360 environmental

Lot 10 Mogumber Road West,
Mogumber

# Native Vegetation Clearing Permit: Offset Revegetation Management Plan

Prepared for

**Western Riverlands Poultry**

**June 2020**

people planet professional

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## Disclaimer

# Executive Summary

In 2017, the Mid-West/Wheatbelt Joint Development Assessment Panel approved (with conditions) (DAP/17/01175) the application to install six broiler poultry farms with internal shared access on Lot 10 Mogumber Road West, Mogumber.

Condition No. 5 of the approval required the proponent (Western Riverland's Poultry) to:

> "*Access to and egress from the property for trucks and farm vehicles to be designed and constructed, at the applicant's expense to the satisfaction of the Shire of Victoria Plains having regard to the safety of vehicles travelling on Mogumber Road West*".

The existing intersection and road reserve associated within the above planning approval contains native vegetation. It is noted that the road reserve is vested within the Shire of Victoria Plains. To complete Condition No. 5 of DAP/17/01175, the removal of native vegetation in accordance with road engineering design specifications is required and the proponent (in partnership with the Shire of Victoria Plains) submitted a Native Vegetation Clearing Permit (NVCP) under Part V of the *Environmental Protection Act 1986* in 2019.

As part of the NVCP assessment process, the Department of Water and Environmental Regulation (DWER) has issued a 'Request for Information' regarding the proposed offset strategy required to counterbalance the residual impacts to the proposed clearing (0.75 ha) of Black cockatoo foraging habitat within the NVCP footprint (CPS 8457/1).

360 Environmental completed an offset calculator based on site specific information from site assessment/surveys of the NVCP area and the proposed offset site. The calculator indicates a requirement of 2.87 ha for the offset site in response to clearing 0.75 ha of native vegetation.

A site assessment was completed by 360 Environmental Principal Botanist of remnant vegetation areas within Lot 10 Mogumber Road West to identify suitable sites.

One vegetation type was recorded for the Site, Low open woodland of *Eucalyptus todtiana, Banksia attenuata* and *Nuytsia floribunda* over low open shrubland of *Allocasuarina humilis*, *Eremaea pauciflora* and *Xanthorrhoea drummondii* sans lat over low sparse sedgeland of *Patersonia occidentalis* and *Mesomelaena pseudostygia*.

The majority of the offset site is considered to be in Good condition with localised pockets in Degraded condition. The offset site has native vegetation that has some community structure, however, there are patches throughout the offset that are low in diversity or consists of bare sand. The northern edge of the offset is a cleared track that separates it from the remnant vegetation to the north. The track is approximately 0.32 ha and once this has been revegetated it will join the offset to the remnant vegetation that is in excellent condition.

Due to the current condition of the topsoil of the offset site, no earthworks or soil manipulation is required. The cleared track consists of loose uncompacted sand that does not require deep ripping. The patches of bare sand throughout the offset is amongst native vegetation, therefore, soil disturbance is recommended to be avoided. Targeted weed spraying will be undertaken by

traversing the entire site by foot and spot spraying for weeds prior to the planting of tubestock and direct seeding. Seed collectors will be commissioned to undertake seed collection form the property, storage and treatment of seed to ensure plants of local provenance is used in the revegetation work. The site will undergo infill planting of black cockatoo foraging species, approximately 1500 individual trees are proposed to be planted during winter 2022. Direct seeding will be used for the establishment of understorey species. This technique is considered appropriate considering the offset site consists of remnant vegetation and the broad casting of seed within the bare patches is likely to be successful due to the cover and soil stability provided by surrounding vegetation. The species that will be used are those found to occur within the same vegetation type north of the offset site.

Signage will be installed along the boundary and access point to the revegetation area. A perimeter rural style fence (such as 1.2 m high steel post and ringlock fencing) will be installed along the south, west and east boundaries of the revegetation area. Fencing will not be put along the northern boundary as the aim is to connect the offset to the remnant vegetation.

Quantitative vegetation monitoring will be conducted using quadrats (10 x 10m) which will be permanently installed in the offset. Quadrats will be established in areas that provide a good representative sample of the revegetation activities. Monitoring data obtained from the quadrats will be used to assess the success of revegetation against completion criteria.

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**Appendix B DWER Request for Information**
**Appendix C Reference Site Quadrat Sheets**

# 1 Introduction

## 1.1 Background

In 2017, the Mid-West/Wheatbelt Joint Development Assessment Panel approved (with Conditions) (DAP/17/01175) the application to install six broiler poultry farms with internal shared access on Lot 10 Mogumber Road West, Mogumber (refer to Appendix A).

Condition No. 5 of the approval required the proponent (Western Riverland's Poultry) to:

> "*Access to and egress from the property for trucks and farm vehicles to be designed and constructed, at the applicant's expense to the satisfaction of the Shire of Victoria Plains having regard to the safety of vehicles travelling on Mogumber Road West*".

Advice Note of (DAP/17/01175), also stipulated that:

> "*The applicant is responsible for all costs associated with any required road upgrades, including design and approvals".*

The existing intersection and road reserve associated within the above planning approval contains native vegetation. It is noted that the road reserve is vested within the Shire of Victoria Plains. To complete Condition No. 5 of DAP/17/01175, the removal of native vegetation in accordance with road engineering design specifications is required and the proponent (in partnership with the Shire of Victoria Plains) submitted a Native Vegetation Clearing Permit (NVCP) under Part V of the *Environmental Protection Act 1986* in 2019.

As part of the NVCP assessment process, the Department of Water and Environmental Regulation (DWER) has issued a 'Request for Information' regarding the proposed offset strategy required to counterbalance the residual impacts to the proposed clearing (0.75 ha) of Black Cockatoo foraging habitat within the NVCP footprint (CPS 8457/1). A copy of the DWER letter is provided within Appendix B.

### 1.1.1 Proposed Offset Strategy

360 Environmental completed the offset calculator based on site specific information from site assessment/surveys of the NVCP area and the proposed offset site (completed by 360 Principal Botanist in May 2020). The calculator indicates a requirement of 2.87 ha for the offset site in response to clearing 0.75 ha of native vegetation.

A site assessment was completed by 360 Environmental Principal Botanist of remnant vegetation areas within Lot 10 Mogumber Road West, Mogumber (site currently owned by Western Riverlands Poultry) to identify suitable sites consisting of the following environmental attributes:

- Similar Vegetation Type EtBa (Low woodland of *Eucalyptus todtiana, Banksia attenuata, Banksia prionotes* over tall shrubland of *Adenanthos cygnorum, Lambertia multiflora* over mid sparse shrubland of *Allocasuarina humilis, Acacia pulchella, Xanthorrhoea drummondii* over low isolated shrubs of *Gastrolobium linearifolium, Acacia stenoptera*.
- Vegetation condition is classified as being Degraded to Good condition.

Due to the proposed offset site configuration, a 2.87 hectare (ha) offset site has been identified within the central section of the site adjacent to a consolidated patch of native vegetation and an existing pine plantation. The offset site consists of vegetation type EtBa, while a significant portion of the site is currently in Degraded to Good condition. There is also a cleared track (area) along the northern portion of the offset site and cleared patches within the site.

## 1.2 Project Description

This Revegetation Management Plan (RMP) has been developed for the proposed offset strategy in accordance with DWER (2018) *A Guide to Preparing Revegetation Plans for Clearing Permits* in response to clearing 0.75 ha of Black Cockatoo foraging habitat (native vegetation) within the existing Mogumber Road West Reserve to accommodate the road intersection upgrade in accordance with planning approval (DAP/17/01175) Condition No. 5.

## 1.3 Location

The location of the proposed clearing for the road easement and the proposed offset for the proposed clearing is shown in Figure 1. The site is located within the road reserve of Mogumber Road West abutting Lot 10, Mogumber to the south. The site is located approximately 103 km northeast of Perth's Central Business District (CBD) and approximately 61 km east of Lancelin townsite. The proposed works will be within a footprint of 2.49 ha and will comprise clearing approximately 0.75 ha of native vegetation. The location of the, is shown in Figure 1.

The offset site is located within Lot 10 Mogumber Road, Mogumber and is approximately 2.4 km south east of the proposed clearing area.

## 1.4 Purpose

Revegetation and management of the 2.87 ha area has been proposed to counterbalance the impacts to the clearing of Black Cockatoo foraging habitat in association with the road works. This RMP has been prepared to set out the strategies for the design, implementation, monitoring and maintenance activities of revegetation works.

