

# Attachment 8 - 574 Meander Valley Road Prospect Summary of Impacts (Pages = 13)

28 April 2015

Richard Jamieson  
Manager Planning Services  
City of Launceston

Dear Richard,

## **RE: Summary of impacts associated with the development at Strathroy Agri Park Development**

The land to be developed for the Strathroy Agri Park is predominantly agricultural land with patches of highly degraded remnant forest. The development footprint of the site including sediment detention basins is 60.7 hectares in total. There is a total of 16.8 hectares of native vegetation present at the site that will be impacted by the development. None of the habitat present at the site provides habitat for threatened fauna species. As none of the vegetation at the site is classed as vulnerable and the volume of vegetation to be cleared is under 100 tonnes, a forest practices officer (Greg Williams) has determined that a Forest Practices Plan is not required for the site.

No threatened vegetation communities listed under the *Nature Conservation Act 2002* or the *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* were identified within the construction footprint. An area of the state listed *Melaleuca ericifolia* forest (NME) is situated to the south of the construction site. This vegetation community is identified within the biodiversity code of the Launceston Interim Planning Scheme due to its threatened listing. The code also identifies the vegetation as a buffer for the Kings Meadows Rivulet. This area of vegetation will not be impacted by the development.

Three threatened flora species listed under the *Threatened Species Protection Act 1995* (Tas) were recorded in the study area. They are *Arthropodium strictum* - Chocolate lily, *Hypoxis vaginata* var. *brevistigmata* - Sheathing Yellow Star and *Caesia caliantha* - Blue grasslily. All three are listed as rare but are regionally abundant in locations in the North and Midlands. A permit to take (attached) has been issued by the Department of Primary Industries, Parks, Water and Environment for threatened flora across the site. An amendment to include an additional 155 plants within the southern sediment basin is currently being processed. No threatened flora listed on the *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* (EPBC Act) were identified during the survey.

Four threatened fauna species listed under the TSP Act and EPBC Act may occur or have suitable habitat in the study area. They are Eastern-Barred Bandicoot, Masked Owl, Tasmanian Devil and Spotted Tailed Quoll. The habitat provided for each species at the development site is not considered significant habitat as no nesting or denning habitat was present. As no dens or nesting sites were identified a permit to take a product of wildlife under the *Nature Conservation Act 2002* is not required for the development. There are no environmental matters at the site that require further assessment under state or commonwealth legislative or regulatory processes.

Water quality leaving the site will be managed by appropriate urban sensitive design for stormwater including sediment control basins. Sediment and erosion controls during construction will minimise water quality impacts by minimising the sediment loads and runoff leaving the site. Riparian vegetation will not be cleared during construction hence identified riparian buffers for the Kings Meadows Rivulet will not be impacted by the development.

In summary the environmental impacts of the proposed Strathroy Agri Park development have been assessed for the entire development footprint, not just staged sections. The results of the impact assessment are that there will be no significant impacts on vegetation communities or threatened flora and fauna. Further with controls implemented during construction the water quality of the Kings Meadows Rivulet will not be impacted by the development.

Yours sincerely

A handwritten signature in black ink, appearing to read 'C. Murdoch', with a horizontal line extending to the right.

Catherine Murdoch  
Bachelor of Applied Science, Certified Environmental Practitioner,  
RABQSA Lead Environmental Auditor

Strathroy Agri Park Industrial Subdivision

574 Meander Valley Road, Prospect

Environmental Impact Assessment

April 2015

Report prepared by Catherine Murdoch  
Bachelor of Applied Science, Certified Environmental Practitioner,  
RABQSA Lead Environmental Auditor

Phone: 0428 385 503  
Email: [murdoch@live.com.au](mailto:murdoch@live.com.au)

## Purpose and Scope

Beaumont Percival Grubb engaged AKS Forest Solutions in November 2014 and March 2015 to undertake a vegetation and fauna habitat assessment for the proposed industrial rezoning and 4 lot subdivision development at 'Strathroy', 574 Meander Valley Rd, Prospect Vale. The purpose of the survey was to locate any threatened flora or fauna within the proposed development site including the southern sediment basin which is located in vegetation to the south of the main lot developments.

