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EPBC Act Preliminary Documentation

Nar Nar Goon Racecourse, Victoria

(EPBC 2010/5530)

Nar Nar Goon Racecourse, Victoria (EPBC Act 2010/5530)

This document is in response to the letter received from the Department of the Environment, Water, Heritage and the Arts (DEWHA) dated 22 July 2010. The letter requests additional information in relation to potential impacts on Matters of National Environmental Significance (NES) associated with the proposed development Nar Nar Goon Racecourse, near Pakenham, Victoria.

Background

Ecology Partners Pty Ltd, on behalf of the Pakenham Racing Club, has undertaken detailed assessments of matters of NES which occur, or may occur within the study area and are likely to be impacted by the development of the study area. On the basis of these assessments, it was determined that one matter of NES may be impacted by the proposed development.

The Growling Grass Frog (GGF) *Litoria raniformis* is listed as Vulnerable under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Two male Growling Grass Frogs were recorded within the two dams within the study area and the proposed racecourse development will lead to the removal of these dams. However, the proposed development will offset the impacts associated with the loss of this habitat, through the creation and future management of wetlands specifically designed and constructed for Growling Grass Frog. The intention is for these wetlands to provide long-term breeding habitat for the species on-site, thus contributing to the future viability of the species within the study area and beyond.

An EPBC Act referral was made to DEWHA on 10 June 2010 (EPBC referral 2010/5530) on behalf of the Pakenham Race Club on the basis that the proposed development was not a 'controlled action'. However, on 9 July 2010, DEWHA advised that the proposed action was a 'controlled action', and requires approval by the Minister for DEWHA before it can proceed. This decision was reached on the basis that the proposed action may impact on 'listed threatened species and communities (Sections 18 and 18A of the EPBC Act)'. DEWHA determined that this proposal will be assessed by 'preliminary documentation' under the EPBC Act.

There are three matters of NES that DEWHA considers may be impacted by the proposed development that were not addressed in the original EPBC Act referral. These matters relate to impacts on Southern Brown Bandicoots (SBB) *Isoodon obesulus obesulus* (listed as Endangered under the EPBC Act), Australian Grayling *Prototroctes maraena* and Dwarf Galaxias *Galaxiella pusilla* (both listed as Vulnerable under the EPBC Act).

Specifically, DEWHA has requested the following additional information:

1. Provision of more information and/or figures detailing the footprint development, particularly in relation to river banks and farm dams, as well as the rationale for intended

removal or degradation of any landscape features outside of the intended construction footprint;

2. Provision of further information on SBB, including either targeted surveys or a detailed argument, based on the ecological requirements for the species, as to whether the species is likely to occupy or utilise the site;
3. Provision of further information on potential impacts on Australian Grayling and Dwarf Galaxias within the vicinity of the proposed impact area (i.e. Ararat Creek and farm dams within the study area), including either targeted surveys or a detailed argument, based on the ecological requirements for the species, as to whether the species is likely to be impacted by the action; and,
4. Provision of a revised version of the '*Conservation Management Plan for the Growling Grass Frog Litoria raniformis at the Proposed Nar Nar Goon Racecourse* (Ecology Partners Pty Ltd 2009). The revised plan must contain explicit instructions on the following:
 - Maintaining continuity of habitat for GGF, including a timeframe for creation of wetlands in relation to the schedule for project construction works; and,
 - Further information on access to GGF habitat areas, during construction and operation of the racecourse, including specific detail on signage and fencing.

Response

1. Development Footprint

The attached figure (Figure 1) details the construction footprint in relation to river banks and farm dams. It shows that the development will be at least 200 metres from any creekline on the property. Eight small dams, that are deemed to provide marginal quality habitat for GGF (because of the lack of fringing and emergent vegetation, the ongoing disturbances posed by grazing leading and the visually poor water quality) are proposed for removal, which is the reason that the larger complex of wetlands that will be designed specifically to cater for a future population of Growling Grass Frog will be constructed in the south-western portion of the property (Figure 1). The proposed conservation area will be zoned accordingly pursuant to the Cardinia Planning Scheme, and thereby limit the future land use of the area, subject to local Council approvals. A Special Use Zone for this area has been gazetted by the Victorian Planning Minister.

There will be no impact on landscape features beyond the construction footprint. That is, no vegetation will be impacted within 200 metres of the creekline. Potential indirect impacts will also be managed on-site to avoid significant impacts in retained vegetation or the creekline.