## 1.5 Objectives

The overall purpose of the RMP is to provide a net increase in the area and quality of native vegetation within the offset site through the revegetation of 2.87 ha of vegetation in Good to Degraded condition. The objectives of the RMP are as follows:

- To guide the successful revegetation of 2.87 ha within an area to be ceded under a Conservation Covenant
- To revegetate with native species of local provenance of habitat value to Black Cockatoos
- To prepare a species list for revegetation of the site including specifications as to what will be planted and the planting methodology
- Outline soil preparation measures
- To control and prevent further spread of weeds within the revegetation area
- To identify potential feral animals and protect tube stock from these species

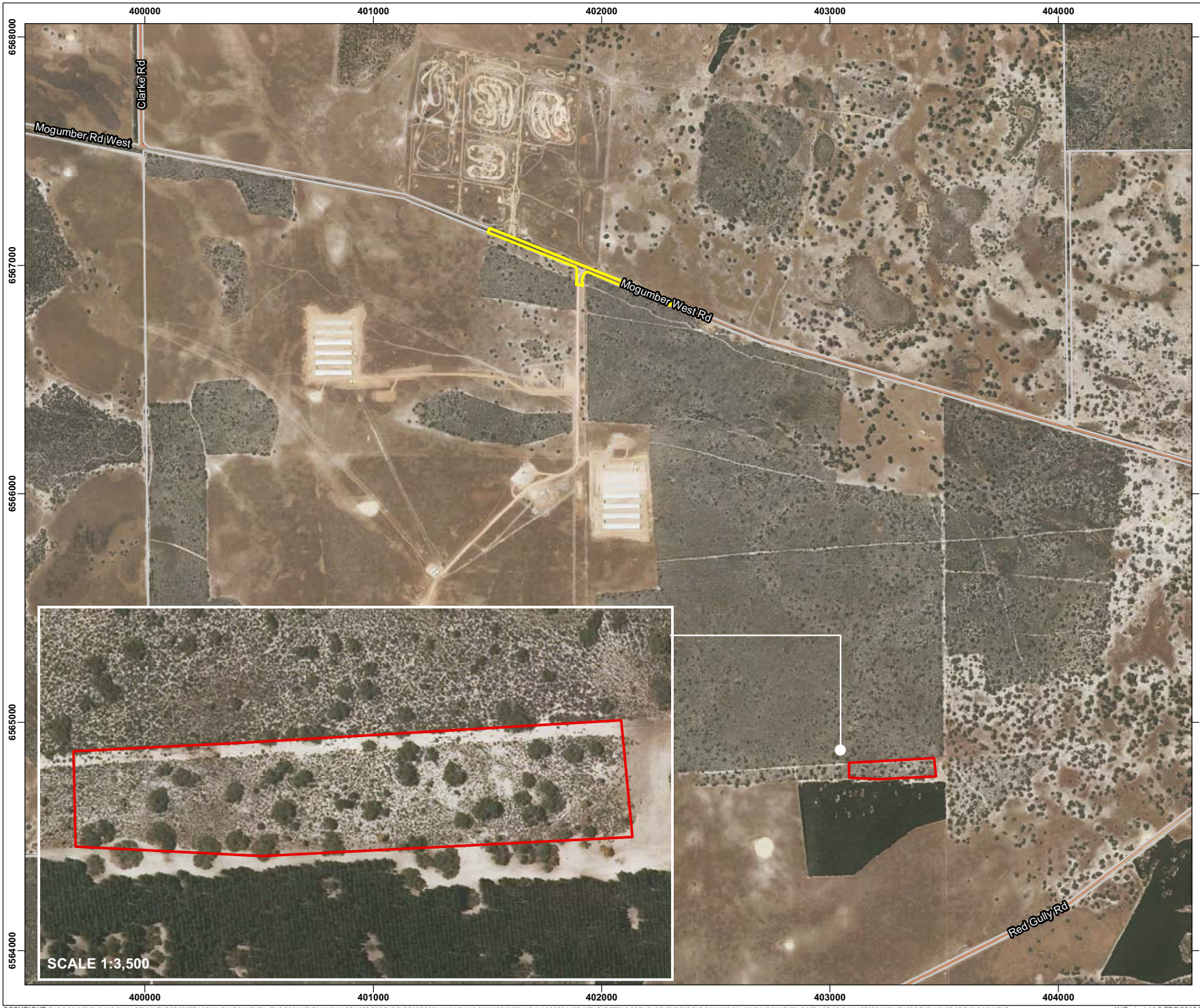
- Develop contingency measures for failure to meet success criteria.

## 1.6 Legislation and Regulatory Framework

Legislation directly relevant to the management of native vegetation in Western Australia and to this RMP is provided in Table 2.

**Table 1: Relevant Legislation Relating to Vegetation Health Management**

| Legislation | Application |
|---|---|
| *Biodiversity Conservation Act (WA)* | Conservation and protection of biodiversity and biodiversity components. This Act repeals the *Wildlife Conservation Act 1950.* |
| *Conservation and Land Management Act 1984 (WA)* | Provides for the vesting or reservation of land for conservation purposes, and the ability to enter into agreements with private landholders and pastoral leases. It establishes a number of statutory bodies including the Conservation and Parks Commission |
| *Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)* | Protection on environmental matters of national significance. |
| *Environment Protection Act 1986 (WA)* | Prevention, control and abatement or pollution and conservation protection and enhancement of environment. |
| *Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)* | Regulates the clearing of native vegetation. |
| *Rights in Water and Irrigation Act 1914 (WA)* | Relates to rights in water resources, to make provisions for the regulation, management, use and protection of water resources, to provide for irrigation schemes and for related purposes. |




## Legend

- Road Project Area
- Lot Boundaries
- Local Roads
- Offset Site

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS
- LOCALITY MAP SOURCED LANDGATE 2019
- OTHER DATA SOURCED LANDGATE 2019
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2019
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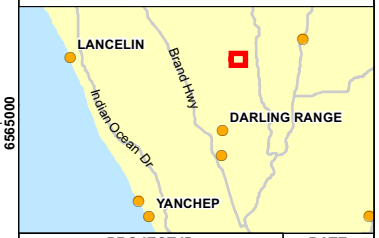
### LOCALITY MAP




| PROJECT ID | DATE |
|---|---|
| 3915 | 03/07/2020 |

**HORIZONTAL DATUM AND PROJECTION**
GDA 1994 MGA Zone 50

| CREATED | CHECKED | APPROVED | REVISION |
|---|---|---|---|
| LF | NW | NW | 0 |

**Western Riverlands Poultry**
**Mogumber Road, Mogumber**

**Offset Revegetation Management Plan**

# Figure 1
**Site Location**



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# 2 Existing Environment

## 2.1 Climate

The nearest official Bureau of Meteorology (BoM) weather station currently in operation with monthly climate data is the Walebing Station (#008151) located approximately 50 km north east of the site. The climate is described as Mediterranean being hot, dry summers and cool wet winters. The annual mean maximum temperature is 24.9˚C and the annual mean minimum temperature is 10.8˚C. The annual average rainfall is 475.4 mm (Bureau of Meteorology, 2020).

## 2.2 Surrounding Land Uses

The proposed offset site is adjacent to one of the largest remnant areas of heath and woodlands in Excellent condition remaining within the Victoria Plains area. A pine plantation is located to the south of the site. Historical aerial photography indicates that the pine plantation was established between 2003 and 2006. The adjacent pine plantation is not owned by Western Riverlands Poultry, however, is covered by a covenant. The pine plantation underwent pruning in January 2020 and will not be harvested for another 5 to 10 years. All key stakeholders will be made aware of the offset site and revegetation works prior to any work involving the plantation, ensuring that any disturbance is mitigated appropriately.

## 2.3 Soil and Landscapes

### 2.3.1 Topography

The topography is variable across the site with elevation ranging between 177 m Australian Height Datum (AHD) and 182 m AHD.

### 2.3.2 Geology

The 1:250 000 surface geology profile mapping (Geoscience Australia, 2008) indicates the geology of the site is typically as follows:

- Sand Plain 38499: Sand or gravel plains; quartz sand sheets commonly with ferruginous pisoliths or pebbles, minor clay; local calcrete, laterite, silcrete, silt, clay, alluvium, colluvium, Aeolian sand and
- Ferruginous duricrust 38498: Pisolitic, nodular or vuggy ferruginous laterite, some lateritic soils, ferricrete, magnesite, ferruginous and siliceous duricrusts and reworked products, calcrete, kaolinised rock, gossan, residual ferruginous saprolite.

Soil subsystems mapping identified that the site is within the following soil subsystem:

- 222Cp_3b, Capitella 3 gentle slope Phase: Very gently inclined slopes, plain with some dunes. Colluvium, pale deep and gravelly deep sand (DAFWA 2012).

## 2.4 Hydrology

Review of available surface water feature mapping did not identify any mapped water features within or in the vicinity of the Site (Department of Biodiversity Conservation and Attractions, 2019b). Wetlands of the Swan Coastal Plain have been described and mapped by (Hill *et al.*, 1996) and assigned

a management category reflecting their condition. The Department of Biodiversity Conservation and Attractions (DBCA) Geomorphic Wetlands dataset identifies no wetlands occurring on or within the immediate vicinity of the Site. The nearest geomorphic wetlands are classified as 'Conservation Category' (CCW) and are located in excess of 500 m east of the Site (Department of Biodiversity Conservation and Attractions, 2019b). Groundwater and salinity levels across the site are unknown. However, a nearby WIN bore approximately 300 m to the north of the site has limited available data. The drill depth of this bore is 9.14 m below ground level (mbgl); however, no static water level has been reported. The depth to groundwater is potentially around the drill depth of approximately 9 m (Department of Biodiversity Conservation and Attractions, 2019a).

