (or Commonwealth agency), actions taken in a Commonwealth marine area, or actions taken on Commonwealth land

3.2 (a)	Is the proposed action a nuclear action?	<b>X</b>	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (b)	Is the proposed action to be taken by the Commonwealth or a Commonwealth agency?	<b>X</b>	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment

3.2 (c)	Is the proposed action to be taken in a Commonwealth marine area?	<b>X</b>	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(f))

3.2 (d)	Is the proposed action to be taken on Commonwealth land?	<b>X</b>	No
			Yes (provide details below)

If yes, nature & extent of likely impact on the whole environment (in addition to 3.1(g))

### 3.3 Other important features of the environment

#### 3.3 (a) Soil and vegetation characteristics

There are no important soil and vegetation characteristics within the study area.

#### 3.3 (b) Water flows, including rivers, creeks and impoundments

There are no drainage lines within the study area.

#### 3.3 (c) Outstanding natural features, including caves

There are no outstanding natural features, including caves, are known to occur in the study area.

#### 3.3 (d) Gradient (or depth range if action to be taken in a marine area)

Not applicable.

### **3.3 (e) Buildings or other infrastructure**

There are no important buildings or other infrastructure within the study area.

### **3.3 (f) Marine areas**

Not applicable.

### **3.3 (g) Kinds of fauna and flora**

A total of 90 vascular plant species (39 native and 51 exotic) were identified during the recent survey (Biosis Research 2008). No nationally significant flora species were identified during the field assessment. A further four nationally significant and 14 state significant species have previously been recorded, or are likely to occur, within 10 kilometres of the study area, however none of these species are likely to occur on the study area (Table 1).

Thirty-eight terrestrial fauna species comprising three mammals, one lizard, five frogs and 29 birds (15 native, five introduced) were recorded during the recent field assessments (Biosis Research 2008). All of these are common to the local area, with the exception of the Growling Grass Frog records. A further 12 nationally significant, 12 state significant and eight regionally significant species have previously been recorded, or are likely to occur, within 10 kilometres of the study area, however none of these species are likely to rely on significant habitat within study area (Table 2).

### **3.3 (h) Current state of the environment in the area**

- The current state of the environment in relation to the location of the study area is included below.
- Flora and fauna – See 3.1 (g) above
- Vegetation within the vicinity of the Project area – The majority of the vegetation within the vicinity of the Project area comprises paddocks dominated by a mixture of introduced pasture species and indigenous grassland species. Isolated remnant trees are distributed sparsely across the area. Planted vegetation has been landscaped throughout areas for low density residential use.
- Weeds – The majority of the adjacent area is grazing pasture. The distribution of weeds across the area is varied. Several exotic pasture species dominated the grazed properties, such as Sweet Vernal-grass *Anthoxanthum odoratum*, Cocksfoot

*Dactylis glomerata*, Toowoomba Canary-grass *Phalaris aquatica* occur on freehold land within the surrounding area.

- Feral animals –Foxes *Vulpes vulpes* and populations of several introduced birds are present within the area.
- Watercourses – Ararat Creek runs along the south-western corner of the study area. The vegetation lining this water course provides habitat of locally high significance (Biosis Research 2008).

### **3.3 (i) Other important or unique values of the environment**

No areas of ecological significance occur within the study area.

### **3.3 (j) Tenure of the action area (eg freehold, leasehold)**

Freehold land

### **3.3 (k) Existing land/marine uses of area**

Not applicable.

### **3.3 (l) Any proposed land/marine uses of area**

Not applicable.

## **4 Measures to avoid or reduce impacts**

### **Growling Grass Frog Conservation Management Plan (CMP; Ecology Partners 2009)**

The purpose of the Growling Grass Frog CMP is to provide measures to minimise impacts to local populations prior to, and during construction. The plan also provides information on habitat creation and management requirements, to ensure that the populations within the study area persist in the future.

Principally, this will be done through establishment, and management of preferred habitat as a series of wetlands in the south-western corner of the study area. Waterbodies will be established as soon as practicable, and it is hoped that Growling Grass Frog will colonise these wetlands shortly after establishment. In the event that Growling Grass Frog does not naturally colonise these sites, assisted translocation by a qualified ecologist/zoologist will be undertaken.