The surveys determined that the development site is predominantly agricultural land with patches of remnant forest. The site has been highly disturbed over a long period of time. The development site adjoins a contiguous 147 hectare patch of native vegetation to the north (that includes 89 hectares in the Kate Read reserve) and a contiguous 72 hectare patch of native vegetation on the development property to the south. The southern sediment basin is situated within *Eucalyptus viminalis* grassy forest and woodland (DVG) within this area with a total of 1.6 hectares to be cleared if the basin is required. A Forest Practices Plan is not required for this clearing as the vegetation community is not classed as vulnerable nor is the amount of vegetation to be cleared over 100 tonnes.

No threatened vegetation communities listed under the *Nature Conservation Act 2002* or the *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* (EPBC Act) were identified within the development site.

Three threatened flora species listed under the *Threatened Species Protection Act 1995 (Tas)* (TSP Act) were recorded in the study area. They are *Arthropodium strictum* - Chocolate lily, *Hypoxis vaginata* var. *brevistigmata* - Sheathing Yellow Star and *Caesia caliantha* - Blue grasslily. All three are listed as rare but are regionally abundant in locations in the North of Tasmania and in the Midlands. A permit to take has been issued by the Department of Primary Industries, Parks, Water and Environment for threatened flora across the site including the southern sediment basin. No threatened flora listed on the *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* (EPBC Act) were identified during the survey.

Four threatened fauna species listed under the TSP Act and EPBC Act may occur or have suitable habitat in the study area. They are Eastern-Barred Bandicoot, Masked Owl, Tasmanian Devil and Spotted Tailed Quoll. The habitat provided for each species at the development site is not considered significant habitat as no nesting or denning habitat was present. As no dens or nesting sites were identified a permit to take a product of wildlife under the *Nature Conservation Act 2002* is not required.

There are no environmental matters at the site that require further assessment under state legislative or regulatory processes. Hence, the purpose of this report is to complete an impact assessment by applying the significant impact guidelines for matters of national environmental significance to survey results of the proposed development site.

## Impact Assessment

This section of the report provides an analysis of the impacts of the proposed development on each of the threatened species identified as having potential habitat at the site. The national significant impact guidelines have been used as the basis of the assessment.

## 1. *Aquila audax subsp. fleayi* (wedge-tailed eagle)

### **Listing status:**

Endangered

### **Potential impact(s) without avoidance and/or mitigation:**

Wedge-tail eagles nest in old growth native forests. They choose old growth trees in relatively sheltered sites for locating their nests. Territories can contain up to five alternate nests usually close to each other but may be up to 1 km apart where habitat is locally restricted. Wedge-tail eagles prey and scavenge on a wide variety of fauna including fish, reptiles, birds and mammals. Adults are highly territorial and have very large home ranges. Although considered to be widespread but uncommon at the time of European settlement the breeding success has decreased to a point where it is now considered that fewer than 100 pairs are successful at breeding each year.

The greatest single threat to the species is the continuing decline in breeding success as a result of disturbance of breeding birds and loss of nesting habitat. An unnaturally high mortality as a result of persecution (illegal shooting, trapping and poisoning), electrocution and collision (with vehicles, fences and wires) may also limit breeding success.

There is only very limited suitable habitat for nesting trees within 1km of the development site. Three potential areas of habitat within 1km Line of Sight of the development site were searched investigated. The grounds survey determined that no suitable nesting habitat existed at the development site. Hence the development site only provides foraging habitat for the species.

There is a very low risk of any impacts on the species from the project's construction or operation.

### **Avoidance and/or mitigation commitment(s):**

Impacts on potential nesting trees have been avoided by the development site being positioned outside of known or potential nesting habitat.

An additional commitment of ensuring that no nests are within 500 metres during construction activities at the site would ensure that there are no impacts on the species as a result of the development going ahead.

### **Residual impact(s) after avoidance and/or mitigation:**

There are no significant residual impacts on this species as a result of the development.