## 2.5 Broad Vegetation

Mapping of the vegetation of Perth, WA was completed on a broad scale (1:250,000) by Beard (1981). These vegetation units were re-assessed by Shepherd, Beeston and Hopkins (2002) to account for clearing in the intensive land use zone, dividing some larger vegetation units into smaller units. There are two Beard/Shepherd vegetation units in the site. The Shepherd et al. (2001) vegetation type is described below, and its representation within the State, IBRA region, IBRA subregion and Local Government are shown in Table 2.

**Table 2: Broad Vegetation Types and its State and Regional Representation(Government of Western Australia, 2019)**

| | Pre–European (ha) | Current Extent (ha) | Remaining (%) | Remaining in DBCA Reserves (%) |
|---|---|---|---|---|
| IBRA Region Total Swan Coastal Plain | 1,501,221.93 | 578,997.37 | 38.57 | 38.47 |
| Statewide/IBRA Region – Swan Coastal Plain | | | | |
| Beard Veg Assoc. No. 1015 | 19,556.98 | 6,639.02 | 33.95 | 44.09 |
| Beard Veg Assoc. No. 949 | 218,193.94 | 122,966.39 | 56.36 | 55.90 |
| In IBRA Region SWA1 | | | | |
| Beard Veg Assoc. No. 1015 | 15,871.79 | 6,240.65 | 39.32 | 46.20 |
| Beard Veg Assoc. No. 949 | 25,507.44 | 16,134.07 | 63.25 | 39.77 |
| Local Government Authority – Shire of Victoria Plains | | | | |
| Beard Veg Assoc. No. 1015 | 1,230.29 | 503.59 | 40.93 | - |
| Beard Veg Assoc. No. 949 | 925.23 | 387.02 | 41.83 | - |

## 2.6 Surveyed Vegetation and Flora

Lot 10 Mogumber Road was inspected by 360 Environmental Principal Botanist on 7 May 2020 to select and undertake a site assessment for suitable areas for an offset to counteract the clearing on Mogumber Road easement. The site was traversed on foot and floristic data was collected. Several options were explored, however a 2.87 ha area south of the large vegetation remnant within the Lot was decided as the best option based on site characteristics i.e. vegetation type, vegetation condition and location to existing remnant patch of vegetation.

One natural vegetation type was described for the proposed clearing site when it was surveyed in 2018, this was described as:

- Low woodland of *Eucalyptus todtiana, Banksia attenuata, Banksia prionotes* over tall shrubland of *Adenanthos cygnorum, Lambertia multiflora* over mid sparse shrubland of *Allocasuarina humilis, Acacia pulchella, Xanthorrhoea drummondii sans lat* over low isolated shrubs of *Gastrolobium linearifolium* and *Acacia stenoptera*.

The vegetation type of the offset site is similar (see below) and provides Black cockatoo foraging habitat. The density of Black cockatoo foraging habitat will be increased at the offset site through the implementation of the RMP.

### 2.6.1 Vegetation Type

One vegetation type was recorded for the Site:

Low open woodland of Eucalyptus todtiana, Banksia attenuata and Nuytsia floribunda over low open shrubland of Allocasuarina humilis, Eremaea pauciflora and Xanthorrhoea drummondii sans lat. over low sparse sedgeland of Patersonia occidentalis and Mesomelaena pseudostygia (Figure 2) (Plates 1 and 2).

**Plate 1: Representative vegetation (1) within offset Site**

**Plate 2: Representative vegetation (2) within offset Site**

### 2.6.2 Condition

The majority of the offset is considered to be in Good condition with localised pockets in Degraded condition. The offset site has native vegetation that has some community structure, however, there are patches throughout the offset that are low in diversity or consists of bare sand. The northern edge of the offset is a cleared track that separates it from the remnant vegetation to the north. The track is

approximately 0.32 ha and once this has been revegetated it will join the offset to the remnant vegetation that is in excellent condition.

### 2.6.3 Flora of Conservation Significance

One Threatened and one Priority flora species listed under the *Environment Protection and Biodiversity Act 1999* (EPBC Act) and gazetted as Declared Rare Flora (Threatened) pursuant to the WA *Biodiversity Conservation Act 2016* (BC Act) was recorded in the offset site.

*Banksia mimica* (DRF/T) is listed under the EPBC Act as Endangered and gazetted as Threatened pursuant to the BC Act. Individuals were opportunistically recorded totalling approximately 50 plants.

The offset site is also going to be the receiving location of the 25 *Banksia mimica* (T) shrubs that will be to be translocated as part of a NVCP 8211/1 conditions. The vegetation type present is considered appropriate taking into consideration the numerous *B. mimica* (T) plants already located within the site. This confirms that that preferred habitat for the species is present. The management of the offsite site will not only protect the existing population of the existing *B. mimica* (T) plants but also the translocated individuals.

In addition, *Banksia dallanneyi subsp. pollosta* which is a Priority 3 (P3) species was found at numerous locations within the offset.

### 2.6.4 Flora of Interest

*Xanthorrhoea drummondii* sans lat. is a dominant understorey species within the offset. The species is of interest as it has features that are similar to *X. drummondii* but do not match current known collections from the WA herbarium. This specimen is potentially a new species, however, the taxonomy of the genus group is not currently being studied by a taxonomist to determine its name.

## 2.7 Fauna

A fauna survey was undertaken for Lot 10 Mogumber in 2018 (360 Environmental Pty Ltd, 2018), however, this did not include the offset site. Notwithstanding this, the field survey recorded 56 terrestrial vertebrate fauna species in 18 birds, three reptiles and five mammals within the vicinity of the offset site. No species of conservation significance were recorded.

The same fauna survey also recorded:

- Evidence of Carnaby's Black Cockatoo foraging
- No evidence of breeding or roosting.

The offset site was not included in the Black Cockatoo survey.


## Legend

- Offset Site
- Fencing
- Gate Location
- Signage

**Vegetation Type**

- EtBa (2.54 ha)
- Cleared (0.32 ha)

**Vegetation Condition**

- Good-Degraded
- Cleared

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS
- LOCALITY MAP SOURCED LANDGATE 2019
- OTHER DATA SOURCED LANDGATE 2019
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2019
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**LOCALITY MAP**


| PROJECT ID | DATE |
|---|---|
| 3915 | 07/07/2020 |

**HORIZONTAL DATUM AND PROJECTION**
GDA 1994 MGA Zone 50

| CREATED | CHECKED | APPROVED | REVISION |
|---|---|---|---|
| LF | NW | NW | 0 |

**Western Riverlands Poultry**
**Mogumber Road, Mogumber**

**Offset Revegetation Management Plan**

# Figure 2
**Site Parameters**



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# 3 Implementation

## 3.1 Reference Sites

Previous biological assessments have been undertaken within the remnant vegetation north of the offset site (360 Environmental Pty Ltd, 2018). As part of the flora and vegetation survey of this area 12 permanent quadrats were established. Five of these quadrats are within the same vegetation type as the proposed clearing area and offset site. Of the five quadrats, three will be used as reference (control) sites for the monitoring of the success of the management of the offset site (see Appendix C). The three quadrats are between 0.55 km and 1.3 km from the offset site and are described as:

- Low open woodland of *Eucalyptus todtiana, Banksia attenuata and Nuytsia floribunda* over low open shrubland of *Allocasuarina humilis, Eremaea pauciflora* and *Xanthorrhoea drummondii* sans lat. over Mid sparse sedgeland of *Caustis dioica* and *Mesomelaena pseudostygia.*

## 3.2 Site Preparation

### 3.2.1 Earthworks and Topsoil Management

Due to the current condition of the topsoil of the offset site, no earthworks or soil manipulation is required. The cleared track consists of loose uncompacted sand that does not require deep ripping. The patches of bare sand throughout the offset is amongst native vegetation, therefore soil disturbance is recommended to be avoided.

### 3.2.2 Weed Control

Targeted weed spraying will be undertaken by traversing the entire site by foot and spot spraying for weeds prior to the planting of tubestock and direct seeding.

## 3.3 Vegetation Establishment

It is proposed that the revegetation will be undertaken using a combination of direct seeding from the remnant vegetation within the property and planting of tube stock of localised tree species. Using a combination of vegetation establishment methods will provide a higher revegetation success rate.

### 3.3.1 Seed Collection

Seed collectors will be commissioned to undertake seed collection from the property. All seed collected will be stored and treated to ensure plants of local provenance is used in the revegetation program. The timing of collection must be at the correct stage of maturity to maximise viability and success of direct seeding methods. For the south west region this is typically between October and March.

The seed collecting activities will focus on collecting *Eucalyptus todtiana* and *Banksia attenuata* seeds, however, understorey species from the same vegetation type will also be collected to supplement the revegetation works and infilling of the bare patches of soil. This will create a more natural vegetation community structure and habitat source.

### 3.3.2 Tubestock Infill Planting

The site will undergo infill planting of Black Cockatoo foraging species, approximately 1500 individual trees are proposed to be planted during winter 2022 (Table 3). The infill planting density will be variable considering that the offset site has patches of remnant vegetation and cleared areas.