Whilst the proposed development will require the upgrade of an existing road, the removal of remnant native vegetation will be kept to a minimum, and these works will not impact any matters of NES.

2. Southern Brown Bandicoot

Targeted surveys for SBB have previously been recommended within the study area despite there being no recent records of this species during general fauna surveys of the ostensibly suitable habitat within the study area (Biosis Research Pty Ltd 2008, AVW 2009). However, SBB are known to persist in areas of heathy or dense vegetation, often dominated by Blackberry *Rubus fruticosus* spp. agg. and Gorse *Ulex europaeus* (Coates *et al.* 2008) and SBB have been recorded to the east of the study area (AVW 2009). Areas of vegetation adjacent to Ararat Creek provide low quality but potentially suitable habitat for SBB within the study area, and, as stated above, whilst not recorded during recent assessments, they have a low likelihood of occurrence within the vegetation along the creekline (Biosis Research Pty Ltd 2008).

Due to the possibility that SBB may occur within the vegetation adjacent Ararat Creek within the study area, Pakenham Racing Club opted to completely avoid any areas of potential habitat for this species. Therefore, the development plan completely avoids the riparian vegetation along Ararat Creek and adjacent vegetation connected to the creek, and provides a large buffer zone around these areas to ensure that there is no impact on this vegetation from the development. All other vegetation within the study area is considered very unlikely to support SBB. The approach of avoiding potential habitat is consistent with the recommendations of the *Southern Brown Bandicoot Management Plan for the former Koo Wee Rup Swamp area* (Ecology Australia Pty Ltd 2009).

By avoiding areas of vegetation that may support SSB on an occasional basis and because of the lack of suitable habitat for SBB in other parts of the study area, targeted surveys for SBB were considered unnecessary, and were not undertaken. SBB is highly unlikely to be impacted by the proposed development.

3. Potential impacts to Australian Grayling and Dwarf Galaxias

Australian Grayling

The Australian Grayling is a medium sized fish, generally growing to 190 millimetres, however it has been known to grow to 330 millimetres (Backhouse *et al.* 2008b). Most of its life is spent in freshwater, though at least some of its juvenile stage is spent in coastal seas (Backhouse *et al.* 2008b). Spawning occurs in freshwater in late summer to winter, and is generally initiated by an increase in volume and flow rate of rivers and streams, possibly coupled with decreases in water temperature (Backhouse *et al.* 2008a; 2008b).

The Australian Grayling is known from rivers and streams draining into the sea, south and east of the Great Dividing Range (McDowall 1996). The Australian Grayling is known to occur in waterbodies near Ararat Creek but has not been recorded in that waterway (AVW 2007). There are four records of Australian Grayling from within a 10 kilometre radius of the study area, the most recent in 1998 (AVW 2007).

Dwarf Galaxias

Dwarf Galaxias are patchily distributed throughout coastal drainages of Victoria and south-eastern South Australia, as well as northern Tasmania (Allen *et al.* 2002, McDowall and Fulton 1996). This species inhabits both permanent and ephemeral waters. It has a preference for still or slow flowing systems, usually where there is a dense cover of aquatic macrophytes or emergent plants (McDowall and Fulton 1996). It is also suspected that the species seeks refuge in crayfish burrows where ephemeral wetlands dry out in summer (Allen *et al.* 2002, McDowall and Fulton 1996, DEWHA 2008). Dwarf Galaxias have not been recorded in Ararat Creek (AVW 2007), but have been recorded 11 times within 10 kilometres of the study area (AVW 2007).

Potential Impacts

There is potential habitat within Ararat Creek for both Dwarf Galaxias and Australian Grayling, however neither species are known to occur within this creek, despite being present in the wider catchment (Backhouse *et al.* 2008b; Saddler *et al.* 2010).

The development plan for the proposed racecourse avoids impacts on Ararat Creek, and therefore no direct impacts to potential fish habitat will occur. The existing right to take water from Ararat Creek for agricultural purposes will be forgone, and water required for watering the planted vegetation (to ensure survival and habitat for GGF) will be purchased, and truck onto the GGF ponds.