### **Assessment of likelihood of significance of residual impact(s):**

| <b>Criterion*</b>   | <b>Assessment</b>  | <b>Significant impact likelihood</b> |
|---|--|--------------------------------------|
| <i>Lead to a long-term decrease in the size of a population</i> | The Strathroy agri park development will avoid potential nesting trees and hence have no impact on nesting habitat. The action may lead to foraging habitat but as there is already large tracts of similar habitat adjacent to and surrounding the development site any loss of habitat for potential eagle prey species would be only very marginal. The action is therefore unlikely to have any significant impact on wedge-tailed eagle population sizes. | Unlikely                             |
| <i>Reduce the area of occupancy of the species</i>              | The Strathroy agri park development will not impact on any nesting trees so will have no impact on eagle nesting habitat. Further the conversion of the paddocks and minimal clearing at the will at most lead to only marginal changes to prey species abundances. Any marginal changes are unlikely to be significant enough to lead to changes in eagle foraging  | Unlikely                             |

|  |  |                 |
|--|--|-----------------|
|  | patterns and hence to the area of occupancy of the species.  |                 |
| <i>Fragment an existing population into two or more populations</i>  | With no impact on nesting habitat and at most marginal changes to foraging habitat, there is no known causal mechanism by which the action could fragment a wedge-tailed eagle population.   | Unlikely        |
| <i>Adversely affect habitat critical to the survival of a species</i>  | The Strathroy agri park development will avoid potential nesting trees and hence have no impact on nesting habitat that is critical for the survival of the species. Given the size and extent of the foraging habitat at the site it is not considered critical habitat for the species survival. The action will therefore have no significant impact on eagle foraging habitat.   | Unlikely        |
| <i>Disrupt the breeding cycle of a population</i>  | The Strathroy agri park development will avoid potential nesting trees and hence have no impact on nesting habitat. No known nests occur within 1 km of the proposed construction zone. Construction activities are therefore unlikely to impact on breeding pairs, irrespective of whether construction occurs within the breeding season or not.   | Unlikely        |
| <i>Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline</i> | The Strathroy agri park development will avoid eagle nesting habitat and at most cause only marginal changes to foraging habitat, changes that are unlikely to lead to any decline in eagle populations.   | Unlikely        |
| <i>Result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat</i>            | There is no invasive species that is identified as harmful to wedge tailed eagle. There is no causal mechanism associated with the development that could lead to an introduction of an invasive species harmful to wedge-tailed eagles.   | Unlikely        |
| <i>Introduce disease that may cause the species to decline</i>   | There is no identified causal mechanism by which the development of the Strathroy agri park could lead to an introduction of disease to wedge-tailed eagles.   | Unlikely        |
| <i>Interfere with the recovery of the species</i>  | The greatest single threat to the species is the continuing decline in breeding success as a result of disturbance of breeding birds and loss of nesting habitat. However, the proposed development will have no significant impact on breeding or on nesting habitat. Also, the proposed development will introduce no greater likelihood of unnaturally high mortality as a result of persecution (illegal shooting, trapping and poisoning), electrocution and collision (with vehicles, fences and wires) than already exists. | Unlikely        |
| <b>Overall assessment</b>  |  | <b>Unlikely</b> |

## 2. *Tyto novaehollandiae castanops* (masked owl (Tasmanian))

### **Listing status:**

Vulnerable

### **Potential impact(s) without avoidance and/or mitigation:**

*Tyto novaehollandiae castanops* is endemic to Tasmania, including several near shore islands. The densities of the sub species vary across the state with the highest densities occurring in the east and north and the lowest densities at elevations more than 600 m in the western half of the state (this could be due to the lack of survey effort).<sup>1</sup>

The proposed Strathroy industrial agri park lies within its known distribution range.

The species inhabits a diverse range of forests and woodlands, including agricultural and forest mosaics. Particularly favoured are forests with relatively open under stories, especially when this habitat adjoins areas of open or cleared land. Nesting occurs in large tree hollows of living or dead trees but sometimes in vertical spouts or limbs.<sup>2</sup>

<sup>1</sup><http://www.environment.gov.au/biodiversity/threatened/species/pubs/67051-conservation-advice.pdf>

<sup>2</sup><http://www.environment.gov.au/biodiversity/threatened/species/pubs/67051-conservation-advice.pdf>

The masked owl requires a mosaic of forest and open areas for foraging and large old-growth hollow-bearing trees for nesting with old growth white gums being favoured. Several sites with remnant white gums and stringybark occur but no sites were observed to have suitable tree hollows of a large enough size.

Threats to *Tyto novaehollandiae castanops* include<sup>3</sup>:

- Habitat clearing and fragmentation, including forestry activities (conversion of native forest to monoculture plantation or agriculture has resulted in the loss of nesting habitat and foraging habitat)
- Rural tree decline (tree loss from dieback is causing a continuing loss of nesting habitat)
- Secondary poisoning (from consumption of flesh from another animal that has ingested a poison, for example 1080)
- Collision mortality (for example power lines and vehicles); and
- Competition for tree hollows (loss of nesting habitat results in increasing competition for large tree hollows).