The density of the cleared tracks will be undertaken at one tube stock per 10 $m^2$, equating to approximately 220 trees/tubestocks. The remaining tubestock will be used for infilling bare patches and where required amongst the remnant vegetation. This will prevent damage to existing vegetation and create a natural vegetation community structure.

Tubestock species to be planted will be selected based on local provenance and Black Cockatoo habitat value. Tubestock will be grown from seed collected from the property and grown in a nursery accredited under the Nursery Industry Accreditation Scheme of Australia. Prior to acceptance of the tube stock, Dieback testing (i.e. *Phytophthora* spp. and *Pythium* sp.) will be undertaken to ensure tube stock are disease free.

**Table 3: Proposed Tubestock Species List**

| Proposed Number of Plants | Plant Form | Species | Black Cockatoo Value |
|---|---|---|---|
| 750 | Tree – Over Storey | *Eucalyptus todtiana* | Breeding, Foraging, Roosting |
| 750 | Tree – Mid Storey | *Banksia attenuata* | Foraging |

Planting will be undertaken between May and July when expectant soil moisture is at its maximum from seasonal rainfall. Planting in winter will provide adequate available soil water and support the establishment of tube stock. Timing of planting and seeding will occur just prior to and during expected rain events to maximise soil moisture levels. Tubestock will be hardened, vigorous and free of disease and insect pests at the time of planting. Tubestock will also have adequate and healthy root mass readily evident when removed from the tube, sufficient to hold the potting medium together. Please note additional planting (in addition to the original 1500 tubestock) will be undertaken where required as a contingency measure.

Small augers and/or Pottipuki tree planting tools will be used to install tubestock and will adhere to the following planting method specifications:

- Individual seedlings will be removed from their container as to minimise damage to leaves, stem and root ball
- The root ball shall not be exposed or left to dry out and will be planted immediately
- If required, fertiliser will be placed in the bottom of the hole and covered with soil to ensure there is no contact between the roots and fertiliser
- The plant will be placed into the hole and backfill with soil free from weeds, stones, clods of sub soil and other extraneous matter
- The soil will be lightly compacted by hand or foot to remove air pockets
- Plants will be set plumb and level with the adjacent soil - ensuring no soil is placed against the stem of the root crown and

- Tree guards will be installed around each tube stock.

### 3.3.3 Direct Seeding

Direct seeding will be used for the establishment of understorey species. This technique is considered appropriate considering the offset site consists of remnant vegetation and the broad casting of seed within the bare patches is likely to be successful due to the cover and soil stability provided by surrounding vegetation. The species that will be used are those found to occur within the same vegetation type north of the offset site (see Appendix C).

### 3.3.4 Signage

Signage will be installed along the boundary and access point to the revegetation area (Figure 2). These signs will advise people that revegetation of the site has been undertaken. Signs will be placed in areas of highest visibility. All signage will be constructed and maintained by the proponent for the duration of the RMP. Signage will be established prior to the initial tubestock and direct seeding events.

### 3.3.5 Fencing

A perimeter rural style fence (such as 1.2 m high steel pickets and ringlock fencing) will be installed along the south, west and east boundaries of the revegetation area. Fencing will not be put along the northern boundary as the aim is to connect the offset to the remnant patch of vegetation. All fencing will be constructed and maintained by the proponent for the duration of the RMP. Fencing will be constructed within three months of receiving NVCP approval (acceptance of the offset strategy and associated RMP). Fencing will deter grazing and reduce unauthorised access to the site by either foot or off-road vehicles. Proposed fencing areas are shown in Figure 2.

# 4 Monitoring

Monitoring of the revegetation will occur every spring for the duration specified by DWER.

## 4.1 Quadrat Monitoring

Quantitative vegetation monitoring will be conducted using quadrats (10 x 10m) which will be permanently installed in the offset site. The number and location of these quadrats will be determined once revegetation has been completed. Quadrats will be established in areas that provide a good representative sample of the revegetation activities. Monitoring data obtained from the quadrats will be used to assess the success of revegetation against completion criteria. As discussed in section 3.2 three pre-existing quadrats will be used to determine the success of the revegetation, these are detailed in Appendix C.

At each of the quadrats (controls and offset) the following will be recorded:

- A list of all species present in the quadrat, as well as their density and height
- Vegetation condition using EPA (2016) condition scale
- A photo of the vegetation from the north west corner of the quadrat
- Any other general observation e.g. condition of plant protectors, litter, evidence of feral animals.

## 4.2 Monitoring Report

Monitoring reports will be compiled within three months following each monitoring event. These reports will be sent to DWER for their records as part of the annual monitoring report (typically a NVCP approval condition) and will:

- Outline the date and description of works undertaken during the reporting period
- Record and evaluate the success of revegetation works through analysis of data (both spatial and temporal trends against control and revegetated sites)
- Identify any follow up remedial or maintenance works to be undertaken to meet the completion criteria and
- Set out a program for the remedial or maintenance works.

# 5 Completion Criteria

Completion criteria include species diversity, density and weed cover. The completion criteria are outlined in (Table 4). It should be noted that until the control quadrats have been surveyed during the same monitoring event as the quadrats in the offset, the completion criteria could change slightly. The baseline criteria stated below is based on the averages of the survey undertaken in 2018 of the three control quadrats. The performance against the completion criteria targets will determine if contingency measures are required.

**Table 4: Completion Criteria**

| Criterion | Baseline | Completion target | Completion Criteria |
|---|---|---|---|
| 1 | Site species richness is 28 (native sp. only). | Minimum of 60% of native species returned, based on reference sites. | The revegetation site needs to achieve a minimum species richness of 16 native species |
| 2 | There are two dominant tree species. | Have the same dominant tree species present at reference sites. | The revegetation site needs to have the two dominant tree species (*Banksia attenuata,* and *Eucalyptus todtiana*) recorded at the reference sites. |
| 3 | Vegetation is in Excellent condition | The entirety of the offset site is to be in Good condition or higher | The entirety of the offset site is to be in Good condition or higher |
| 4 | Weeds are absent at reference sites | Weed cover is no greater than 15% cover | The revegetation site should have a maximum of 15% weed cover |
| 5 | No declared weeds are present. | Managed as required by the Biosecurity and Agriculture Management Regulations 2013. | Absent |
| 6 | Bare ground is 20%. | No more than 5% greater than in the reference sites. | The revegetation site average for bare ground is to be no more than 25% |
| 7 | Clearing will result in loss of Black Cockatoo habitat. | The site must be revegetated to at least the cover or density of the reference sites using *Banksia attenuata* and *Eucalyptus todtiana* which are high to medium priority food species. | The revegetation site needs to have a minimum of stems/ha for:<br>• *Banksia attenuata* 150 stems/ha<br>• *Eucalyptus todtiana* 100 stems/ha |
| 8 | | Ceded to conservation covenant | The successful revegetation area is ceded as conservation covenant following the successful completion of revegetation |

# 6 Contingency Measures and Management

The effectiveness of the RMP will be determined by set management actions and expectations. The outcomes of the RMP will contribute to ongoing improvements in management actions to ensure an adaptive management approach is adopted.

An effective long-term RMP must be adaptive. Innovations in monitoring techniques and methods will be incorporated into the program design over time. This would, however, be dependent on, and driven by, the quality and quantity of data collected on a temporal and spatial scale. The outcomes from the RMP will be easily interpretable by all stakeholders and allow for responsive environmental management decisions, if required prior to detrimental impacts occurring.

## 6.1 Adaptive Management

The Western Riverlands Poultry will implement adaptive management practices to learn from the implementation of mitigation measures, monitoring and evaluation against management targets, to more effectively meet the conditioned environmental objectives stated in section 7. Adaptive management practices that will be assessed for the RMP and as part of this approach may include:

- Evaluation of the monitoring program, data and comparison to baseline data and reference sites on an annual basis to verify responses to activities
- Revision of priorities as a result of monitoring outcomes
- Review of data and information gathered over the review period that has increased understanding of site environment in the context of the regional ecosystem
- Review of management actions as the project matures and new management measures and technologies become available that may be more effective for vegetation health monitoring
- Assessment of changes which are outside the control of the project and the management measures identified (i.e. external activities within the area or region; regional change affecting vegetation health management like drought)
- Evaluation and introduction of new or different monitoring methods due to changes in technology

Table 5 lists several possible items and actions proposed to address or mitigate issues that may arise during the design or implementation of this plan. The completion criteria for determining if contingency measures are required are outlined in Table 4.