Three additional plans will be required to provide preferred habitat in the long term. These include:

- A Revegetation Plan within the proposed wetlands and their surrounds (it is possible that vegetation offsets required for the loss of vegetation elsewhere within the study area may be undertaken in the vicinity of the proposed wetlands);
- A Weed Management Plan which is to be prepared and implemented concurrently with the Revegetation Plan to manage weeds within the study area; and,
- An Erosion and Sediment Control Plan designed to maintain water quality within created wetlands.

Ongoing monitoring of populations and associated habitats, and reporting for a minimum period of three years is recommended. This report is subject to regulatory approval, and is likely to require approval through a Priority Development Panel process, ultimately signed off by representatives of the State Minister. This process has commenced and the outcome of the Panel are pending.

## 5 Conclusion on the likelihood of significant impacts

### 5.1 Do you THINK your proposed action is a controlled action?

- No, complete section 5.2  
 Yes, complete section 5.3

### 5.2 Proposed action IS NOT a controlled action.

The proposed development will impact a small number of EPBC Act listed Growling Grass Frogs through the removal of ten dams on the site with an area of 0.49 hectares. Three male frogs were recorded in 2008 in two dams in the northern part of the study area, however no females were located and the habitat. Three farm dams have marginal quality habitat for this species while others are dry and devoid of important aquatic and emergent vegetation, so have little value. Therefore it is likely that the frogs that were recorded had dispersed from other breeding areas in which the habitat is more suitable.

Despite this, the proponent has implemented a CMP for the frog that will result in new habitat being created. These proposed ponds will be installed solely for Growling Grass Frog habitat. These, along with other waterbodies used to treat stormwater, cover a far greater area of habitat, and the quality will be significantly improved. Further, this new habitat will be closer to Ararat Creek, in the southern part of the study area, which has the potential to act as a dispersal corridor, improving the connectivity between the frogs on the study area and those in other populations to the south and east.

Furthermore, the staging of the development will enable frogs to move to the new wetland of their own accord, once the newly constructed wetlands take on the habitat values that make them suitable Growling Grass Frog habitat. Any frogs that do not move of their own volition will be salvaged prior to excavation works to ensure that no frogs displaced or injured by the development.

For the reasons outlined the proposed action will not result in a significant impact to any of these matters of National Environmental Significance.

### 5.3 Proposed action IS a controlled action

#### Matters likely to be impacted

<input type="checkbox"/>	sections 12 and 15A (World Heritage)
<input type="checkbox"/>	sections 15B and 15C (National Heritage places)
<input type="checkbox"/>	sections 16 and 17B (Wetlands of international importance)
<input type="checkbox"/>	sections 18 and 18A (Listed threatened species and communities)
<input type="checkbox"/>	sections 20 and 20A (Listed migratory species)
<input type="checkbox"/>	sections 21 and 22A (Protection of the environment from nuclear actions)
<input type="checkbox"/>	sections 23 and 24A (Commonwealth marine environment)
<input type="checkbox"/>	sections 26 and 27A (Protection of the environment from actions involving Commonwealth land)
<input type="checkbox"/>	section 28 (Protection of the environment from Commonwealth actions)
<input type="checkbox"/>	Sections 27B and 27C (Commonwealth Heritage places outside the Australian Jurisdiction)

## 6 Environmental history of the responsible party

		Yes	No
<b>6.1</b>	<b>Does the party taking the action have a satisfactory record of responsible environmental management?</b>  The Pakenham racing Club has not previously been involved in environmental management	<b>X</b>	
<b>6.2</b>	<b>Has the party taking the action ever been subject to any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources?</b>		<b>X</b>
<b>6.3</b>	<b>If the party taking the action is a corporation, will the action be taken in accordance with the corporation's environmental policy and planning framework?</b>		<b>X</b>
<b>6.4</b>	<b>Has the person proposing to take the action previously referred an action under the EPBC Act?</b>		<b>X</b>

## 7 Information sources and attachments

(For the information provided above)