The main threat is loss of nesting habitat, which is hollows in old growth trees, preferentially white gums (*Eucalyptus viminalis*). The owl is known to nest in isolated trees in otherwise cleared grazing land.

A number of areas across the site contain white gums but no trees were observed to have suitable tree hollows of a large enough size for the species. Thirteen trees in the proposed development area do however support hollows that may develop to support this species and are identified in figure 5 below.

Loss of these trees would reduce the potential availability of nesting hollows forming in these trees in the future and could therefore reduce the future availability of nesting habitat for the owl.

**Avoidance and/or mitigation commitment(s):**

The location of potential habitat trees for the species within proposed development area will be noted on environmental protection guideline maps. Construction will be adjusted where possible to avoid the removal of any potential masked owl habitat trees.

During construction, where possible, potential habitat trees will be protected from damage by establishing no-go zones around the root zone, using the tree’s canopy extent as the measure of the likely root zone extent.

**Residual impact(s) after avoidance and/or mitigation:**

No residual impacts can be identified.

**Assessment of likelihood of significance of residual impact(s):**

| Criterion*  | Assessment   | Significant impact likelihood |
|---|--|-------------------------------|
| <i>lead to a long-term decrease in the size of an important population of a species</i> | The protection of potential future masked owl nesting trees from disturbance during construction will avoid potential impacts on the species breeding success. | Unlikely                      |
| <i>reduce the area of occupancy of</i>  | The retention of existing potential masked owl nesting trees will avoid any  | Unlikely                      |

<sup>3</sup> <http://www.environment.gov.au/biodiversity/threatened/species/pubs/67051-listing-advice.pdf>

|  |  |                 |
|--|--|-----------------|
| <i>an important population</i>   | disturbance to the area currently used by masked owls and hence avoid potential impacts of the area of occupancy.  |                 |
| <i>fragment an existing important population into two or more populations</i>  | By avoiding potential disturbance to nesting trees and hence to areas that might be used by masked owls, there is no causal mechanism by which any local population could be fragmented.   | Unlikely        |
| <i>adversely affect habitat critical to the survival of a species</i>  | The loss of nesting habitat is the greatest threat to the survival of masked owls and the project's avoidance of disturbance to potential nesting trees will avoid potential impacts on critical habitat.                        | Unlikely        |
| <i>disrupt the breeding cycle of an important population</i>   | By avoiding potential disturbance to nesting trees the breeding cycle of any local masked owl population will not be impacted.   | Unlikely        |
| <i>modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline</i> | The loss of nesting habitat is the greatest threat to the survival of masked owls and the project's avoidance of disturbance to potential nesting trees will avoid potential impacts on habitat quality.                         | Unlikely        |
| <i>result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat</i>               | There is no identified causal mechanism by which the proposed development could lead to an introduction of an invasive species that might affect masked owl habitat trees to the extent that their breeding success is affected. | Unlikely        |
| <i>introduce disease that may cause the species to decline</i>   | There is no identified causal mechanism by which the proposed development could lead to an introduction of disease to masked owls.   | Unlikely        |
| <i>interfere substantially with the recovery of the species</i>  | The loss of nesting habitat is the greatest threat to the survival of masked owls and the project's avoidance of disturbance to potential nesting trees will avoid potential impacts on the recovery of the species.             | Unlikely        |
|  | <b>Overall assessment</b>  | <b>Unlikely</b> |

### 3. *Dasyurus maculatus maculatus* (spotted-tail quoll)

#### **Listing status:**

Vulnerable

#### **Potential impact(s) without avoidance and/or mitigation:**

The Spotted-tail Quoll (*Dasyurus maculatus*) is a medium-sized carnivorous marsupial found in forest habitats in south-eastern mainland Australia and in Tasmania. There are currently estimated to be 3000 to 4000 Spotted-tail Quoll remaining in Tasmania based on a density of about 1 per 300 ha. The density can be higher in the core habitat area in northern Tasmania and in other limited 'hot spots'; in the incised river valleys of the Gordon and Huon River catchments in southern Tasmania, and along a narrow strip of the west coast.