**Table 5: Contingency Measures**

| Item | Issue | Possible Actions |
|---|---|---|
| Revegetation Success | Monitoring indicates revegetation areas do not meet completion criteria | • Determine missing vegetation components (via monitoring report)<br>• Identify likely cause of failure (e.g. weeds, lack of water, inappropriate timing of revegetation, lack of nutrients, poor soil condition, lack of water, insect/fungus attack, dieback, predation by herbivores)<br>• Address cause of failure (this may include watering strategies, mulching, soil stabilisation, pest control, tree guards) |

| Item | Issue | Possible Actions |
|---|---|---|
| | | • Plan infill planting to compensate for missing vegetation components. |
| Plants | Inadequate tube stock available in first year | Commission alternative nurseries to germinate stock.<br>Plant additional tube stock in subsequent years. |
| Signage | Signs that alert of revegetation areas are stolen or damaged | Replace signage |
| Bush Fire Management | Revegetation area experiences a bush fire occurrence. | Undertake an assessment of bush fire impact within revegetation area. Undertake contingency planting where necessary. |
| Fencing | Fencing is damaged | Replace or repair affected fencing |

# 7 Revegetation Schedule and Responsibility

Works associated with the Revegetation is expected to commence in 2020. Activities of the revegetation project are summarised in Table 6.

**Table 6: Schedule of Actions**

| Stage | Action | Responsibility | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|
| Completion Criteria | Reference site surveys and development of completion criteria | 360 Environmental undertook a detailed flora and vegetation survey of the remnant vegetation in 2018 and used the results to select reference sites and the completion criteria. | NA | NA | NA | NA | NA | NA |
| Site Preparation | Signage | Proponent to construct and maintain for duration of RMP (within 3 months of NVCP approval) | x | | | | | |
| | Fencing | Proponent to construct and maintain for duration of RMP (within 3 months of NVCP approval) | x | | | | | |
| | Weed Control | Proponent to contract suitably qualified professional | | x | x | | | |
| Vegetation Establishment | Seed Collection and Management | Proponent to contract suitably qualified professional | x | x | | | | |
| | Sowing of Tube stock | Proponent to contract suitably qualified professional | | x | | | | |
| | Plant tube stock and direct seed | Proponent accompanied by suitably qualified professional | | | x | | | |
| Monitoring | Vegetation monitoring against criteria | Proponent to contract suitably qualified professional | | | | X | X | X |

| Stage | Action | Responsibility | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|
| Maintenance and Contingency | Weed Control | Proponent to contract suitably qualified professional | X | X | | | | |
| | Remedial planting | Proponent to contract suitably qualified professional/or undertake in house | | | | | | If required |
| Reporting | Annual progress Report | Proponent to contract suitably qualified professional | | | X | X | X | X |

# 8 Report Disclaimer

This report is produced strictly in accordance with the scope of services set out in the contract or otherwise agreed in accordance with the contract. 360 Environmental makes no representations or warranties in relation to the nature and quality of soil and water other than the visual observation and analytical data in this report.

In the preparation of this report, 360 Environmental has relied upon documents, information, data and analyses ("client's information") provided by the client and other individuals and entities. In most cases where client's information has been relied upon, such reliance has been indicated in this report. Unless expressly set out in this report, 360 Environmental has not verified that the client's information is accurate, exhaustive or current and the validity and accuracy of any aspect of the report including, or based upon, any part of the client's information is contingent upon the accuracy, exhaustiveness and currency of the client's information. 360 Environmental shall not be liable to the client or any other person in connection with any invalid or inaccurate aspect of this report where that invalidity or inaccuracy arose because the client's information was not accurate, exhaustive and current or arose because of any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to 360 Environmental.

Aspects of this report, including the opinions, conclusions and recommendations it contains, are based on the results of the investigation, sampling and testing set out in the contract and otherwise in accordance with normal practices and standards. The investigation, sampling and testing are designed to produce results that represent a reasonable interpretation of the general conditions of the site that is the subject of this report. However, due to the characteristics of the site, including natural variations in site conditions, the results of the investigation, sampling and testing may not accurately represent the actual state of the whole site at all points.

It is important to recognise that site conditions, including the extent and concentration of contaminants, can change with time. This is particularly relevant if this report, including the data, opinions, conclusions and recommendations it contains, are to be used a considerable time after it was prepared. In these circumstances, further investigation of the site may be necessary.

# 9 References

360 Environmental Pty Ltd (2018) *Mogumber Poultry Farm II Development Flora, Vegetation, Fauna and Black Cockatoo Assessment*. Perth, Australia.

Beard, J. S. (1981) *Swan, 1:1,000,000 vegetation series: explanatory notes to sheet 7*. Perth, Australia: University of Western Australia Press.

Bureau of Meteorology (2020) *Monthly Climate Statistics*. Available at: www.bom.gov.au/climate/data.

Department of Biodiversity Conservation and Attractions (2019a) *DBCA Legislated Lands and Waters (DBCA-011) (GIS dataset)*. Perth, Australia. Available at: https://catalogue.data.wa.gov.au/dataset/dbca-legislated-lands-and-waters.

Department of Biodiversity Conservation and Attractions (2019b) *Geomorphic Wetlands, Swan Coastal Plain (GIS Dataset)*. Perth, Western Australia.

Geoscience Australia (2008) *Surface geology of Australia 1:1,000,000 scale, Western Australia (GIS dataset)*. Canberra, Australia.

Government of Western Australia (2019) *2018 Statewide Vegetation Statistics - Full Report*.

Hill, A. L. *et al.* (1996) *Wetlands of the Swan Coastal Plain Volume 2b Wetland mapping, classification and evaluation*. Perth, Australia: Water and Rivers Commision, Department of Environmental Protection.

Shepherd, D. P., Beeston, G. R. and Hopkins, A. J. M. (2002) *Native Vegetation in Western Australia Technical Report 249*. Perth, Australia.

# Appendices

# Appendix A
# Mid-West/Wheatbelt Joint Development Assessment Panel Approval (DAP/17/01175)

Government of **Western Australia**
Development Assessment Panels

LG Ref: 02/2017
DoP Ref: DAP/17/01175
Enquiries: Development Assessment Panels
Telephone: (08) 6551 9919

Ms Denise Morgan
Cardno (WA) Pty Ltd
11 Harvest Terrace
West Perth WA 6005

Dear Ms Morgan

**Mid-West/Wheatbelt JDAP – Shire of Victoria Plains – DAP Application 02/2017 Determination**
**Lot 10 Mogumber Road West, Mogumber**
**Six broiler poultry farms with internal shared access**

Thank you for your application and plans submitted to the Shire of Victoria Plains on 20 January 2017 for the above development at the abovementioned site.

This application was considered by the Mid-West/Wheatbelt Joint Development Assessment Panel at its meeting held on 19 April 2017, where in accordance with the provisions of the Shire of Victoria Plains Local Planning Scheme No. 5, it was resolved to approve the application as per the attached notice of determination.

Should the applicant not be satisfied by this decision, a DAP Form 2 application may be made to amend or cancel this planning approval in accordance with regulation 17 of the *Planning and Development (Development Assessment Panels) Regulations 2011*.

Please also be advised that there is a right of review by the State Administrative Tribunal in accordance with Part 14 of the *Planning and Development Act 2005*. Such an application must be made within 28 days of the determination, in accordance with the *State Administrative Tribunal Act 2004*.

Should you have any queries with respect to the conditions of approval, please contact Ms Nathalee Petersen on behalf of the Shire of Victoria Plains on (08) 9576 4600.

Yours sincerely,

**DAP Secretariat**

**20/04/2017**

Encl. DAP Determination Notice
Approved plans

Cc: Ms Nathalee Petersen
Shire of Victoria Plains
PO Box 21
CALINGIRI WA 6569

Government of **Western Australia**
Development Assessment Panels

## *Planning and Development Act 2005*

**Shire of Victoria Plains Local Planning Scheme No. 5**

**Mid-West/Wheatbelt Joint Development Assessment Panel**

# Determination on Development Assessment Panel Application for Planning Approval

**Location:** Lot 10 Mogumber Road West, Mogumber
**Description of Proposed Development**: Six broiler poultry farms with internal shared access

In accordance with regulation 8 of the *Planning and Development (Development Assessment Panels) Regulations 2011*, the above application for planning approval was **granted** on 19 April 2017, subject to the following:

**Approve** the construction of the proposed broiler poultry farming operation at Lot 10 Mogumber Road West, Mogumber as proposed in the DAP application reference DAP/17/01175 and accompanying plans CW953800-PLA-101 (Rev B), CW953800-PL-102 (Rev B), CW953800-PL-103 (Rev B) dated 17 January 2017 and D 04 dated 27 April 2016 and supporting documents in accordance with The Shire of Victoria Plains Local Planning Scheme 5, subject to the following conditions:

**Conditions**:

1. The development of the Poultry Broiler Farm shall be constructed in accordance with the stamped approved plans and supporting documentation, unless modified by a condition in this approval, and operated thereafter in accordance with the *Environmental Code of Practice for Poultry Farms 2004*.

2. This decision constitutes planning approval only and is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.

3. The construction of the incidental dwellings as shown on the approved plans is to occur concurrently with the construction of the sheds for the farm to which they are incidental.

4. Prior to the construction of 'Farm 4', an Odour, Noise, Dust and Light Management Plan is to be submitted and approved by the Shire of Victoria Plains, and is to:
    (a) Identify any surrounding sensitive land uses and provide details of how buffering can be implemented; or
    (b) Demonstrate that surrounding sensitive land uses will not be subjected to unacceptable levels of odour, noise, dust and light.