### 7.1 References

- Ashworth, J.M. 1998. An Appraisal of the Conservation of *Litoria raniformis* (Kefferstein) in Tasmania. University of Tasmania March 1998. Unpublished Master's thesis.
- AVW 2007. Atlas of Victorian Wildlife, Department of Sustainability and Environment.
- Barker, J., Grigg, G.C. & Tyler, M.J. 1995. A Field Guide to Australian Frogs. Surrey Beatty & Sons. New South Wales.
- Biosis Research 2008. Flora and Terrestrial Fauna Assessment of the Proposed Pakenham Racecourse, Nar Nar Goon, Victoria. Unpublished report prepared for the Pakenham Racing Club.
- Cogger, H. 1996. Reptiles and Amphibians of Australia. Reed Books, Sydney.
- DSE 2007. Advisory List of Threatened Vertebrate Fauna in Victoria - 2007 Department of Sustainability & Environment, Victoria.
- DSE 2009. Biodiversity Interactive Map [online]. Available UR: [www.dse.vic.gov.au](http://www.dse.vic.gov.au). Department of Sustainability & Environment, Victoria.
- Ecology Partners Pty. Ltd. 2009. Conservation Management Plan for the Growling grass Frog *Litoria raniformis* at the Proposed Nar Nar Goon Racecourse. Unpublished report prepared for the Pakenham Racing Club.
- Hamer, A.J., Lane, S.J. & Mahony, M. 2002. Management of freshwater wetlands for the endangered green and golden bell frog *Litoria aurea*: roles of habitat determinants and space. *Biological Conservation* 106, 413–424.
- Hero, J.M., Littlejohn, M. & Marantelli, G. 1991. Frogwatch Field Guide to Victorian Frogs. Department of Conservation and Environment, East Melbourne.
- Littlejohn, M.J. 1963. Frogs of the Melbourne area. *Victorian Naturalist*. 79:296-304.
- Littlejohn, M.J. 1982. Amphibians of Victoria. *Victorian Yearbook*. 85:1–11.
- Mahoney, M. 1999. Review of the declines and disappearances within the bell frog species group (*Litoria aurea* species group) in Australia. In: *Declines and Disappearances of Australian Frogs*. The University of Newcastle, Newcastle, NSW.

- Organ, A. 2003. Growling Grass Frog *Litoria raniformis* monitoring over the 2002/03 breeding period, Western Treatment Plant, Werribee, Victoria. Biosis Research Pty. Ltd. unpublished report for Melbourne Water Corporation.
- Organ, A. 2004. Pakenham Bypass: Growling Grass Frog *Litoria raniformis* 2003/04 survey, Pakenham and surrounds Victoria. Biosis Research Pty. Ltd. unpublished report for VicRoads.
- Organ, A. 2005. Pakenham Bypass: Conservation Management Plan for the Growling Grass Frog *Litoria raniformis*, Pakenham, Victoria. Biosis Research Pty. Ltd. unpublished for VicRoads.
- Robertson, P., Heard, G. and Scroggie, M. 2002. The Ecology and Conservation Status of the Growling Grass Frog *Litoria raniformis* within the Merri Creek Corridor. Interim Report: Distribution, Abundance and Habitat Requirements. Report produced for the Department of Natural Resources and Environment.
- White A. W. & Pyke G.H. 1996. Distribution and conservation status of the green and golden bell frog *Litoria aurea* in New South Wales. Australian Zoologist 30(2): 177–189.

## **7.2 Reliability and date of information**

Field assessments involved walking the study area, recording flora and fauna species and general characteristics of the area such as geology, landscape features and cover of flora species and fauna habitat.

All personnel involved in the ecological surveys as part of the proposed development have extensive experience in undertaking ecological assessments throughout south-eastern Australia and extensive experience in biodiversity legislation.

There is a high level of confidence through the various assessment approaches employed - field observation, targeted surveys, consultation, expert knowledge and searches of flora and fauna databases - that a correct representation of the conditions and potential impacts is contained herein.

### 7.3 Attachments

		✓ attached	Title of attachment(s)
<b>You must attach</b>	figures, maps or aerial photographs showing the project locality (section 1)	Yes	See below (A)
	figures, maps or aerial photographs showing the location of the project in respect to any matters of national environmental significance or important features of the environments (section 3)	Yes	See below (B)
<b>If relevant, attach</b>	copies of any state or local government approvals and consent conditions (section 2.3)		
	copies of any completed assessments to meet state or local government approvals and outcomes of public consultations, if available (section 2.4)		
	copies of any flora and fauna investigations and surveys (section 3)	Yes	See below (C and D)
	technical reports relevant to the assessment of impacts on protected matters and that support the arguments and conclusions in the referral (section 3 and 4)	Yes	See below (E)
	report(s) on any public consultations undertaken, including with Indigenous stakeholders (section 3)		