The species appears to be declining in abundance, and may be vulnerable to further declines through continued habitat removal and fragmentation.

Home ranges extend to more than 1,500 ha of continuous suitable habitat for a male and a little less for a female spotted-tailed quoll. Population densities are likely to be in the order of one individual per 4 km<sup>2</sup>, with female ranges largely exclusive and male ranges overlapping. Continuous habitat patches (denning and hunting) totalling more than 15,000 ha may be required to sustain a minimum viable population of 50 spotted-tailed quoll based on an exclusive home range of 300 ha.

Priority habitat for the species is generally described as lowland, high-rainfall forest across the north of Tasmania. The species requires forested areas with suitable shelter sites such as hollow logs or rocky caverns as denning habitat. This is distinguished from foraging habitat which can include non forest and regenerating forest areas adjacent to suitable denning habitat. The best foraging habitat is characterised by an abundance of mammalian prey species, which tends to be on fertile land and is often associated with riparian or alluvial sites as well as lower slopes in wet gullies. No denning habitat was identified at the Strathroy agri park development and the foraging habitat is considered



to be marginal given its lack of riparian and alluvial habitat. Hence it is highly unlikely that the development of the Strathroy agri park will have an impact on the species.

**Avoidance and/or mitigation commitment(s):**

No specific additional avoidance or mitigation commitments are warranted.

**Residual impact(s) after avoidance and/or mitigation:**

There are no significant residual impacts on the species expected due to the proposed development.

**Assessment of likelihood of significance of residual impact(s):**

| Criterion*   | Assessment  | Significant impact likelihood |
|--|---|-------------------------------|
| <i>lead to a long-term decrease in the size of an important population of a species</i>  | There is no potential denning habitat at the Strathroy agri park development site and the proposal and will introduce no significant changes to mammalian prey density within the development area. There is no known causal mechanism by which the proposal could lead to a decrease in size of an important quoll population.   | Unlikely                      |
| <i>reduce the area of occupancy of an important population</i>   | There is no potential denning habitat at the Strathroy agri park development site and the proposal and will introduce no significant changes to mammalian prey density within the development area. There is no known causal mechanism by which the proposal could lead to a decrease in size of an important quoll population.   | Unlikely                      |
| <i>fragment an existing important population into two or more populations</i>  | There is no known population of the quoll at the proposal site and the proposal does not include large scale clearing. There is no known causal mechanism by which the proposal could lead to a decrease in size of an important quoll population.  | Unlikely                      |
| <i>adversely affect habitat critical to the survival of a species</i>  | The Strathroy agri park development avoids potential denning habitat for the quoll and will introduce no significant changes the quoll's foraging habitat.  | Unlikely                      |
| <i>disrupt the breeding cycle of an important population</i>   | There is no important population of the species present at the site that could be impacted by the development. Hence there is no known causal mechanism by which the development could disrupt the quoll's breeding cycle.  | Unlikely                      |
| <i>modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline</i> | The Strathroy agri park development proposal avoids potential denning habitat for the quoll and will introduce no significant changes to mammalian prey density within the irrigation areas. There is no known causal mechanism by which the development could cause the species to decline.  | Unlikely                      |
| <i>result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat</i>               | Invasive species that could impact on the quoll would be other predators, such as foxes and feral cats, which could either prey directly on quolls or compete with quolls for other mammalian prey. The development proposal will not change the habitat at the site in preference for these species hence there is no known causal mechanism that could lead to an increase in abundance of foxes or feral cats or other invasive predators. | Unlikely                      |
| <i>introduce disease that may cause the species to decline</i>   | There is no known causal mechanism by which the proposal could lead to an introduction of disease to quolls.  | Unlikely                      |
| <i>interfere substantially with the recovery of the species</i>  | The Strathroy agri park development avoids potential denning habitat for the quoll, will introduce no significant changes the quoll's foraging habitat and will introduce no diseases or invasive predators. There is no known causal mechanism by which the development could interfere with the recovery of the species.  | Unlikely                      |
| <b>Overall assessment</b>  |   | <b>Unlikely</b>               |

\* An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will meet one of these criteria (Matters of National Environmental Significance, Significant Impact Guidelines 1.1, Environment Protection and Biodiversity Conservation Act 1999, October 2009)

#### 4. *Perameles gunnii gunnii* (eastern barred bandicoot)

##### **Listing status:**

Vulnerable

##### **Potential impact(s) without avoidance and/or mitigation:**

This bandicoot species is regarded as vulnerable at the national level primarily because it is near extinction on mainland Australia. Although rare or possibly extinct in the midlands, in other parts of Tasmania the species is widespread and relatively common. It has expanded into the mosaic of woodland remnants in the otherwise cleared agricultural landscape. It is not considered to be threatened in Tasmania<sup>4</sup>.