5. Access to and egress from the property for trucks and farm vehicles to be designed and constructed, at the applicant's expense to the satisfaction of the Shire of Victoria Plains having regard to the safety of vehicles travelling on Mogumber Road West.

6. Prior to the issue of a Building Permit, or any development being undertaken on-site, the Applicant shall submit to the Shire of Victoria Plains a Construction Management Plan and secure approval for:
    (a) the location, construction designs, drainage and surfacing standards for the multiple accesses to and from the site;
    (b) the delivery and storage of construction materials and equipment to the site;
    (c) the management of the fire risk on the site during the construction period;
    (d) the parking arrangements and provision of temporary amenities for contractors and subcontractors;
    (e) the management and storage of stormwater from site works, material lay down areas, internal roads, buildings and carparking areas in a manner to prevent site erosion and to contain all run-off within Lot 10;
    (f) the extent of earthworks proposed on-site, the method of stabilising those earthworks and any on-going management required to prevent wind or water borne erosion;
    (g) the extent of clearing required to provide for internal road access between farms and to achieve adequate bushfire safety standards;
    (h) other matters likely to be impact on surrounding properties; and
    (i) the management of construction waste.

    The Construction Management Plan shall be implemented at all times during the construction phase.

7. The applicant shall be responsible for the design, drainage, construction and all future maintenance of the internal roads and parking areas to a standard that provides all-weather access within the site.

8. The permanent signage shall be professionally designed, constructed, finished, installed and maintained thereafter, being kept clean and free from unsightly matter including graffiti at all times by the owner/occupier.

9. Bin storage areas shall be adequately ventilated and provided with water hose connections and graded floors to suitable floor wastes, with the content of the bins (including bird mortalities) disposed off-site on a regular basis to the satisfaction of the Shire of Victoria Plains.

10. At no time shall feed be stored outside of designated feed silos, so as to minimise potential for infestation by rodent and wild birds.

11. Landscaping is to be installed and maintained thereafter.

12. Prior to the issue of an Occupancy Permit, for the use of the first shed, the Applicant shall:
    (a) Submit to and receive the approval of the Shire of Victoria Plains for a Nutrient Management Plan detailing how poultry manure/litter will be managed to comply with the *Environmental Code of Practice for Poultry Farms 2004*;
    (b) Submit to and receive the approval of the Shire of Victoria Plains for a Soil Management Plan detailing how erosion and surface water / building run off will be managed to prevent export from Lot 10 or into significant on-site wetlands;

(c) Submit engineering plans, receive the approval and make suitable arrangements with the Shire of Victoria Plains to construct the access to and egress from the property for trucks and farm vehicles within Mogumber Road West; and
(d) Submit to and receive the approval of the Shire of Victoria Plains for any bunding or landscaping proposed on-site, the plant species to be used (with confirmation that the fire risk is being managed) and the management arrangements proposed to ensure the plantings reach maturity.

**Advice Notes**

1. Where an approval has so lapsed, no development shall be carried out without the further approval having first been sought and obtained.

2. This does not constitute a Building Permit, which must be applied for separately and be certified by an independent building surveyor prior to lodgement.

3. An application for a crossover or any other works on the verge area shall be required prior to any works. The applicant should liaise with the Shire's Works Manager.

4. The Shire of Victoria Plains acknowledges that the construction of the development is to be staged.

5. The applicant is responsible for all costs associated with any required road upgrades, including design and approvals.

6. With respect to the landscaping proposal, the Shire of Victoria Plains recommends the use of native plants which minimise the use of water.

7. No unauthorised signage is to be displayed.

8. Each farm with capacity for 8 sheds shall be constructed in accordance with Plan CW 953800-PL-102 (Rev B) which is labelled Farm 2.

Where an approval has so lapsed, no development shall be carried out without further approval having first been sought and obtained, unless the applicant has applied and obtained Development Assessment Panel approval to extend the approval term under regulation 17(1)(a) of the *Planning and Development (Development Assessment Panels) Regulations 2011*.


Legend

- Site Boundary
- Indicative subdivision boundary
- Footprint of sheds with gravel hardstand
- Direction of exhaust fans
- Environmentally sensitive areas (ESAs)
- 6m power line buffer
- Vegetation
- Significant vegetation
- Manager's Dwelling within 100x100m envelope
- Domestic access, 6m wide, 17.5m diameter turn around
- Internal access road, 10m wide
- Farm infrastructure - car park, amenity building, pump shed and water tanks; generator shed and gas tank. Refer indicative farm layouts for general arrangement
- 1km sensitive landuse buffer

| Rev. | Date | Description | Des | Verif | Appd |
|---|---|---|---|---|---|
| B | 17.01.2017 | DEVELOPMENT APPROVAL | KL | | AS |
| A | 13.01.2017 | ISSUED FOR REVIEW | KL | | |

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| | | |
|---|---|---|
| Drawn | RL | Date 13/01/2017 |
| Checked | AS | Date 13/01/2017 |
| Designed | KL | Date 23/12/2016 |
| Verified | | Date |
| Approved | AS | 17/01/2017 |



Client: SBT Property Trust Poultry Farms

Project: Proposed Poultry Broiler Farm
Lot 10, Mogumber Road
Red Gully, WA

Title: Site Plan

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

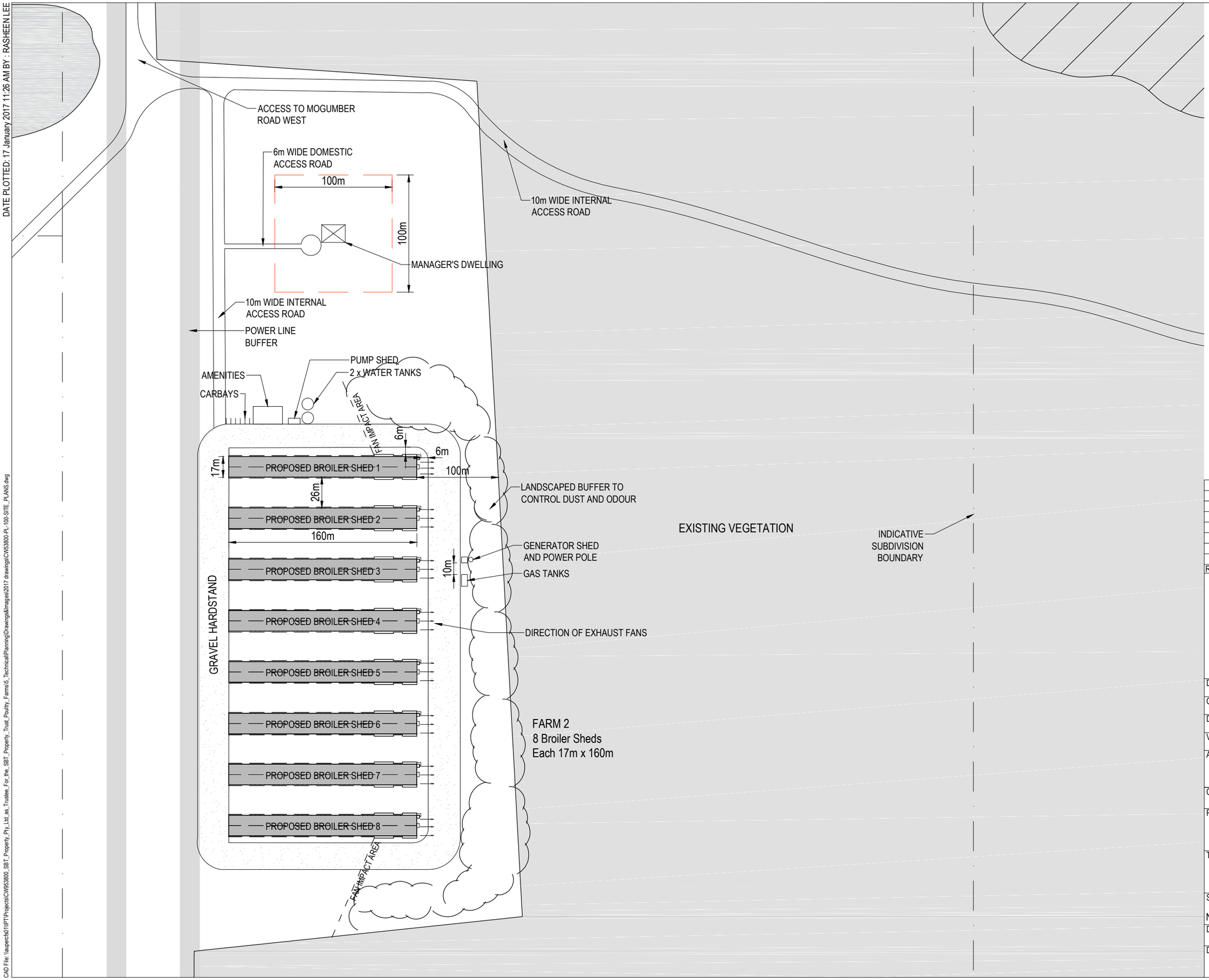
| DATUM | DATE | Scale | Size |
|---|---|---|---|
| AHD | Jan 2017 | 1:20,000 | A3 |