#### Attachments to this referral

- A Location of the study area
- B Growling Grass Frog records within the study area and areas for proposed mitigation measures
- C Flora and Terrestrial Fauna Assessment of the Proposed Pakenham Racecourse, Nar Nar Goon, Victoria. Biosis Research. 2008
- D Flora and Net Gain Assessment for the Proposed Racecourse Development at Nar Nar Goon, Victoria. Ecology Partners 2010.
- E Conservation Management Plan for the Growling Grass Frog *Litoria raniformis* at the Proposed Nar Nar Goon Racecourse. Ecology Partners Pty Ltd. 2009

## 8 Contacts, signatures and declarations

NOTE: Providing false or misleading information is an offence punishable on conviction by imprisonment and fine (s 489, EPBC Act).

Under the EPBC Act a referral can only be made by:

- the person proposing to take the action; or
- a Commonwealth, state or territory government, or agency that is aware of a proposal by a person to take an action, and that has administrative responsibilities relating to the action<sup>1</sup>.

### **Project title: Nar Nar Goon Racecourse Development, Victoria**

#### 8.1 Person proposing to take action

This is the individual, government agency or company that will be principally responsible for, or who will carry out, the proposed action.


If the proposed action will be taken under a contract or other arrangement, this is:

- the person for whose benefit the action will be taken; or
- the person who procured the contract or other arrangement and who will have principal control and responsibility for the taking of the proposed action.

The Minister may also request additional information from this person, for the purposes of deciding whether the action is a controlled action, the controlling provisions that apply, and for the making of an approval decision (if applicable).

If approval for the action is required and is granted, it will be issued to the person proposing to take the action. This person will be responsible for complying with any conditions of approval.

If the Minister decides that the action is a controlled action, the Minister must also designate a person as a proponent of the action. The proponent is responsible for meeting the requirements of the EPBC Act during the assessment process. The proponent will generally be the person proposing to take the action<sup>2</sup>.

Name	Client to complete	<b>Michael Hodge</b>
Title		<b>Chief Executive</b>
Organisation		<b>Pakenham Racing Club Inc</b>
ACN / ABN (if applicable)	64 884 966 013.	
Postal address	P O Box 141 Pakenham Vic 3820	
Telephone	5941 1207	
Email	M.hodge @ pakenham.countrysiding.com.au	
Declaration	I declare that the information contained in this form is, to my knowledge, true and not misleading. I agree to be nominated as the proponent for this action.	
Signature		Date 7.6.10.

**8.2 Person preparing the referral information (if different from 8.1)**

Name Simon Scott  
Title Senior Ecologist  
Organisation Ecology Partners ABN 65 685 233 760  
Postal address PO Box 298, Brunswick, Vic, 3056  
Telephone 03 9940 1411  
Email sscott@ecologypartners.com.au

Declaration I declare that the information contained in this form is, to my knowledge, true and not misleading.

Signature  Date 8 JUNE 2010

If the referring party is a small business (fewer than 20 employees), estimate the time taken, in hours and minutes, to complete this form (include your time reading the instructions, working on the questions and obtaining the information and time spent by all employees in collecting and providing this information).

Hours	Minutes

# REFERRAL CHECKLIST

## HAVE YOU:

- ✓ Completed all required sections of the referral form?
- ✓ Included accurate coordinates (to allow the location of the proposed action to be mapped)?
- ✓ Provided a map showing the location and approximate boundaries of the project area?
- ✓ Provided a map/plan showing the location of the action in relation to any matters of NES?
- ✓ Provided complete contact details and signed the form?
- ✓ Provided copies of any documents referenced in the referral form?
- ✓ Ensured that all attachments are less than two megabytes (2mb)?
- ✓ Sent the referral to the Department (electronic and hard copy preferred)?

# **Attachment A – Location of the Study Area**

**Attachment B – Growling Grass Frog records  
within the study area, and areas for proposed  
mitigation measures**

# **Attachment C – Flora and Terrestrial Fauna Assessment of the Proposed Pakenham Racecourse, Nar Nar Goon, Victoria**

**Attachment D - Flora and Net Gain Assessment  
for the Proposed Racecourse Development at Nar  
Nar Goon, Victoria. Ecology Partners 2010.**

**Attachment E – Conservation Management Plan  
for the Growling Grass Frog *Litoria raniformis* at  
the Proposed Nar Nar Goon Racecourse.**