On the mainland, the main threats to the species are<sup>5</sup>:

- Introduced predators
- Drought
- Habitat loss.

It is likely that the species is present at the development site based on recorded sightings and the presence of suitable habitat.

This species favours a mosaic of open grassy areas for foraging with thick vegetation cover for shelter and nesting. The mosaic of farm land and remnant forest patches with a dense understorey of weeds in the general area provides suitable habitat.

The construction activities associated with the Strathroy agri park proposal will not have an impact on any significant habitat for the species.

##### **Avoidance and/or mitigation commitment(s):**

No specific additional avoidance or mitigation commitments are warranted.

##### **Residual impact(s) after avoidance and/or mitigation:**

There are no significant residual impacts on the species expected due to the proposed development.

##### **Assessment of likelihood of significance of residual impact(s):**

| <b>Criterion*</b>   | <b>Assessment</b>   | <b>Significant impact likelihood</b> |
|---|---|--------------------------------------|
| <i>lead to a long-term decrease in the size of an important population of a species</i> | It is highly likely that large numbers of the species is present in the remnant vegetation that surrounds the development proposal. The development proposal will not impact on this population therefore the proposal is unlikely to have any significant impact on eastern barred bandicoot population sizes.                                   | Unlikely                             |
| <i>reduce the area of occupancy of an important population</i>                          | The area in which the proposal will be constructed does not provide habitat for an important population. Extensive habitat for the species adjoins the proposed site. Any marginal changes to habitat that occur as a result of the development are unlikely to be significant enough to lead to changes to the area of occupancy of the species. | Unlikely                             |
| <i>fragment an existing important</i>   | With at most marginal changes to foraging and shelter habitat, there is no  | Unlikely                             |

<sup>4</sup> <http://www.parks.tas.gov.au/index.aspx?base=965>

<sup>5</sup> <http://www.environment.gov.au/biodiversity/threatened/publications/recovery/pubs/perameles-gunnii-recovery-plan.pdf>

|  |  |                 |
|--|--|-----------------|
| <i>population into two or more populations</i>   | identified causal mechanism by which the proposal could fragment an eastern barred bandicoot population.   |                 |
| <i>adversely affect habitat critical to the survival of a species</i>  | There is no habitat critical to the survival of the species present at the site.   | Unlikely        |
| <i>disrupt the breeding cycle of an important population</i>   | There is no known causal mechanism by which the proposal would disrupt the breeding cycle of an important population of the eastern barred bandicoot.  | Unlikely        |
| <i>modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline</i> | The Strathroy agri park will not impact on the contiguous vegetation that surrounds the proposal site hence it will not impact on quality habitat for the species.   | Unlikely        |
| <i>result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat</i>               | Invasive species that could impact on the eastern barred bandicoot would be predators, such as foxes and feral cats. There is no known causal mechanism by which the development could lead to an increase in abundance of foxes or feral cats or other invasive predators.  | Unlikely        |
| <i>introduce disease that may cause the species to decline</i>   | There is no identified causal mechanism by which the proposal could lead to an introduction of disease to the eastern barred bandicoot.  | Unlikely        |
| <i>interfere substantially with the recovery of the species</i>  | The greatest threats to the species are predators, drought and habitat loss. The development will not lead to the introduction of invasive predators or cause drought and any loss of native vegetation habitat for bandicoots would be only very marginal and could not affect the recovery of the species (which is not threatened in Tasmania). | Unlikely        |
| <b>Overall assessment</b>  |  | <b>Unlikely</b> |

*\* An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will meet one of these criteria (Matters of National Environmental Significance, Significant Impact Guidelines 1.1, Environment Protection and Biodiversity Conservation Act 1999, October 2009)*

## Measures to avoid or reduce impacts

This section of the report outlines the environmental controls that will be implemented for the construction of the Strathroy Agri Park development.