Drawing Number: CW953800-PLA-101
Revision: B

DEVELOPMENT ASSESSMENT PANEL

APPROVED

19-Apr-2017




| Rev. | Date | Description | Des | Verif | Appd |
|---|---|---|---|---|---|
| B | 17.01.2017 | DEVELOPMENT APPROVAL | KL | | AS |
| A | 13.01.2017 | ISSUED FOR REVIEW | KL | | |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| Checked | AS | Date 13/01/2017 |
| Designed | KL | Date 23/12/2016 |
| Verified | | Date |
| Approved | AS | 17/01/2017 |



Client: SBT Property Trust Poultry Farms

Project: Proposed Poultry Broiler Farm
Lot 10, Mogumber Road
Red Gully, WA

Title: Indicative Farm Layout
8 Broiler Sheds

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

| DATUM | DATE | Scale | Size |
|---|---|---|---|
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Drawing Number: CW953800-PL-102

Revision: B


DATE PLOTTED: 17 January 2017 11:26 AM BY : RASHEEN LEE

XREFs:
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DEVELOPMENT ASSESSMENT PANEL

APPROVED

19-Apr-2017

DATE PLOTTED: 17 January 2017 11:27 AM BY : RASHEEN LEE

MOGUMBER ROAD WEST

SITE BOUNDARY

100m

100m

MANAGER'S DWELLING

6m DOMESTIC ACCESS ROAD

6m WIDE DOMESTIC ACCESS ROAD

FARM 3
6 Broiler Sheds
Each 17m x 160m

17m

GRAVEL HARDSTAND

PROPOSED BROILER SHED 1

PROPOSED BROILER SHED 2

PROPOSED BROILER SHED 3

PROPOSED BROILER SHED 4

PROPOSED BROILER SHED 5

PROPOSED BROILER SHED 6

26m

160m

6m

6m

100m MIN.

EXISTING VEGETATION

CARBAYS

AMENITIES

PUMP SHED
2 x WATER TANKS

FAN IMPACT AREA

FAN IMPACT AREA

10m

10m WIDE INTERNAL ACCESS ROAD

DIRECTION OF EXHAUST FANS

GAS TANKS

GENERATOR SHED AND POWER POLE

LANDSCAPED BUFFER TO CONTROL DUST AND ODOUR

EXISTING VEGETATION

EXISTING VEGETATION

INDICATIVE SUBDIVISION BOUNDARY

| Rev. | Date | Description | Des | Verif | Appd |
|---|---|---|---|---|---|
| B | 17.01.2017 | DEVELOPMENT APPROVAL | KL | | AS |
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|---|---|---|
| Drawn | RL | Date 13/01/2017 |
| Checked | AS | Date 13/01/2017 |
| Designed | KL | Date 23/12/2016 |
| Verified | | Date |
| Approved | | |



Client: SBT Property Trust Poultry Farms

Project: Proposed Poultry Broiler Farm
Lot 10, Mogumber Road
Red Gully, WA

Title: Indicative Farm Layout
6 Broiler Sheds

Status: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES

| DATUM | DATE | Scale | Size |
|---|---|---|---|
| AHD | Jan 2017 | 1:3000 | A3 |

Drawing Number: CW953800-PL-103

Revision: B

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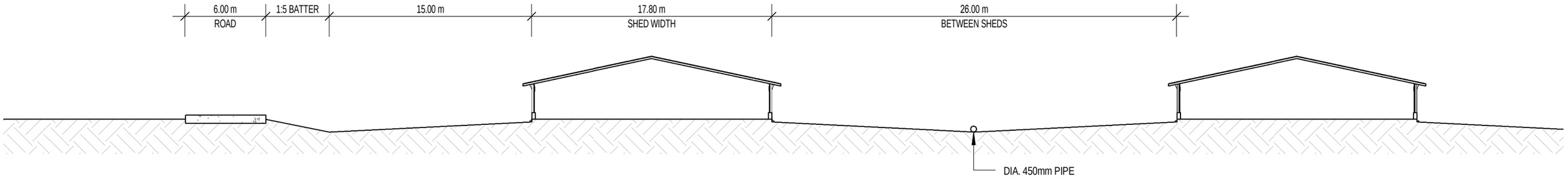
DEVELOPMENT ASSESSMENT PANEL

APPROVED

19-Apr-2017




1 / D 02 SECTION THROUGH TWO SHEDS

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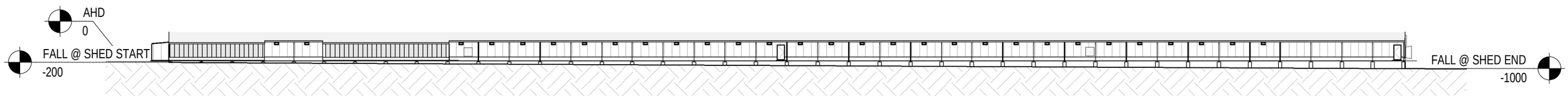


2 LONGITUDINAL SECTION

1 : 500

PROPOSED NEW CONSTRUCTION - preliminary drawings

SANTREV
THE POULTRY HOUSE CONSTRUCTION SPECIALISTS

SANTREV PTY LTD
PO Box 95, Ipswich
Queensland Australia 4305

Phone: 1300 815 888 (+61) 07 3281 3200
Fax: 1300 816 888 (+61) 07 3281 8295
Email: enquiries@santrevpoultry.com
Web: www.santrev.com.au
ABN: 43 124 970 878
BSA QLD: 1145296
OCBA SA: BLD211630
BC VIC: CB-L31372



| REV | DESCRIPTION | DATE |
|---|---|---|
| 00 | CONCEPT DRAWINGS | 04/01/2016 |
| 01 | FARM LAYOUT | 04/03/2016 |
| 02 | ADDED RING ROADS, WATER TANKS, HOUSES AND AMENITIES | 21/03/2016 |
| 03 | CONTOUR PLAN | 27/04/2016 |

**WA INGHAMS POULTRY PROJECT**

For: INGHAMS

Project Address:

MOGUMBER RD, RED GULLY
WESTERN AUSTRALIA

sheet title: SECTIONS THROUGH SHEDS

job no:

drawn by: A. SENARATH

date: 27/04/2016

scale (A3): As indicated

drawing no: **D 04**

# Appendix B
# DWER Request for Information

Government of Western Australia
Department of Water and Environmental Regulation

Your ref:
Our ref: CPS 8457/1
Enquiries: Kerri Wilkes
Phone: 6364 7153
Email: info@dwer.wa.gov.au

Ms Glenda Teede
Chief Executive Officer
Shire of Victoria Plains
28 Edmond Street
CALINIGRI WA 6569

Attn: Ms Katrina Cooper
*via email:* katrinacooper@360environmental.com.au;ceo@victoriaplains.wa.gov.au works@victoriaplains.wa.gov.au; robert.edwards@victoriaplains.wa.gov.au

Dear Ms Teede,

**APPLICATION TO CLEAR NATIVE VEGETATION UNDER THE *ENVIRONMENTAL PROTECTION ACT 1986* – REQUEST FOR INFORMATION**

I refer to the Shire of Victoria Plain's (the Shire) application for a Purpose Permit under section 51E(1) of the *Environmental Protection Act 1986* (the EP Act) for the proposed clearing of 0.85 hectares of native vegetation within Lot 10 on Deposited Plan 30340 and Mogumber Road West road reserve (PIN 11744279), Mogumber, for the purpose of road construction and upgrades (reference CPS 8457/1). The application was received by the Department of Water and Environmental Regulation (DWER) on 11 April 2019.

Thank you for the advice received on 14 April 2020 from Ms Katrina Cooper of 360 Environmental on behalf of the Shire, providing additional information to address the matters raised in DWER's letter of 24 March 2020. As a result of this information, the application area has been amended to 0.75 hectares of native vegetation within a 1.8 hectare footprint area.

DWER has reviewed the additional information provided, and has determined that an offset will be required to counterbalance the significant residual impacts to the proposed clearing of black cockatoo foraging habitat.

Please provide the information set out in Schedule 1 (attached), within 30 days from the date of this letter. You may request an extension (in writing), should you require additional time. Until this information has been received, the assessment timeframe for your application remains in stop the clock. This timeframe will recommence upon receipt of the required information.

If the required information is not received by the date set out above (or other date as agreed), the assessment process will recommence, and a determination will be made based on the information available. This may result in the refusal of the application.



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Locked Bag 10 Joondalup DC WA 6919
Telephone: 08 6364 7000 Facsimile: 08 6364 7001
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If you have any queries regarding the above information, please contact the Environmental Officer, as listed above.

