

Avoidance and Mitigation Measures

Background

It is proposed to clear 1.15 ha within Lot 1089 Wynne Road and Lot 888 Weld Rd, Capel (herein referred to as the subject site). The purpose of the clearing is to enable the establishment of a netted kiwi fruit orchard. In consideration of the scale and nature of the proposal, this will be a significant development for the locality which will also provide job opportunities for the local community. Estimated costs associated with the proposed development are provided below in **Table 1**.

Table 1. Establishment and Development Costs.

Item	Comments	Estimated Costs
Development Costs	Includes irrigation infrastructure, sheds, dam clearing, drainage, fencing, workers' accommodation, road grading, electrical supply upgrades. Majority to be sourced from local providers / labour.	\$1.65m
Plant & Equipment	Includes tractors & other farm vehicles, tools & associated equipment, security systems. To be sourced from local retailers, where available.	\$0.35m
Establishment Costs	Includes ground preparation, vine acquisition & planting costs, irrigation lines, trellising and crop protection infrastructure. Majority to be sourced from local retailers and utilising local labour where available.	\$10.00m

The following are the estimated annual labour costs upon the establishment of the farm.

- Farming: \$1.25m.
- Harvesting: \$600k.
- Overhead labour: \$200k.

Black Cockatoo Potential Impacts, and Avoidance and Mitigation Measures

Potential Impacts

The subject site contains 72 trees with a Diameter at Breast Height (DBH) of >50cm. Most of these trees (67) appeared not to contain hollows of any size. The remaining (5) trees contained apparent or obvious hollows, all of which were assessed as being unlikely to be suitable for black cockatoos to use for nesting purposes, due to the hollows apparent small size, unsuitable orientation and/or low height above ground level. No evidence of black cockatoo breeding was recorded during the fauna survey (Harewood 2023).

A small amount of foraging debris was located within the subject site. This activity was attributed to either Carnaby's black cockatoo or the forest red-tailed black cockatoo depending on the nature of the debris found. Quality foraging habitat within the subject site is likely to be less than 0.1 ha (Harewood 2023).

No evidence of roosting was observed.

At a regional scale, the surrounding 10 km area contains approximately 14,580 ha of better-quality habitat for black cockatoos which is in secure tenure. As such, habitat within the subject site comprises approximately 0.008% of this.

Avoidance Measures

To avoid potential impacts to black cockatoos, the applicant has considered alternative locations for the proposal. However, scattered paddock trees which constitute black cockatoo habitat are located throughout the subject site, denoting that vegetation clearing is unavoidable. The black cockatoo habitat assessment (Harewood 2023) was undertaken to identify the quality of habitat within the vegetated areas. Accordingly, the clearing footprint within the subject site has been specifically designed to avoid any areas which provide improved black cockatoo habitat. Areas of denser remnant native vegetation proposed for retention have the potential to support a wider range and higher density of some species of conservation significance. On this basis, the areas identified in **Figure 1** will be retained.

Given that the clearing area has historically been subject to livestock grazing (resulting in an absence of mid and understorey vegetation), the key environmental attributes are the mature habitat trees. These are interspersed throughout the clearing footprint and therefore areas of increased environmental value could not be reasonably isolated. Accordingly, it is considered that no other feasible avoidance measures can be implemented within the clearing footprint.

Mitigation Measures

In order to reduce the impacts from the proposed action, the following management measures will be implemented as described below.

Fauna Management

The proposed management actions to mitigate potential impacts to fauna include:

- Peg/flag areas to be cleared to avoid any unnecessary disturbance to adjacent vegetation;
- Plan clearing such that it does not result in the creation of isolated remnants of native vegetation that have no ecological corridors to allow fauna movement to adjacent areas;
- Restrict all vehicle use to designated roads and access tracks;
- Enforce compliance with onsite speed limits at all times;
- General housekeeping procedures such as litter removal at the perimeter of the Lots will be maintained to discourage fauna from entering the site;
- During clearing, a qualified fauna expert will be present to direct clearing operators, particularly when clearing trees that are occupied by fauna, to ensure that these are cleared in a way that allows the animals to safely mobilise to adjacent areas. In addition, they will supervise any animal handling and the rescue of injured animals should this be required;
- No stockpiling of topsoil or other material is to occur outside of the clearing boundary;
- If clearing during black cockatoo breeding season (i.e. August to May), check potential habitat trees (i.e. DBH in excess of 50 cm) for nesting hollows; and
- If active black cockatoo nests are located in the clearing footprint, do not clear until fledglings have left the nest.