|   |
|---|
| <b>Environmental Protection Requirements (EPR)</b>  |
| <b>GENERAL CONTROLS</b>   |
| <b>Access to construction areas</b>   |
| Access points to construction areas will be selected to provide the shortest practical route from existing tracks or roads, and will avoid all native vegetation, waterways and drainage lines and any associated disturbance will be no wider than 6 m.                  |
| <b>Tree removal</b>   |
| Trees to be cleared or pruned will be noted on maps and will be identified by flagging tape or similar prior to construction commencing.  |
| Clearance activities at the Strathroy industrial agri park development site will be minimised to those that are required for construction. Trees and vegetation that can be retained will be marked on maps and identified as exclusion zones.                            |
| <b>Weed management</b>  |
| Weed and disease hygiene measures outlined in a weed management plan will be implemented during construction to reduce the risk of weed species becoming established.   |
| Washdown protocols, which will be in accordance with those described in the Weed Management and Hygiene Plan, will be in accordance with the DPIPWE <i>Washdown Guidelines for Weed and Disease Control – Machinery, Vehicles and Equipment – Edition 1</i> , April 2004. |
| Imported topsoil, crushed rock or gravel and organic revegetation matting will be certified to be weed and disease  |

|  |   |
|--|---|
| free by the supplier prior to being brought to site.   |   |
| <b>Sediment and erosion control</b>  |   |
| Erosion and sediment management controls will be installed to minimise offsite impacts. Controls will be inspected weekly, and daily during significant rain events, to confirm that they are working effectively. |   |
| <b>THREATENED ANIMALS</b>  |   |
| <b>Birds</b>   |   |
| <i>Aquila audax</i> subsp. <i>fleayi</i><br>(wedge-tailed eagle)   | If a previously unknown wedge-tailed eagle nest is discovered during the breeding season (August – January inclusive) within 500 metres of the construction zone, or within 1 km if in line of sight of the nest, all construction activity will immediately cease within this radius. The nest site will be inspected by the Forest Practices Authority zoologist and/or DPIPWE specialist, who will provide advice on appropriate further action. |
| <i>Lathamus discolor</i><br>(swift parrot)   | No specific commitments are warranted to avoid or mitigate impacts on this species.   |
| <i>Tyto novaehollandiae castanops</i><br>(masked owl (Tasmanian))  | The final construction footprint for the development will be been adjusted where possible to avoid the removal of any potential masked owl habitat trees.   |
|  | The location of the 13 potential masked owl habitat trees on the development area is noted on construction and planning documents.  |
|  | Protective no-go zones around future potential masked owl habitat trees that occur within the construction corridor will be marked with construction tape to isolate those trees from construction disturbance where possible.  |
| <b>Mammals</b>   |   |
| <i>Dasyurus maculatus maculatus</i><br>(spotted-tail quoll)  | No specific commitments are warranted to avoid or mitigate impacts on this species during construction.   |
| <i>Perameles gunnii gunnii</i><br>(eastern barred bandicoot)   | No specific commitments are warranted to avoid or mitigate impacts on this species during construction.   |
| <i>Sarcophilus harrisii</i><br>(Tasmanian devil)   | No specific commitments are warranted to avoid or mitigate impacts on this species during construction.   |

## Conclusion

The area in which the proposed industrial rezoning and subdivision at Strathroy Agri Park would be established provides marginal foraging habitat for three threatened fauna species, wedge-tailed eagle, eastern barred bandicoot and the spotted tail quoll.

There is no significant habitat (nesting, denning) at the site that is critical to important populations of any of these species. Whilst it is possible that the site may in the future provide suitable nesting habitat for the threatened masked owl given the better quality habitat for the species that adjoins the Strathroy Agri Park, the habitat present at the site is not considered significant or critical for the species. As the trees present are isolated paddock trees there is a possibility that they will succumb

to die back or other factors such as lightning strike. Hence there is no conclusive guarantee that any or all of the trees will develop into suitable nesting habitat for the species. The project will minimise clearing and not impact on the 174 hectare remnant that surrounds the proposed subdivision area. Hence the project will cause no significant change to the existing habitat values of these remnants. Accordingly, there will be no significant land-use change or clearing resulting from the development proposal.

The environmental commitments described in this report will ensure that listed species will not be impacted by the proposal.

The combination of infrastructure design and construction operational controls will ensure that the proposed rezoning and subdivision will not have a significant impact on any listed threatened species.