During the construction process, all sediment will be contained on-site in accordance with Sediment and Erosion Control Plan and a Construction Environment Management Plan. Any overflow from the construction site will be diverted into large storage dams constructed within the study area (and north and east of the proposed GGF ponds) (Figure 1). No stored water will be discharged into Ararat Creek as water stored within the stormwater interception dams (or storage dams) will be required for watering the racing track. This water, once settled and is of sufficiently high quality, will be the source of water for the GGF habitat ponds when they require “topping up”. This is a further measure to ensure that the waterways are not impacted by the development either during construction or in the operational phase of the project.

The very small amounts of stormwater overflow that may enter the waterway during high rainfall events is therefore expected to be high quality, and have considerably less impact on the

ecological values of the creek, than currently occurs at the site, or at any other property along the creekline. It is therefore not likely to impact Dwarf Galaxias or Australian Grayling, if present.

4. Growling Grass Frog CMP

The replacement of the two dams that provide low quality habitat for GGFs, on an occasional basis, will be replaced with three wetlands that will be specifically designed and constructed in the southern part of the study area with the intention to support a future population of GGF (Figure 1). These wetlands will be constructed and maintained in a manner that will maximise the habitat values of the wetlands for GGFs, which includes clean water and indigenous aquatic vegetation. While low quality water within two overflow dams will be used to water tracks and during construction, high quality water will be directed to the GGF wetlands. These management actions will result in a net improvement in the quality and quantity of habitat that is available for this species as described within the CMP.

By moving the area of potentially suitable GGF habitat from the two paddocks near the middle of the study area, to the southern portion of the land parcel near Ararat Creek, it is likely that habitat connectivity will be enhanced. The frogs, after the construction is completed, will have a shorter distance to travel between created wetlands and an important dispersal corridor, than they currently experience. Furthermore, they will be located closer to other known sites where the species has recent been recorded. The current records represent the north-eastern most records within the general region.

Section 3.3 of the GGF Conservation Management Plan (Ecology Partners Pty Ltd 2009) provides the schedule of works (Appendix 1). It states that the creation of the frog wetlands, the salvage of frogs from the existing dams and the back-fillings of those dams, will take place in a staged approach to ensure continuity of habitat for frogs that reside in the study area.

The Growling Grass Frog CMP (Ecology Partners Pty Ltd 2009) has been updated in the following manner:

3.6.4 Human Access to the Frog Ponds

'After creation of the wetlands is complete, they will be fenced off as 'no-go areas'. Initially these fences will restrict access to the wetlands by construction workers, and, once the construction is complete, these fences will remain so that members of the general public will not be able to access the wetlands. Fences will be erected and maintained at a distance of at least 25 metres from the edge of waterbodies. Signage will be fitted to the fence along each aspect that prohibit unauthorised entry to the frog habitat.'

Access to the wetlands will then only be for the purposes of maintenance, as detailed in this plan.

I hope this additional information has been of assistance in addressing the issues raised in aforementioned letter. The range of management options and the design of the development have all been created to minimise its impact on matters of NES. Where these matters are likely to be impacted, specific mitigation measures have been implemented to ensure that a net improvement in the extent and quality of habitat for GGF is achieved.

References

- Allen, G.R., Midgley, S.H. and Allen, M. 2002. Field Guide to the Freshwater Fishes of Australia. Western Australian Museum. Perth.
- Backhouse, G., Jackson, J. and O'Connor, J. 2008a. National Recovery Plan for the Australian Grayling *Prototroctes maraena*. Department of Sustainability and Environment, Melbourne.
- Backhouse, G., Jackson, J. and O'Connor, J. 2008b. Background and Implementation Information for the Australian Grayling *Prototroctes maraena* National Recovery Plan. Department of Sustainability and Environment, Melbourne.
- DEWHA. 2008. *Galaxiella pusilla* in Species Profile and Threats Database, Department of the Environment, Water, Heritage and the Arts, Canberra. Available from URL: <http://www.environment.gov.au/sprat>.
- Ecology Australia 2009. Southern Brown Bandicoot Management Plan for the former Koo Wee Rup Swamp area. Unpublished report by Ecology Australia for Cardinia Shire Council and Melbourne Water.
- Ecology Partners Pty. Ltd. 2009. Conservation Management Plan for the Growling Grass Frog *Litoria raniformis* at the proposed Nar Nar Goon Racecourse. Unpublished report by Ecology Partners Pty Ltd for Pakenham Racing Club September 2009.
- McDowall, R.M. 1996 (Ed.) Freshwater Fishes of South-eastern Australia. Reed Pty Ltd, Sydney.
- McDowall, R.M. and Fulton, W. 1996. Galaxiids in Freshwater Fishes of South-Eastern Australia (revised edition) McDowall, R.M. (ed). pp 52–77. Reed Books, Chatswood NSW.
- Saddler, S., Jackson, J. and Hammer, M. 2010. National Recovery Plan for the Dwarf Galaxias *Galaxiella pusilla*. Department of Sustainability and Environment, Melbourne.