Weed and Pathogen Management

The proposed management actions to mitigate potential impacts associated with weeds and pathogens include:

- All earthmoving and ground engaging equipment will be inspected and cleaned of vegetation, mud and soil prior to entry and exit of the impact area.

Vegetation Retention and Infill Planting

Areas (8.8 ha) identified for vegetation retention will be protected in perpetuity via the implementation of a conservation covenant. Furthermore, it is proposed to undertake infill planting within the vegetation retention areas and additional areas (refer to **Figure 1**) to provide improved habitat quality for black cockatoos and enhanced ecological linkages. Infill planting will be undertaken with the following species:

- *Corymbia calophylla*;
- *Eucalyptus marginata*;
- *Eucalyptus rudis*; and
- *Agonis flexuosa*.

Western Ringtail Possum Potential Impacts, and Avoidance and Mitigation Measures

Potential Impacts

Evidence of western ringtail possums (WRPs) within the subject site was observed during the day survey in the form of a single drey and some scats in two locations (Harewood 2023). This area is approximately 0.2 ha in size and is characterised by the presence of a small number of relatively close placed peppermints and other native trees. The evidence (a single drey and some scats) suggests this section of the subject site is supporting a small number of WRP individuals (one or two). These possums have possibly moved here from denser, more suitable habitat bordering the Capel River to the south given this section of the subject site is unlikely to support a self-sustaining population.

Most of the subject site represents unsuitable habitat for WRP given the remaining vegetation is comprised of widely scattered trees over grassland (Harewood 2023).

Much of the vegetation proposed for retention, in particular those areas bordering the Capel River, represent good quality WRP habitat given the presence of a denser more continuous midstorey vegetation unit dominated by peppermint (Harewood 2023).

At a regional scale, the surrounding 10 km area contains approximately 14,580 ha of potential habitat for WRPs which is in secure tenure. As such, habitat within the subject site comprises approximately 0.008% of this.

Avoidance Measures

To avoid potential impacts to WRPs, the applicant has considered alternative locations for the proposal. However, scattered paddock trees which constitute WRP habitat are located in a portion of the subject site and given the netting and production requirements, it is not feasible to avoid this vegetation. Furthermore, as stated above, areas avoided and proposed for retention represent good quality WRP habitat. The clearing footprint within the subject site has been specifically designed to avoid any areas which provide good quality WRP habitat. Areas of denser remnant native vegetation proposed for

retention have the potential to support a wider range and higher density of some species of conservation significance (refer to **Figure 1**).

Mitigation Measures

In order to reduce the impacts from the proposed action, the following management measures will be implemented as described below.

Fauna Management

The proposed management actions to mitigate potential impacts to fauna include:

- Peg/flag areas to be cleared to avoid any unnecessary disturbance to adjacent vegetation;
- Plan clearing such that it does not result in the creation of isolated remnants of native vegetation that have no ecological corridors to allow fauna movement to adjacent areas;
- Restrict all vehicle use to designated roads and access tracks;
- Enforce compliance with onsite speed limits at all times;
- General housekeeping procedures such as litter removal at the perimeter of the Lots will be maintained to discourage fauna from entering the site;
- During clearing, a qualified fauna expert will be present to direct clearing operators, particularly when clearing trees that are occupied by fauna, to ensure that these are cleared in a way that allows the animals to safely mobilise to adjacent areas. In addition, they will supervise any animal handling and the rescue of injured animals should this be required;
- No stockpiling of topsoil or other material is to occur outside of the clearing boundary.

Weed and Pathogen Management

The proposed management actions to mitigate potential impacts associated with weeds and pathogens include:

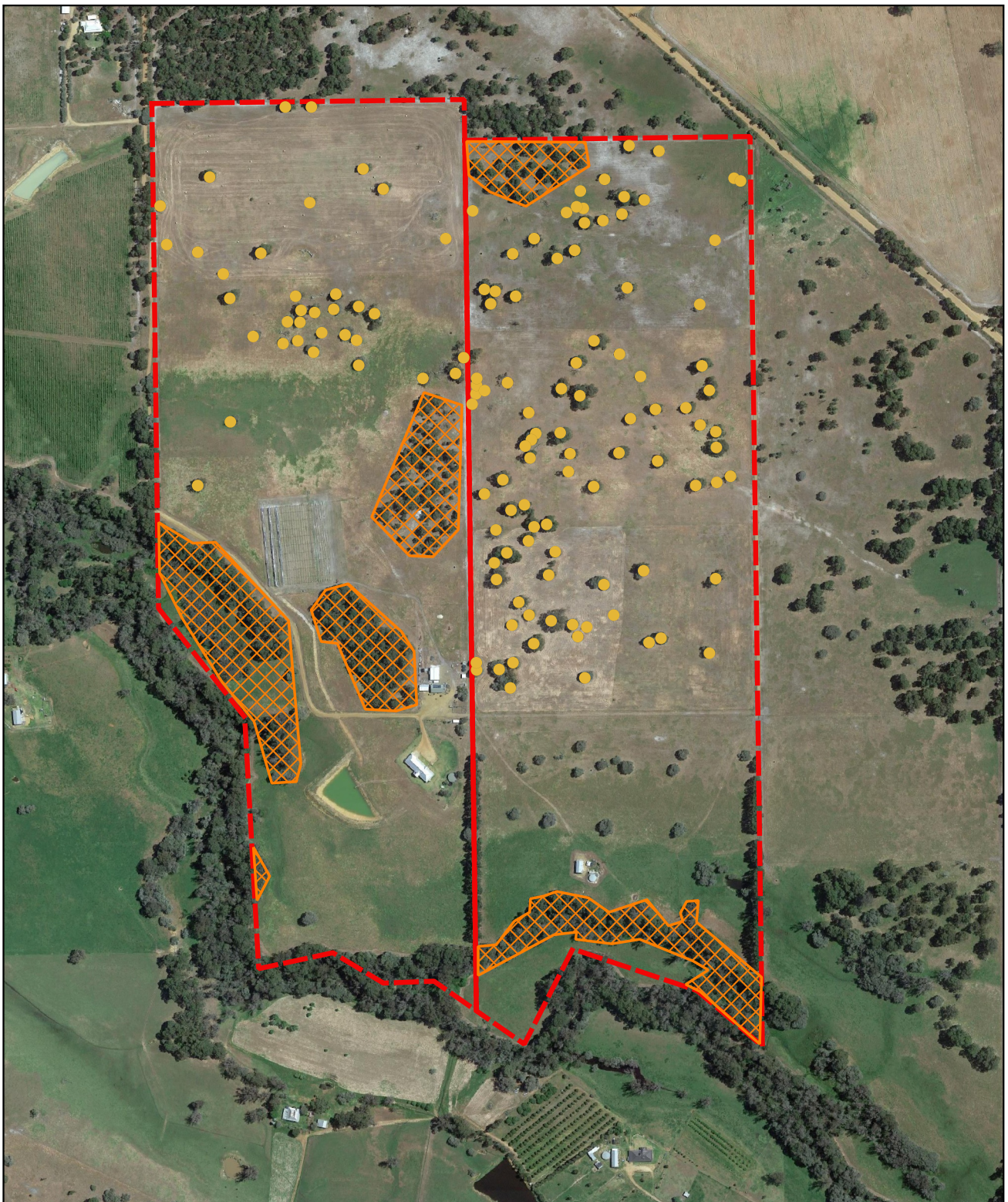
- All earthmoving and ground engaging equipment will be inspected and cleaned of vegetation, mud and soil prior to entry and exit of the impact area.

Vegetation Retention and Infill Planting




Areas (8.8 ha) identified for vegetation retention will be protected in perpetuity via the implementation of a conservation covenant. Furthermore, it is proposed to undertake infill planting within the vegetation retention areas and additional areas (refer to **Figure 1**) to provide improved habitat quality for WRPs and enhanced ecological linkages. Infill planting will be undertaken with the following species:

- *Corymbia calophylla*;
- *Eucalyptus marginata*;
- *Eucalyptus rudis*; and
- *Agonis flexuosa*.

FIGURES



Legend

-  Lot boundaries
-  Vegetation to be retained/revegetated (8.8 ha)
-  Vegetation to be cleared



PROJECT	Lot 1089 (No. 117) Wynne Rd & Lot 888 Weld Rd, Capel	Project Number	2350	Drawing Number	Figure 1	Revision	A
DRAWING TITLE	Figure 1 – Vegetation	Designed	PN	Checked	PN		
CLIENT	Argyle Group	Drawn	PN	Approved			
		Date	10/03/2020				
		Local Authority	Shire of Capel				
		Sheet 1 of 1					



PO Box 5178
 West Busselton
 Western Australia 6280
 Mobile 0418 950 852

This drawing has been prepared by, and remains the property of Accendo Australia Pty Ltd. This drawing shall not be used without permission. The drawing shall be preliminary only and/or not for construction until signed approved.