Yours sincerely

Samara Rogers
MANAGER
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20*
*of the Environmental Protection Act 1986*

17 April 2020

Att: Schedule 1

## Schedule 1:

| Item | Information requirements | Specifications | Rationale |
|---|---|---|---|
| 1. | Identification of satisfactory environmental offsets. | Proposed environmental offsets are to be submitted using Appendix A of the *Clearing of native vegetation – offsets procedure* guideline, available via DWER's website.<br><br>Please note DWER uses a calculation broadly consistent with the Commonwealth Department of the Environment and Energy (DotEE) offset calculator. These calculations have assumed particular variables that directly impact on the adequacy of an offset, and as such are to be used as a guide only. | An offset is required to counterbalance the significant residual impacts of the proposed clearing including:<br><br>- 0.75 hectares of native vegetation in a good to excellent (Keighery, 1994) condition that comprises of significant foraging habitat for Carnaby's cockatoo (*Calyptorhynchus latirostris*).<br><br>Based on the current application area, DWER has undertaken some preliminary calculations of an appropriate revegetation offset using a calculation broadly consistent with the Commonwealth Department of the Environment and Energy (DotEE) offset calculator. These calculations have assumed particular variables that directly impact on the adequacy of an offset, and as such are to be used as a guide only.<br><br>Offset calculation has identified that revegetation from a completely degraded to good condition, as specified below, may be sufficient to adequately address the impacts of the proposed clearing:<br><br>- approximately 3.12 hectares of native vegetation that provides suitable foraging habitat for Carnaby's cockatoos.<br><br>Please note that for revegetation to be considered, a comprehensive revegetation plan would be required, and the site would have to be conserved in perpetuity. A guide to revegetation can be found at https://www.der.wa.gov.au/our-work/clearing-permits/48-guidelines-clearing-permits |

# Appendix C
# Reference Site Quadrat Sheets

**2668 Mogumber Farm**
**Site** MF03
**Described by** SF&NW
**Date** 29/03/2018
**Type** Q 10 x 10 m
**Location** Mogumber farm
**MGA Zone** 50K 402905 **mE** 6566095 **mN**
**Soil** white, grey sand
**Veg Condition** Excellent
**Fire Age** > 15 years
**Notes** Total PFC - 70%
Bareground - 10%
Leaf Litter - 25%
Logs - 0%

**SPECIES LIST:**

| Name | Cover | C Class | Height |
|---|---|---|---|
| *Acacia pulchella* var. *glaberrima* | 0.5 | | 1 |
| *Allocasuarina humilis* | 4 | | 1.3 |
| *Amphipogon turbinatus* | 1 | | 0.3 |
| *Banksia attenuata* | 0.1 | | 6 |
| *Banksia dallanneyi* subsp. *pollosta P3* | 0.5 | | 0.1 |
| *Boronia ramosa* subsp. *anethifolia* | 0.1 | | 0.25 |
| *Calytrix angulata* | 0.1 | | 0.2 |
| *Cassytha flava* | 1 | | c |
| *Caustis dioica* | 0.5 | | 0.3 |
| *Chordifex sinuosus* | 1 | | 0.1 |
| *Daviesia incrassata* subsp. *incrassata* | 1 | | 1 |
| *Desmocladus virgatus* | 0.1 | | 0.15 |
| *Eremaea pauciflora* | 7 | | 1.3 |
| *Eucalyptus todtiana* | 25 | | 6 |
| *Hibbertia* ? *crassifolia* | 0.1 | | 0.2 |
| *Hibbertia huegelii* | 0.5 | | 0.3 |
| *Hibbertia racemosa* | 0.1 | | 0.3 |
| *Jacksonia floribunda* | 1 | | 3 |
| *Leptospermum erubescens* | 5 | | 1.8 |
| *Leucopogon* sp. Carnamah (M. Hislop 2898) | 0.1 | | 0.1 |
| *Lomandra hermaphrodita* | 0.1 | | 0.25 |
| *Lyginia imberbis* | 4 | | 0.45 |
| *Melaleuca ciliosa* | 1.5 | | 1.1 |
| *Melaleuca seriata* | 2 | | 1.4 |
| *Patersonia occidentalis* var. *latifolia* | 0.5 | | 0.4 |
| *Petrophile linearis* | 0.1 | | 0.35 |
| *Petrophile seminuda* | 1 | | 1.1 |
| *Schoenus curvifolius* | 0.5 | | 0.25 |
| *Schoenus* pedicellatus | 1 | | 0.5 |
| *Scholtzia involucrata* | 0.1 | | 0.6 |
| *Stylidium piliferum* | 0.1 | | 0.01 |
| *Xanthorrhoea drummondii sans lat* | 1 | | 1.1 |

**2668 Mogumber Farm**
**Site** MF09
**Described by** SF
**Date** 29/03/2018
**Type** Q 10 x 10 m
**Location** Mogumber farm, undulating plain
**MGA Zone** 50K 402417 **mE** 6565139 **mN**
**Soil** white, grey sand
**Veg Condition** Excellent
**Fire Age** >10 years
**Notes** Total PFC - 70%
Bareground - 15%
Leaf Litter - 15%
Logs - 0%

**SPECIES LIST:**

| Name | Cover | Height |
|---|---|---|
| *Alexgeorgea nitens* | 2 | 0.1 |
| *Allocasuarina humilis* | 3 | 2 |
| *Banksia dallanneyi* subsp. ? *dallanneyi* | 4 | 0.1 |
| *Beaufortia elegans* | 1 | 0.7 |
| *Bossiaea eriocarpa* | 5 | 1 |
| *Calectasia narragara* | 0.1 | 0.5 |
| *Calothamnus sanguineus* | 4 | 1.4 |
| *Cassytha flava* | 0.5 | c |
| *Caustis dioica* | 1 | 0.5 |
| *Conostylis* aurea | 0.1 | 0.1 |
| *Daviesia decurrens* subsp. *decurrens* | 0.5 | 0.5 |
| *Eremaea pauciflora* | 4 | 0.7 |
| *Eucalyptus todtiana* | 15 | 5 |
| *Hakea smilacifolia* | 0.1 | 1 |
| *Isopogon drummondii P3* | 1 | 0.6 |
| *Jacksonia floribunda* | 0.5 | 0.1 |
| *Lambertia multiflora* var. *multiflora* | 3 | 1.4 |
| *Lepidosperma leptostachyum* | 0.1 | 0.2 |
| *Lyginia imberbis* | 0.5 | 0.5 |
| *Melaleuca ciliosa* | 1.5 | 1 |
| *Melaleuca clavifolia* | 1.5 | 0.5 |
| *Mesomelaena pseudostygia* | 5 | 0.5 |
| *Mesomelaena tetragona* | 1 | 0.5 |
| *Patersonia occidentalis* var. *latifolia* | 0.5 | 0.5 |
| *Petrophile linearis* | 0.1 | 1 |
| *Schoenus clandestinus* | 5 | 0.01 |
| *Synaphea spinulosa* subsp. *spinulosa* | 2 | 0.7 |
| *Tetraria octandra* | 0.5 | 0.2 |
| *Xanthorrhoea drummondii sans lat* | 8 | 1 |

**2668 Mogumber Farm**
**Site** MF12
**Described by** NW
**Date** 29/03/2018
**Type** Q 10 x 10 m
**Location** Mogumber farm, plain
**MGA Zone** 50K 403218 **mE** 6565434 **mN**
**Soil** white, grey sand
**Veg Condition** Excellent
**Fire Age** >10 years
**Notes** Total PFC - 55%
Bareground - 40%
Leaf Litter - 20%
Logs - 0%

**SPECIES LIST:**

| Name | Cover | Height |
|---|---|---|
| *Acacia pulchella* var. *glaberrima* | 0.5 | 0.5 |
| *Allocasuarina humilis* | 4 | 0.8 |
| *Amphipogon turbinatus* | 0.5 | 0.15 |
| Arnocrinum preissii | 0.1 | 0.35 |
| *Banksia attenuata* | 5 | 5.5 |
| *Beaufortia elegans* | 2 | 0.45 |
| *Bossiaea eriocarpa* | 0.5 | 0.35 |
| *Calothamnus sanguineus* | 2 | 1.1 |
| *Cassytha flava* | 0.5 | c |
| *Chordifex sinuosus* | 1 | 0.2 |
| *Conostylis teretifolia* subsp. *teretifolia* | 0.1 | 0.1 |
| *Desmocladus virgatus* | 1 | 0.3 |
| *Eremaea pauciflora* | 8 | 1.2 |
| *Eucalyptus todtiana* | 4 | 6.5 |
| *Gompholobium tomentosum* | 1 | 0.45 |
| *Hibbertia* ? *crassifolia* | 4 | 0.4 |
| *Leptospermum spinescens* | 1 | 0.6 |
| *Melaleuca seriata* | 5 | 1.2 |
| *Mesomelaena pseudostygia* | 4 | 0.4 |
| *Petrophile linearis* | 0.1 | 0.45 |
| *Petrophile macrostachya* | 2 | 1.1 |
| *Stirlingia latifolia* | 3 | 0.7 |
| *Stylidium nonscandens* P3 | 0. | 0.15 |
| *Synaphea* ? sparsiflora P2 | 0.5 | 0.4 |
| *Xanthorrhoea drummondii sans lat* | 7 | 1.1 |

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