Appendix 1 – Extract from *Conservation Management Plan for the Growling Grass Frog Litoria raniformis at the proposed Nar Nar Goon Racecourse (Ecology Partners 2009)*

3.3 Proposed Schedule of Works

The proposed schedule of works will be undertaken in a timeframe which suits the biology of Growling Grass Frog, although it is somewhat dependant on the outcomes of the approvals process, and the proposed construction process. The Pakenham Racing Club is responsible for commissioning and overseeing the following:

Winter 2010:

- Submit EPBC Referral to DEWHA.

Spring 2010:

- Prepare an Erosion and Sediment Control Plan.
- Prepare a Weed Management Plan.
- Prepare a Revegetation Plan.
- Commence excavation for the Growling Grass Frog ponds.
- Revegetate and undertake habitat enrichment works at the Growling Grass Frog Ponds. Ensure habitat is suitable containing sufficient water depth, water quality, cover etc.

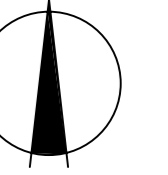
Summer 2010/11:

- Any frogs that have not relocated to the new ponds will be physically salvaged and relocated. Dams which provide potential habitat will be drained and backfilled within a day of relocating individuals.

Ongoing:

- Implementing this Plan and monitoring the Growling Grass Frog population in accordance with this Plan.

Figure 1 – Development Masterplan showing proposed Storage Dams and Ponds (10706MP01, Rev F).



Chippendale Road Intersection

Main Entrance

NAR NAR GOON - LONGWARRY ROAD

CHIPPENDALE ROAD

Accommodation/Exhibition/Conference Facilities (Ska)

Future Development (Ska)

Stage 3 onwards Trainers Allotments

Stage 2 Trainers Allotments

Stage 2 Trainers Allotments

Spectator BBQ/Playground Area

Public Car Park

Manure

Grandstand

Stabling

Float Park

Striping Stalls

Float Park

Exercise Ring

Maintenance

Treatment Plant

100yr setback line

Wetlands

100yr flood line

250yr setback line

GGF ponds

Water storage

100yr flood line

Wetlands

50m setback line

100yr flood line

50m setback line

100yr flood line

50m setback line

100yr flood line

50m setback line

100yr flood line

50m setback line

100yr flood line

50m setback line

100yr flood line

50m setback line

100yr flood line

25m Wide Course Proper

Synthetic Track

Grass Track

200m long

Warmup Track

Exercise Track

Tunnels

100m long

100m long

100m long

100m long

100m long

100m long

100m long

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ISSUED 13 July 2010

OVERALL MASTERPLAN

REV	AMENDMENTS	DATE	APPD.
F	RACEDAY & TRAINING FACILITIES REVISIONS	13/07/10	SD
E	TRAINERS ALLOTMENTS AMENDMENTS	29/06/10	SD
D	TRACK ROTATED 5° FROM 200M CHUTE	03/06/10	SD
C	STAGING AREAS	17/05/10	SD
B	PLAN AMENDED	28/03/10	SD
A	PRELIMINARY ISSUE	18/3/2010	SD

Drawn BG Date 03/06/10
 Designed AN
 Date AN
 Verified AN
 Date AN
 Audited AN
 Date AN
 Approved AN
 Date AN
 Within dimensions to take precedence over scale.
 Contractor shall check and verify all dimensions on site.
 Discrepancies to be brought to the attention of the Superintendent.



PAKENHAM RACING CLUB
 NAR NAR GOON - LONGWARRY ROAD
 TYNONG
 MASTER PLAN



Coords: MGA
 Levels: AHD
 Hor 1:2500 0m 25m 50m 100m 150m
 Scale @ A0 1:2500

Drawing No. 10706MP01 Rev F
 Sheet No. 01 PRELIMINARY
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